Creative Expression's Enrichment Program Curriculum for Kindergarten thru Third Grade

Curriculum developed by

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#### **Handwriting**

#### <u>Phase I</u>

The development of printing is a skill that needs to be practiced daily. Remember your child's fine motor muscles in their fingers and thumb are developing still. The control of the hand and wrist is also being developed. By practicing this skill daily, the exercise of these fine motor muscles will help in the strengthening of the fingers, hand and wrist to work together. All students should start out with the manuscript method of learning how to trace to formulate each letter {ideally before kindergarten}. This allows students to follow the arrows of the alphabets as they record the finger wrist coordination in their brain.

Note: Children must also be coached on how to hold the writing utensil correctly. The index finger is on the top of the pencil/pen etc., almost lightly pushing the pencil along. The thumb comes along the side of the pencil so that the tip or top of the thumb is resting slightly on top of the pencil. If the pencil is being held correctly, it will feel and look like the thumb and index finger are pinching the pencil. The thumb works with the index finger. As the index finger gently pushes the pencil, the thumb help push the pencil back as well. The remaining three fingers work together, as they help hold the pencil in place. It's as if they are a brace that allows the pencil to stop when you want it to.

Make sure upper and lower case letters are done together. This helps the child know that they are one of the same but written differently.

Note: You may choose to purchase a manuscript printing book that would provide all the alphabets on lined paper. That would be fine; however, a better purchase would be to get the write and wipe of upper and lower case printing books. These books allow students to get plenty of practice without the hassle of getting copies to repeat the skill. You can purchase these books at most teacher stores.

• The optional kit for ages three through five come with the upper and lower case write and wipe printing books.

<u>My Picture-Word Journal</u> is the perfect book to do in the transitional stage. It is a book allows child to record and review the new words they are learning everyday, why also allowing them to use the <u>Kingfisher First Dictionary</u>. Each page is designed to cover six new words, along with a drawing box to illustrate their word. It also provides lines for definition or explanation of their words. My suggestion is use three boxes on every page for new words that the student has heard him/her self, and three words from the dictionary, thus giving them a wealth of vocabulary and expression. This becomes your child/ student vocabulary list.

• <u>My Picture-Word Journal</u> is provided in the optional kit.

#### <u>Phase II</u>

After your student has completed the manuscript alphabets, it is time to focus on penmanship printing -- the usage of the letters. Here is when a child moves to using handwriting dotted lined paper.

Use any children's reading book and have them to copy exactly what's on the page. Daily copying is the best practice for them to begin to get comfortable with formulating all the alphabets with prompting. This is also good for them to begin to recognize that sentences start with a capital letter and every sentence ends with a punctuation mark. They will also take note that there are other words that are capitalized in the middle of a sentence as well. Remember their sense of sight is at work while they write. Here's how to get started.

Materials needed: Handwriting dotted lined paper, pencil and your choice of reader

- Start with at least a page a day or 20 minutes a day. {The time limit should help you choose the right book.}
- Make sure you instruct student to start at the edge of the left hand side of the paper.
- Explain to the student that they are only copying what's in print on the page. Explain, if the word is capitalized in the book, they are to do the same. Whatever the punctuation mark is, they are to copy it as well.
- Explain the every word must have a pinky finger distance space between every word. Stress this all the time. Often, beginning writing looks like a line of letters instead of a row of words that make sense together.
- Always make sure, although their handwriting will be rather large at first, that it is written neat and correct. With daily practice, their writing will begin to look more like the book.
- Do not rush this skill. I suggest it be done over a period of four to six weeks daily {three to four days a week}.
- Start on a new sheet of paper each day. Always date it. This will allow you and the student to see progress over time.
- Stick with it, it's worth it!

Now that your student has a grasp the art of how to physically write, you will want to transition them from the dotted line paper to wide rule notebook paper. Now we will continue on Phase II for two more weeks.

Introduce them to the margin on the left side of the paper. Explain to them that they should begin their copying as close to the margin as possible. The margin on the right is the closing boundary. Explain that you never write past the right side margin. Explain that if the last word they are contemplating writing is too long for the space left, they must begin a new line with that word. They are now learning to use judgement as they see there are boundaries they cannot cross. Explain that notebook paper has a front and a back side. Explain that we write on the side with the holes to the left of the margin. This is the front of the paper. Remember to date each paper to see their progress.

After the student completes two more weeks of Phase II, they are now ready for Phase III, the mechanics of writing. Explain to the student that writing is one of our most effective ways to communicate. Explain that print on paper has meaning. It gives instruction, direction and enlightens. Over the centuries writing was our most powerful tool or corresponding.

#### Let's Review:

In phase I the student learned how to correctly print each letter. In phase II the student learned how to copy print. They also began to see patterns in writing, such as capitalization at the beginning and punctuation at the end. They began to see sentences were made of groups of words put together to form a message.

In phase III they will learn **the mechanics** of writing. Phases I and II were important because neat legible writing clears the path for organized writing. Assembling your thoughts in your mind and then transferring them to paper is not always easy. Follow the steps as we enter into the mechanics of writing.

#### Phase III -- the Mechanics of Writing

Writing and grammar must work side by side. Phase III is the beginning of instructional writing. As the student progresses in their phonic skills this phase will become easier. Materials needed: Writing Journal and pencil

<u>Step 1</u>

Start out by writing simple words on the dry erase board. Do not put them in order.

Example: has red a cap. Nat

Review all sentences start with capital letters and end with a punctuation mark. These become the student's boundaries. Ask the student to recite the words and then assemble them into a sentence in his/her journal. <u>Nat has a red cap.</u> Have the student to underline the first letter of the first word and underline the punctuation mark at the end of the sentence. Repeat this method with – The fox and the hen ran.

### <u>Step 2</u>

Have the student to write their own sentences. Check them to make sure a capital letter was used at the beginning and a punctuation mark was used at the end.

### <u>Step 3</u>

Dictate a simple sentence and see if the student can write it down. If not give help where it is needed. This is also a note taking skill that will be needed later.

When a student has mastered these 3 stages, it is time to move in closer to Grammar. By the end of 1<sup>st</sup> grade, a student should be ready for the full mechanics of writing.

- 1<sup>st</sup> grade is a general observation. Move when your child is ready.
- A Writing Journal is provided in the optional kit.

# The Mechanics of Writing/Grammar

In this section, you will teach grammar rules along with writing. This study is broken up into five weeks. This is only a suggestion. Feel free to devise your own plan. Have students to use their journals to write the rules, and then write sentences to match or reflect the rules. This will help broaden their thoughts on how to formulate their sentences, as well as stretch their usage of words, while committing the rules to memory. Week 1

Capitalization Rules

- 1. Capitalize a person's name.
- 2. Capitalize initials.
- 3. Capitalize a title with a name.
- 4. Capitalize the pronoun I.
- 5. Capitalize the first word of a sentence.

Punctuation Rules

- 1. Place a period at the end of a telling sentence. Example: Her arm is broken
- 2. Place a period at the end of a command sentence. Example: Pick that book up.
- 3. Place a question mark at the end of a sentence that asks a question. Example: Do you have any money?
- 4. Place an exclamation point after a sentence that shows emotion. Example: We've finally won the game!

# <u>Week 2</u>

# Capitalization Rules

- 6. Capitalize days of the week Sunday, Friday
- 7. Capitalize months of the year March, December
- 8. Capitalize holidays Memorial Day, Thanksgiving
- 9. Capitalize special days Mother's Day, Valentine's Day
- 10. Capitalize the names of streets Redwood Street

# Punctuation Rules

- 5. Place a period after initials. Hope R. Long
- 6. Place a period after an abbreviation for a day of the week. Sun. Sunday Mon. Monday Fri. Friday
- 7. Place a period after the abbreviation for each month. Jan. January Feb. February Aug. August
- 8. Place a period after the abbreviation for titles. Mr. Mister Dr. Doctor

Repeat the journaling skill. Write the rules, and then write sentences to match or reflect the new rules. Continue this through out the week.

# Week 3

# Capitalization Rules

- 11. Capitalize the name of a town or city Chicago
- 12. Capitalize the name of a state Illinois
- 13. Capitalize the name of a country United States
- 14. Capitalize the name of a school or college South Prairie College
- 15. Capitalize the name of a library or hospital Provident Hospital Woodson Library

Punctuation Rules

- Place a period after the abbreviation for some places.
   U.S. United States Mt. mountain
- 10. Use an apostrophe in a contraction to show where a letter or letters have been left out. Example: cannot can't he is he's
- 11. Use an apostrophe to show ownership. Sam's coat
- 12. Place a comma between the day and year in a date. April 1, 2006

Repeat journaling skills.

Week Four

# Capitalization Rules

16. Capitalize the names of a store, a restaurant, or another business. Example: Creative Expressions

- 17. Capitalize the name of a language. English Spanish
- Capitalize the first word of a direct quotation.
   Richard asked, "Can I come too?" (A direct quotation is when someone says something.)
- 19. Capitalize the first word in a line of poetry.
- 20. Capitalize the first word of a greeting in a letter. Dear Lisa

Punctuation Rule

- 13. Place a comma between the name of a day and date. Monday, July 21, 2006
- 14. Place a comma between a town or city and a state. Chicago, Illinois
- 15. Place a comma between a city and a country. Mexico City, Mexico
- 16. In a street address, place a comma after the street and after the city. Example: 11746 South Rush Street, Chicago, IL

Repeat journaling skills. If you have been doing these writing/grammar skills consecutively, the student's sentences should now be much more interesting. The rules should be recited everyday.

### <u>Week Five</u>

Capitalization Rules

- 21. Capitalize the first word of a closing in a letter. Sincerely yours
- 22. Capitalize Roman numerals, the major divisions and the first word in an outline.
  - 1. Mammals
    - A. Whales
    - B. Dolphins
- 23. Capitalize the first word, the last word, and all important words in titles.
- 24. Capitalize the name of a particular building. Museum – Thomas Edison Museum
- 25. Capitalize the name of a particular place. Lake – Liberty Lake; park – Yellowstone National Park

Punctuation Rules

- 17. Place a comma after three or more items in a series. I bought pretzels, chips, and candy for the party.
- 18. Place a comma after the greeting of a friendly letter. Dear Randy,
- 19. Place a comma after a word like yes or no at the beginning of a sentence. Example: No, I don't want any dessert.
- 20. Place a comma when speaking to someone. Tim, when is your birthday?

Repeat journaling skills. We have now completed a five week journey into writing using capitalization and punctuation rules. The student's sentences should now reflect lots of word usage.

Note: There are more punctuation rules that you might want to teach now or come back to later.

# Additional Punctuation Rules

Place a comma in a direct quotation. "I'm too tired to race again," said Alice. Place a colon between the hour and minute(s) in time. 2:15 p.m. Underline the title of a book. The child's mom read, The Indian and the Cupboard to him. Underline the title of a magazine. I like American Journal. Underline the title of a newspaper. Sun-Times Underline the title of a movie or television show. This Old House Place quotation marks around a direct quotation. Matt said, "Let's play basketball." Place auotation marks around the title of a short story. Dad read the story, "The Cat in the Hat," to us. Place quotation marks around the title of a poem.

She likes the poem, "White Rain." Place quotation marks around the title of a song. "You Light Up My Life" was a popular song. Place quotation marks around the title of a chapter. The first chapter of our science book is "Plants."

Your student is now ready for the <u>Writing Prompts Journal</u>. This book allows the student to use all forms and styles in the writing process.

<u>Imaginative</u> – Write creative stories or entertaining essays. <u>Narrative</u> – Write about events or situations, whether real or imaginary <u>Descriptive</u> – Write about a character, setting, event, or object in detail <u>Informative</u> – Write about the process of something or provide information in an orderly, logical way.

Some journal entries have been started for the student. Others are blank as to allow the student to write about the topic given without prompting.

The five week grammar/writing sentences will have prepared him/her for this more independent writing.

• Writing Prompts Journal is provided in the optional kit, or you may choose to purchase one at your local teacher store. This book is primarily for the student to keep building and strengthening their writing while you continue on in the curriculum.

### Grammar/Writing

### Parts of Speech

Nouns – a person, place or thing. Chair

Verbs – words that tell something you do. It is the action of the sentence.

Helping verbs – words that state a fact. They show no action: is, am, was, were, be, being and been

Adjective – words that describe a noun. They tell which one and how many.

Adverb – words that describe a verb, an adjective, or another adverb. They often tell when, where and how.

Preposition – words that point the way to a noun or a pronoun Pronouns – words that are used in place of a noun: I, he, she, we, they, you and it.

Conjunctions – words that join words or groups of words together: and, but and or

Interjections – a word or group of words that show excitement. An exclamation mark (!) is place after the interjection.

Date introduced \_\_\_\_\_\_ Date mastered \_\_\_\_\_

These **action** words are **verbs**. Using strong verbs like the ones in this list will make writing more interesting.

Balance	Cling	Glide	Load	Shake
Bang	Clap	Grab	Meat	Shout
Bark	Click	Groan	Nibble	Shuffle
Веер	Climb	Growl	Paddle	Skip
Beg	Crawl	Haul	Plunge	Slice
Blast	Crush	Heat	Prance	Spread
Blend	Cry	Hide	Pretend	Squeeze
Blink	Dash	Hike	Pull	Stamp
Boil	Drag	Нор	Push	Stroll

Bounce	Dream	Hum	Race	Swing
Broil	Examine	Inspect	Ride	Trickle
Bump	Faint	Joke	Roll	Trot
Cackle	Flip	Juggle	Rub	Wobble
Catch	Float	Jump	Rush	Wander
Chase	Follow	Kick	Rustle	Yank
Chatter	Frighten	Knock	Sail	Zip
Chime	Frown	Laugh	Scoot	Zoom
Chop	Giggle	Launch	Search	

The **descriptive** words on the list below are **adjectives**. Using good adjectives help your reader visualize what you are writing about.

Active	, Fierce	Lovely	Quiet	Spooky
Angry	Flat	Lucky	Real	Strange
Bold	Foolish	Magical	Respectful	Strong
Bored	Gentle	Mighty	Rich	Sweet
Brave	Giant	Mysterious	Rotten	Tart
Bright	Gory	Naughty	Rough	Tender
Calm	Graceful	Nervous	Round	Thrilling
C lean	Haunted	Noisy	Rude	Tidy
Clever	Hilarious	Original	Rusty	Timid
Courageous	Hollow	Outrageous	Sad	True
Cruel	Horrible	Pale	Sharp	Unique
Curious	lcy	Perfect	Shiny	Unusual
Damp	Interesting	Polite	Shy	Useful
Daring	Jolly	Poor	Silly	Vibrant
Deep	Kind	Popular	Simple	Warm
Expensive	Lazy	Positive	Slippery	Wild
Fabulous	Long	Powerful	Smooth	Wise
False	Loony	Proud	Sneaky	Wonderful
Fast	Loud	Quick	Solid	Young

A **prepositional phrase** begins with a **preposition** and ends with a noun or a pronoun. That noun or pronoun is called the **object of the preposition**.

Examples:

After dinner – <u>after</u> is the <u>preposition</u> <u>Dinner</u> is the <u>object of the preposition</u> <u>After dinner</u> is the <u>prepositional phrase</u>

Without you – <u>without</u> is the <u>preposition</u> <u>You</u> is the <u>object of the preposition</u> <u>Without you</u> is the <u>prepositional phrase</u>

Prepositional phrases will **not** be the subject or verb of the sentence. After crossing out all prepositional phrases, find who or what the sentence is about. Underline the subject once. After finding the subject of the sentence, decide what happened or what 'is' in the sentence. Underline the verb twice.

### Example: The <u>man</u> with his son walked toward me. Note: The prepositional phrases are in **bold** print. The verb is

italicized.

# Common Prepositions

AboutBehindAboveBelowAcrossBeneathAfterBesideAgainstBetweenAlongBeyondAroundBut (meaningAtexceptAtopByBeforeConcerning	Into Like	Off On Onto Out Outside Over Past Regarding Since Through Throughout	To Toward Under Underneath Until Up Upon With Within Within
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#### Sensory Words

Use words that describe how things feel, look, smell, taste and sound to make your student's writing especially vivid.

<u>Sensory</u>	Words: Touch
Brittle	lcy
Bumpy	Moist
Cool	Rough
Damp	Sandy
Furry	Silky
Gooey	Slick
Gritty	Slimy
Hairy	Smooth
Heavy	Squishy
Hot	Sticky

# Sensory Words: Smell

Aromatic Clean	Pungent Putrid
Dusty	Rancid
Flowery	Rotten
Fragrant	Sharp
Fruity	Smoky
Musty	Strong
New	Stuffy
Old	Tangy
Pleasant	Woodsy

<u>Sensory</u>	<u>Words: Sight</u>
Blurry	Light
Bright	Misty
Clear	Murky
Cloudy	Opaque
Colorful	Pale
Dark	Plain
Faded	Sparkling
Foggy	Stained
Glossy	Textured
Hazy	Transparent

# Sensory Words: Taste

Bitter	Ripe
Bland	Rotten
Burnt	Salty
Buttery	Savory
Delicious	Smoky
Flavorful	Sour
Fresh	Spicy
Juicy	State
Nutty	Sweet
Peppery	Tart

# Sensory Words: Sound

Bang Hiss Booming Hoarse Buzz Hushed Clatter Loud Cooing Moan Crash Noisy Crying Quiet Faint Shrill Groan Squeal Growl Whine

# Transition Words and Phrases

Transitions connect different thoughts in your writing. Using variety of transition words and phrases makes your writing flow smoothly.

Above Accordingly After all After the fact Afterwards Again Also Although And And then	As so At le At th Beco Befo Besic But	re des	Despite Earlier Even Even though Finally First For example For instance Furthermore Hence	Imm In ac In ar In br In co Inde In fa	ever ediately ddition ny event ief onclusion ed
In short Instead In sum In the meantim In the morning In the past In this manner Last Lastly Later	е	Likewise Meanwhile Moreover Near Nearby Nevertheless Next Nor Not Not	Once more On the other he On the whole Opposite to Second Similarly So Soon Specifically Still	and	Such as Then Therefore Thereupon Thirdly Thus To illustrate Until When Yet

#### Writing a simple paper

There are five main parts to writing a simple paper: Brainstorming, drafting, revising, editing, publishing

Topics – first choose a subject that interest you

Brainstorming – write down all of your ideas about the topic you have chosen. Write the topic in the center of your paper, then branch away creating a web of sub-topics that surround the main topic (see guide sheet).

Drafting – writing without worrying about mechanics or style Revising – adding, removing, rearranging, replacing (ARRR) Publishing – sharing your finished work

### Other writing techniques:

List – make a list of anything related to topic

Free write – students write as fast as possible, continuously, for five minutes Outline – traditional outline format

Colored sticky notes – One idea per note, rearrange thoughts in desired order from the post-it's then write them out.

Concept map – place your topic at the top of your paper, fan out your details like a pyramid

Storyboard – fold your paper in halves until you end up with eight boxes. In each box draw a brief description about your writings, and then write about two lines to explain your story – make sure your illustrations match your writings.

ARRR tree – draw a tree, in the trunk, write your main idea on the branches, give the details

<u>Brainstorming</u> is a tool to help students jot down their ideas of paper. Tell students that their details may change depending on the type of writing they are doing.

Narrative – who, what, where, when, and why

Descriptive - see, smell, hear, taste, and touch

Informative – each sub-topic is the main idea for a new paragraph Persuasive – each sub-topic is an argument for or against the position

<u>Drafting</u> is more structured than brainstorming, but still do not worry about mechanics and style. This is just where you write everything all down. (You organize and correct during the revising stage of the process.)

Tip: When revising, students should skip lines when writing. If more pages are necessary, have students write on separate sheets of paper. Make sure to remind them to write the date and title on each page.

<u>Reflection</u> – set a specific time for the student to reflect on his/her collective writings. This could be a month, end of the unit, or a year. This is the time that the student reviews his/her writings. How well their skills have improved and what still needs improvement. Fill out a reflection writing survey upon completion.

<u>Revising</u> – when revising, students should share their writing with others. This will train them to receive constructive input about their writing. It will also help them to receive useful compliments and suggestions for improvement. Then have student fill out the Revising checklist.

<u>Editing</u> – when editing, the student then begins to focus on mechanics. The student should check for spelling, punctuation, capitalization and grammar errors. Some sentences may need to be moved around. Here is the time to move them or delete them. Then fill out the Editing checklist. <u>Publishing</u> – Every child should be able to share their writings. Publishing is a very important part of the writing process. You don't have to publish everything, but celebrating and sharing the student's accomplishment gives them meaning and purpose. This will further encourage early writing.

Tip: Make sure there are plenty of publishing materials provided (e.g. poster paper, construction paper, markers, writing paper, journals, pens, pencils, computers, if possible, etc.).

Tip: Publishing is not always a newspaper article, try sending copies of writings to friends and family, journaling, making a book, storyboard, or writing a family newsletter.

<u>Rubric</u> – A writing rubric is provided to help you (parent) to evaluate your student's writing. Use this tool to help you determine future lessons and to track your student's achievement.

### Writing a friendly letter

There are five parts to a friendly letter.

Heading, greeting (also known as salutation), signature, body (also known as message), and closing

There are rules in writing friendly letters. Always capitalize the greeting. Example: **D**ear **K**atie

Always punctuation the greeting of a friendly letter with a comma after the name. Example: Dear Katie<u>,</u>

Always write your heading in the top right hand side of your paper.

Make sure you include your address, (name of street must be capitalized. You may abbreviate St. or Ave.), city and state (must be capitalized). Always place a comma between the city and state. When writing postal abbreviations, you <u>do not</u> use a period.

The month must always be capitalized. Always place a comma after the date.

Example:	678 S. Jackson St.
	Chicago, IL 60604

August 7, 2006

You must always indent (move over) the very first line of your body.

Example: Dear Katie,

I really enjoyed myself at your party last week.

Capitalize the first word of the closing of a letter.

Example:

Your friend

Always punctuate the closing of a letter with a comma. Your friend,

Capitalize your signature.

Example:

Your friend, Brittany

• You may abbreviate north, south, east and west – N., S., E., W.

Sample letter:

	678 S. Jackson St.	
Heading <del>&gt;</del>	Chicago, IL 60604	
	August 7, 2006	

Dear Katie, *←* **Greeting** 

I really enjoyed myself at your party last week. (message or body)

**Closing** → Your friend,

Signature → Brittany

• The closing / signature should be lined up with the heading.

Correct the following friendly letters. You may choose to do this assignment on paper or make copies of the worksheet.

12430 beach st chicago il 60604 February 8 2006

dear tracy

Sorry we can't make the 2:00 bus on Sunday.

your friend Renee

2116 w. troop ave Gettysburg PA 17325 june 21 2006

Dear larry

I am looking forward to coming to your game on Saturday. I can't wait.

Yours truly Mike

4937 S. lane dolton il 20904 september 10 2006

dear lisa

Our plane will arrive on Monday. See you then.

your friend Mary

# <u>Envelope</u>

Your name Number and Street A City, State Zip Code	Address	Stamp	
letter	Person to whom you are sending		
	Number and Street Name City, State Zip Code		

Ted Kline	
2265 Morning Glory Lane	Stamp
Brownsburg, Virginia 17325	
Μ	s. Susan Smith
72	21 N. Loomis Ave.

721 N. Loomis Ave. Weston, Florida 85308 Complete your own envelope. You may choose to use an actual envelope or make copies of the worksheet.

← Your return address	
To whom you're sending	

 - -	

# **Reflections on My Writing**

1.	What is your best piece of writing? Why is it your best writing?
2.	Did you enjoy writing?
3.	What do you think you have trouble with when writing?
4.	How has writing improved you as a person?
5.	What do you think were your strengths and weaknesses in your writings?

### **Revising Checklist**

- \_\_\_\_ My topic is an interesting one.
  - $^{-1}$  I hooked the reader with the introduction.
  - $^{ot}$  I provided all the information that the reader needs to know.
  - $\square$  My writing is in an order that makes sense to the reader.
- I deleted any unnecessary words, sentences or paragraphs.
- I replaced details with stronger and clearer expressions.
  - My ending leaves the reader clear.

### **Editing Checklist**

- 📖 I used correct capitalization.
  - I used correct punctuation.
  - \_\_\_\_\_ I used correct grammar.
    - All my sentences are complete thoughts.
- $\square$  I used correct spelling.
  - I am ready to publish my writing.

#### **Plurals**

Singular means one.

Plural means more than one.

Most plurals are made by adding s to the word – toys chairs books Your child may understand this concept better if he/she sees more than one as you explain this to him/her.

Date introduced [	Date mastered
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If a word ends in *sh, ch, s, x, or z* add es to make the plural. Have your child to make the following words plural – box fish church. Make up some of your own words.

Date introduced Date mastered	
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To form the plural of a noun ending in ay, ey, oy, or uy add s. Rule: If a word ends in a vowel + y, you just add <u>s</u>.

To form the plural of a noun ending in a consonant + y, change the <u>y</u> to  $\underline{i}$  and add  $\underline{es}$ .

Date introduced \_\_\_\_\_\_ Date mastered \_\_\_\_\_

To form the plural of some nouns ending in  $\underline{f}$ , change the  $\underline{f}$  to  $\underline{v}$  and add <u>es</u>. Example: knife – knives, calf – calves, loaf -- loaves To form the plural of some nouns ending in  $\underline{f}$ , simply add  $\underline{s}$ . Example:

Date introduced [	Date mastered
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To form the plural of some nouns ending in <u>o</u>, add <u>s</u>.

Example: tornado -- tornados To form the plural of some nouns ending in <u>o</u>, add <u>es</u>. Example: hero – heroes, potato – potatoes, tomato -- tomatoes

Date introduced \_\_\_\_\_\_ Date mastered \_\_\_\_\_

Some nouns do not change to form the plural. Example: deer, moose, trout Some nouns totally change to form the plural. Example: goose – geese, child – children, man – men, woman -- women

Date introduced \_\_\_\_\_\_ Date mastered \_\_\_\_\_

### **Possessives**

Simple s rule for plurals:

When a name ends in s, add –es to make the name plural. Example: One member of the Jones family is a Jones {not a Jone} Two or more members of the Jones family are Joneses {not Jones, not Joness}

Simply s rule for singular possessives:

To form a possessive of any noun, just add ('s). The same rule applies to proper nouns (names) ending in s, and even to names that end in ss.

Example: Lisa Jones's party Darren Moss's invitation

Slightly less simple s rule for plural possessives:

Here's where (s's) go wild. To indicate a possessive of a plural name ending in s, add es and an apostrophe but no final s.

Example: Something belonging to the entire Jones family is the Joneses'.

The party will be at the Joneses' house.

Maybe Darren will bring the Mosses' new puppy.

Note: When teaching about the letter s, you might explain that <u>s</u> is overworked. It has two full time jobs.

We use them on the ends of words to mean "more than one." We team them up with apostrophes to show ownership.

Date introduced \_\_\_\_\_\_ Date mastered \_\_\_\_\_

# Mechanics and Usage

Jane loves to read stories about space. Jane's favorite book is <u>Outer</u> <u>Space</u>. There are many stories in this book. One story is called "A Trip to Mars." Another story is named "The Spaceship." The story Jane likes best is "Living on the Moon."

What is the title of Jane's favorite book? What is under the title? What are the titles of three of the stories in the book? What marks are around the titles of the stories? Which words in each of the titles begin with capital letters?

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Information Bank

The first word and all important words in the title of a book begin with capital letters. The title is underlined.

The first word and all important words in the title of a story begin with capital letters. These marks, "", go around the title.

mastered

### Composition – Paragraph

Seahorses have an interesting way of protecting their babies. When a big fish comes by, the male seahorse opens his mouth and swoosh! The babies are sucked into their father's mouth. He lets them out when the danger is over.

Ask: What do all the sentences tell about? What is the main idea of this group of sentences? Where does the first line begin?

#### Information Bank

A group of sentences that tell about one main idea is called a paragraph. The first line of a paragraph begins a little to the right. There is a space on both sides of a paragraph.

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# Composition – Main Idea

Tree frogs are different from other types of frogs. The can climb and leap trough the treetops, because they have sticky pads on their feet. A caterpillar has many feet, too.

Ask: What is the main idea of the paragraph?
Which sentence doesn't keep to the main idea?
What is that sentence about?
What is a good title for the paragraph?
Which sentence below could go in the paragraph above and why?
a. A daddy longlegs has long legs too.
b. Tree frogs can change color.

Information Bank

All the sentences in a paragraph should tell about the main idea.

A. Copy the paragraph below on your paper. Take out the sentence that does not belong with the others. Then make up a title for the paragraph.

The blue whale is the largest animal on earth. A dinosaur, an elephant and a person could all fit on its back. My back is strong, too. This whale is also the fastest swimmer in the sea.

B. Pick one of the titles below. On your paper, write a paragraph to go with it. Be sure to keep to the main idea. Do not put in any sentences that do not belong.

The Most Beautiful Animal A Very Tiny Animal A Storybook Animal I Like An Animal at the Zoo A Cute Baby Animal

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#### Composition – Questions

The Pilgrims landed at Plymouth, Massachusetts on December 21, 1620. They came to America to seek freedom. Their ship was called <u>The Mayflower</u>.

- 1. Who came to America in 1620?
- 2. Why did they come?
- 3. What was the name of their ship?
- 4. Where did it land?
- 5. When did it arrive?

Is the answer to each question yes or no? What two letters begin the first word in each question? Information Bank

### Question Words

Question words that must get answers: who, what, when, where, and why.

Questions that begin with the words <u>who, what, where</u>, <u>when</u>, and <u>why</u> are called wh-questions. <u>Who</u>, <u>what</u>, <u>when</u>, <u>where</u>, and <u>why</u> are called questioning words.

<u>Wh</u>- questions cannot be answered with yes or no.

Who is on first? When is the game? Why are you late?	What is the score? Where is the pitcher?
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### **Phonics**

Phonics is designed to help students learn, as well as hear, the sounds of the alphabets, -- sounds by vowels, consonant blends, digraphs, sound-letter patterns, developing patterns, -- generate sounds from letters and blend those sounds into words which lead to decoding words for reading.

Along with the usage of Creative Expressions Curriculum, I suggest you use a reliable Phonics system. One that includes ...

- Materials for writing (manuscript writing)
- Tapes that would allow the student to hear clearly the sounds
- Rules that are clearly described
- Books that allow the student to begin to decode sounds that have been mastered, but also reinforce fluency in reading. Theses books should include Reading Comprehension.
- Games that will engage the student, but also challenge the student in the concept being taught.

Tips ... A bright colorful system is more stimulating visually. A system that has music and songs is better for reinforcing and memorizing the sounds. A thorough system – one which includes test and assessments.

You have been provided with a Diagnostic Analysis to begin to study words and word sound patterns.

You have also been provided with phonic rules that are imperative to breaking the reading code, -- sight words and word families.

# **Diagnostic Analysis**

Sound-Le	<u>tter</u>	Pattern	S
_			

Does each letter spell a sound? Say **man.** How many sounds are in **man**?

(3)How many letters spell *man*? (3)Does each letter spell a sound?(Yes)

### Sound-Letter Patterns

Do I always say a word the same way? Say **and** aloud. Say **Jim** and **Tim** fast. Did **and** sound the same both times (No) No matter how I say and, do the letters **a-n-d** spell **and**? (Yes)

ay <b>sat</b> . Sow many sounds are in <b>sat</b> ? ) bow many letters spell <b>sat</b> ? (3)	ame way? Say <b>am</b> aloud. Say <b>I am glad</b> fast. Did <b>am</b> sound the same both imes? (No) No matter how I say <b>am</b> , do the etters <b>a-m</b> spell <b>am</b> ? (Yes)
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## Sound-Letter Patterns

Do other words have the same sound-letter pattern? If I can spell *it*, does it help me spell *sit*, *fit*, *hit*, *kit*, *lit*, *pit*, **quit**, and *bit*? (Yes)

### Sound-Letter Patterns

Do other words have the same sound-letter pattern? If I can spell **at**, does it help me to spell **sat**, **hat**, **fat**, **bat**, **cat**, **mat**, and **pat**? (Yes)

### Sound-Letter Patterns

Is the word an outlaw to a sound-letter pattern? Say *cut*, *but*, and *put*. Does *u* spell the same sound in *put* as in *cut* and *but*? (No) Is *put* an outlaw? (Yes)

### Sound-Letter Patterns

Is the word an outlaw to a sound-letter pattern? Say **seen**, **green**, and **been**. Do **e-e** spell the same sound in **been** as in **seen** and **green**? (No) Is been an outlaw? (Yes)

### Sound-Letter Patterns

Do different letters spell the same sound? What sound begins **queen**, **kept** and **cat**? (k) Which letters spell (k) in **queen**, **kept** and **cat**? (**qu**, **k**, **c**) Do different letters spell (k) in

queen, kept, and cat? (Yes)

## Sound-Letter Patterns

Do different letters spell the same sound? What sound begins **cut** and **kitten**, but ends **neck**? (k) Which letters spell (k) in **cut**, **kitten**, and **neck**? (**c**, **k**, **ck**) Do different letters spell (k) in **cut**, **kitten**, and **neck**? (Yes)

	¬
Sound-Letter Patterns What different letters spell the same sounds in homonyms? Do one and won sound alike? (Yes) Which letter begins won? (w) Which letter ends one? (e) Do different letters spell the same sounds in one and won? (Yes)	Sound-Letter PatternsWhat different letters spell the same sounds in homonyms?Do to and too sound alike?(Yes)Which letter spells u in to? (o) in too? (oo)Do different letters spell u in to and too? (Yes)
Sound-Letter Patterns Do any of the letters no longer spell a sound? Say like. How many sounds are in like? (3) How many letters spell like? (4) Which letters spell sounds in like? (I-i-k) Which letter no longer spells a sound in like? (e)	Sound-Letter Patterns Do any of the letters no longer spell a sound? Say ride. How many sounds are in ride? (3) How many letters spell ride? (4) Which letter spell sounds in ride? (r-i-d) Which letter no longer spells a sound in ride? (e)
Sound-Letter Patterns Do twin letters spell any of the sounds? Look at kitten. Are there twin letters in kitten? (Yes) Which letters are twins? (tt) What sounds do the twins tt spell in kitten? (t)	Sound-Letter Patterns Do twin letters spell any of the sounds? Look at <b>see</b> . Are there twin letters in <b>see</b> ? (Yes) Which letters are twins? ( <b>ee</b> ) What sounds do the twins <b>ee</b> spell in <b>see</b> ? ( <b>e</b> )

# Sound-Letter Patterns

Does a letter team spell any of the sounds? Is there a letter team in **she**? (Yes) Which letters make up the team? (**s-h**) What sound does the letter team spell (**sh**)

## Word-Structure Patterns

Is there a rule used in the spelling of the word? What rule helps me change hat to hats cat to cats bat to bats?

To make these words show more than one: Add **s** 

## **Special Memory Helps**

Does the word have a special set of letters? Does **did** begin and end with the same letter? (Yes) Do the same letters spell **did** both forward and backward? (Yes)

#### **Special Memory Helps**

Does the word have a special set of letters? Does **pop** begin and end with the same letter? (Yes) Do the same letters spell **pop** both forward and backward? (Yes)

## **Special Memory Helps**

Is there a short letter pattern in longer words?

Is the letter pattern **here** in the longer words **where** and **there**? (Yes)

If I can spell *here*, can I spell most of the longer words *where* and *there*? (Yes)

## **Special Memory Helps**

Which hard letters should I say loudly? Which letters are hard to spell in **been**? (**ee**) Say the big letters loudly. Say the small letters softly: **bEEn bEEn bEEn** 

## Some common Phonics rules

A **consonant blend** is two or three consonants sounded together in a word so that each letter is heard.

**CvCe** is the pattern for consonant vowel consonant silent **e** – When there are two vowels in a word and the last letter is the vowel "**e**," the first vowel is long and says its name and the e is usually silent.

Example: skate cake tape rake I made plane ate tire wire kite twice rice stove nose bone home note mule tube huge crude

A Digraph is a vowel combination – Two letters together that stand for one vowel sound. When you see two vowels next to each other that make a long vowel sound, Remember ... when two vowels go walking, the first one does the talking and the second is silent.

Example:	<u>ai</u>	<u>ay</u>	<u>ee</u>	<u>ea</u>	<u>oa</u>	<u>wo</u>	<u>ue</u>
	rain	play	sleep	weak	coat	slow	blue
	brain	gray	keep	read	float	mow	glue
	train	day	meet	east	goat		

<u>oo</u> = <u>short</u>	<u>oo</u> = <u>long</u>
book	school
shook	food

A **Vowel Diphthong** is two vowels that come together and quickly blend into a new sound.

Example:	<u>oi oy</u>	<u>au</u>	<u>aw</u>	<u>ou</u>	<u>ow</u>	ew
p <b>oi</b>	ison b <b>oy</b>	h <b>au</b> l	dr <b>aw</b>	fl <b>ou</b> r	br <b>ow</b> n	st <b>ew</b>
SO	oil Roy	l <b>au</b> ndry	l <b>aw</b> n	h <b>ou</b> r	v <b>ow</b> el	bl <b>ew</b>
f <b>o</b>	il toy	h <b>au</b> nt	sl <b>aw</b>	h <b>ou</b> se	fl <b>ow</b> er	n <b>ew</b>

The Letter **R** can change the sound of a vowel when it follows the vowels **a**, **e**, **I**, **o**, **u**. Here the letter **r** is called the "**Bossy R**" or the **r**-controlled vowels.

Example:	<u>ar</u>	or	<u>er</u>	<u>ir</u>	<u>ur</u>
	st <b>ar</b>	h <b>or</b> n	h <b>er</b>	f <b>ir</b> st	h <b>ur</b> t
	c <b>ar</b> †	c <b>or</b> k	f <b>er</b> n	b <b>ir</b> d	n <b>ur</b> se

The letters **w** and **y** can act as consonants or vowels depending on their positions in a word. The letter "y" makes two different sounds at the end of words. In a one-syllable word, the sound of y is long i. In a two-syllable word the sound of "y" is long e.

Example: [my dry sky = long I] [funny baby pony = long e]

When **y** is close to the middle in a word, it will take on the sound of a short i.

Example: [gym myth Lynn = short i]

The letter **w** is usually a vowel when it follows "a," "e," or "o" in the same syllable.

Example: [saw snow blew]

**C** usually has the soft sound when it is followed by **e**, **I**, or **y**.

**G** usually has the soft sound when it is followed by **e**, **I**, or **y**.

## Sight Words

In the optional kit is a package of sight words. Below is a list of sight words. Go over these words as your child is able.

about all an any are been but by	come could each from has her him how if	into look love make many more new not	once one or other out so some their then	there these they this three time two up use	very way what were when which will word would	write you your
	if	number	then	Use	would	

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# <u>Vowel Play</u>

Fill in the missing vowels.

g_s	p_n	b_ s	l_g	p_t	
g_m	c_p	S _ X	w_g	l_p	
j_g	b_b	t_b	t_p	n_t	
b_x	_ gg	I_g	r_g	m_p	
t_n	n_t	s_ck	n _ st		
f_sh	l_mp	d_ck	l_ck		

## **Word Families**

**Word Families –** Introduce the concept of word families to your student. On the dry erase board write a short list of words from one family. Ask ... "Is there something special about these words, (wait for a reply). Help the student to discover that all of the words end with the same group of letters, and explain that words like these are called a word family.

A list of word families has been provided.

Have students try using single consonants at the beginning of each group of families. Then see if the student can use consonant blends at the beginning of each group of families.

Examples – Word Family <u>ad</u>: dad, sad, mad, fad, bad, had, lad, glad Word Family <u>ag</u>: rag, tag, bag, sag, flag, snag

Do six single consonants and three consonant blends

In the optional kit is a box of word families. Below is a list of word families. Go over these words as your child is able.

Word Family <u>in</u>	Word Family <u>ow</u>	Word Family <u>ump</u>
Word Family <u>it</u>	Word Family <u>ip</u>	Word Family <u>ake</u>
Word Family <u>op</u>	Word Family <u>ap</u>	Word Family <u>ash</u>
Word Family <u>at</u>	Word Family <u>an</u>	Word Family <u>ill</u>

Word Family <u>ock</u>	Word Family <u>unk</u>
Word Family <b>ide</b>	Word Family <b>ank</b>
Word Family <u>ing</u>	Word Family <u>ain</u>
Word Family <u>ink</u>	Word Family <u>ack</u>

Word Family <u>ail</u> Word Family <u>ate</u> Word Family <u>ick</u> Word Family <u>eat</u> Word Family <u>est</u> Word Family <u>ell</u> Word Family <u>ice</u> Word Family <u>ame</u>

Word Family <u>ot</u> Word Family <u>uck</u> Word Family <u>ug</u> Word Family <u>ight</u>

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### **Reading Comprehension**

Reading to your child is a gift you can bestow on him/her daily. While being able to read as early as possible is certainly every parent's goal for their child, reading comprehension goes hand in hand with reading. If a child has not developed this more complex and complete way of understanding what they've read, reading has not been mastered, only decoded. By reading to your child, he or she will begin to process incoming information and bring visual images to what's being heard. As they develop their listening skills, the ability to sequence events or order the facts In their mind will become a more natural process for them.

In teaching reading along with reading comprehension, the parent has the ability to strengthen and train the thinking and listening skills of their child. This can be achieved by challenging the child to practice their auditory skills by way of listening for facts, while stimulating the mind to store information in the short term memory. As information is stored in the short term memory, children can now ask questions that will trigger the mind to retrieve facts heard by recalling events in an ordered system. This will help them move information into long term memory.

Good Reading Comprehension Skills always include the following types of questions.

Note: These are not the actual questions. These are based on what the child has read.

These are the categories of Types of Questions that must be asked. The categories will help guide you through the process of reinforcing comprehension during the reading. In addition, sometimes ask your student to tell you in his / her own words what happened after reading a page.

#### <u>Categories</u>

<u>Story Detail</u>: means it was actually information that was stated in the story.

<u>Picture Clue:</u> means it was information you would have gotten through observing the picture.

<u>Classification</u>: means you are taking a number of things in the story and putting them under the same category.

Inference / Drawing Conclusion: means you are taking an educated guess based on the facts. It is a process of reasoning to come up with a single judgment based on information that was available.

<u>Personal experience</u>: this is when you may relate a particular event in the story to a situation that reflects your own life's experience.

<u>Sequence</u>: This is when you can tell story details in the manner in which they happened.

<u>Vocabulary Expansion</u>: This is when you can add a word that you learned in the story to you own personal vocabulary. (Application)

<u>Predicting:</u> is the ability to determine based on the story what might reasonably happen.

Analyzing: the ability to examine critically, think, observe, and probe.

<u>Context Clue</u>: Based on details, pictures, etc. in the passage or paragraph, without actually being stated, you draw a conclusion to reach the answer to the question.

<u>Analogy</u>: the ability to see the similarity or agreement between one event and another within the story.

Main Idea: Being able to read a paragraph or story and determine the best informational or descriptive sentence that would help you give a sentence summary.

<u>Realism / Fantasy</u>: the ability to know the difference between what is real and can actually happen, versus what cannot ever happen.

<u>Cause / Effect</u>: Knowing that an outcome of one situation may have a result to another.

Interpretation: being able to read a given passage and tell back as close as possible what it means.

<u>Prior Knowledge</u>: to be able to sum up what you already know about subject or story being read.

The Comprehension Questions that you ask should reflect these categories.

Example #1:

If you ask the question: Why did Ray and David think Mrs. Hodges was a good neighbor?

Explanation: When a question is asked what do you think ... you are being asked to draw your own conclusions or to make a prediction.

Example #2:

If you ask the question: What did Ray and David pledge to do? Explanation: When a question is asks, what did they do? You are being asked about what happened in the story. This questions goes under story detail.

Example #3:

If you ask the question: What are four things that Sue used to make her valentines?

Explanation: Since the story obviously showed or told in the story what was used, this question goes under context clue or picture clue.

Example #4:

If you ask the question: What was the problem in the story? Explanation: This question goes under analyzing, since the reader was asked to determine the problem. This requires to reader to think critically.

Summary: When asking questions, or making up your question list, make sure you're asking questions from the right categories.

	Date Introduced	Progress #1	Progress #2
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Progress #3 \_\_\_\_\_ Progress #4 \_\_\_\_\_ Progress #5 \_\_\_\_\_

## **General Reading Comprehension Questions**

Read any book or story with student. Then choose from the following list questions that apply to your readings.

Who is the main character?

Who are some of the other characters in the story?

Where did this story take place?

What is the mood or setting in this story?

What was the plot of this story?

Who was the antagonist in this story?

When \_\_?\_\_\_ happened, how did that make you feel?

If you were \_\_?\_\_\_, how would you have handled the situation differently?

Would you recommend this book to your friends? Explain why or why not.

If you could make-believe, and be a character in this book, who would you be and why?

What type of book or story was this?

Did you enjoy this book?

In the beginning, what caught your attention about \_\_?\_\_?

When did you notice a change?

What would have been your reaction to the news concerning \_\_?\_\_?

Compare this book or story to the last book student read.

Are there similarities between you and \_\_\_\_\_?

What emotions did you experience in reading this book?

Are there any other significant points you want to say about the book?

Do you think the author did a good job with keeping their reader engaged in the story?

Make questions more difficult as they progress in this skill. Reading to your child is just as important as the child being independent and reading to him/her self.

A book history has been provided for you to begin to teach your child the wealth and value behind the covers of a book. Enjoy you life's journey through the path of reading

Punctuation rule: Underline the title of a book

Capitalization rule: Capitalize the first word, the last word and all important words in titles. **Do not capitalize** a, an, the, and, but, or, nor, or prepositions of four or less letters unless they are the first or the last word.

## Parts of a Book

Table of Contents is located at the beginning of a book. It tells chapters and units in a book.

Example: Chapter Chapter Title Page Number

Chapter 1 Words	5
Chapter 2 Frogs	16
Chapter 3 Toads	20

Index is located at the end of a book. An index tells to which page to turn for information about a topic.

Example: bats 27 birds 12 bugs 126

Title page is located in the front of the book. It tells the title, author and illustrator.

Glossary is located of the back of a book. It defines words that pertain to that particular book.

## Types of Books and Categories

Fiction – The characters, events or setting in your book are not real {even if they seem realistic}.

Non-fiction – Books that are true stories about real people and events

Adventure – Stories about interesting places, exciting, journey, explorers or heroes. Adventure books can fiction or non-fiction.

Biography – True stories about the lives and accomplishments of real people.

Mystery – Stories about a crime, an investigation or a puzzling event. Mysteries can be fiction or non-fiction.

Realistic Fiction – Stories about imaginary people and events that are written as if they could actually happen.

Historical Fiction – Stories about imaginary people, based on real historical events.

Fairy Tales and Fantasy – Fictional stories about imaginary characters like talking animals, dragons, or wizards.

### Book vocabulary

<u>Plot</u> – the sequence of events in the story

<u>Characters</u> – the people in a story or drama

<u>Setting</u> – the location where the story takes place

<u>Sequencing</u> – the order in which events happen; putting events in chronological order

Dialogue – conversation between the characters

<u>Foreshadowing</u> – giving an indication or warning of what is to come so that the reader can anticipate the mood or action

<u>Cause</u> – the reason for what happened

Effect – what happened as a result of something else

Fact – something known to have occurred or to be true

<u>Opinion</u> – ones own thoughts or viewpoint that cannot be proven right or wrong

<u>Compare</u> – to show the ways in which similar things are alike or different <u>Contrast</u> – to show the ways in which unlike things are different

<u>Drawing conclusions</u> – reaching a decision or making a judgment based on a body of evidence or group of facts

<u>Inference</u> – an educated guess based on facts or premises. In the inference process, reasoning is used to come up with a single judgment based on the evidence available.

<u>Climax</u> – the turning point, the moment of which the conflict is resolved <u>Protagonist</u> – the leading character or hero of a story Antagonist – an opponent, the adversary of the protagonist

<u>Flashback</u> – an interruption in a story to permit the author to relate an event from the point

<u>Conflict</u> – a struggle. Every story includes at least one of the four main types of conflicts.

<u>Context clues</u> – familiar words that help the reader determine the meaning of other unfamiliar words. There are four important kinds of context clues.

<u>Restatement</u> – A clue provided by including a synonym or definition so that the reader is actually given the meaning of the word.

<u>Comparison</u> – A clue provided by comparing two seemingly

unrelated things so that the meaning of one of them will be clarified. Example – A clue provided by including examples.

<u>Contrast</u> – A clue provided by including a contrast that underscores what the word does not mean.

<u>Mood</u> – the feeling an author wishes to create for the reader. Mood may be created by means of setting, situation, or description separately, or by any combination of these elements.

<u>Conclusion</u> – the solution to the problem or the result of the action that happened in the story

# Reference Books and Information

- Dictionary defines a word and tells you how to use it
- Encyclopedia discusses the subject represented by the word in detail
- Thesaurus groups of words that are related to one another
- Glossary list of words used in a particular specialized field and their definitions
- Almanac a yearly calendar showing the times of events, statistics, holidays, etc.
- Atlas a bound collection of maps
- Telephone book a bound book of numbers that direct a person to a specific number and or location

Start with a plan: How much time are you willing to work with your child daily?

What do you want your child to master this week? What materials will help assist you in this plan? How will you assess your child's progress? Do the public schools have any programs that will assist you?

What supplements are you willing to add? {Tutoring or special programs}

Maintain a goal of your child achieving health, pride and dignity in him/her self.

Remember your objective. Your child rising to his/her full potential; for him/her to be motivated and inspired to embrace learning.

# Word and Sentence Skill building

### Rhyming Words

Rhyming words end in the same sound. Pin win tin sin Cat mat hat sat lid hid dig wig An optional kit is available which has a rhyming chart to further enforce this skill.

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### Compound Words

A compound word is when you have two small words joined together to make one word.

Write these words on the dry erase board.

### Football baseball snowball basketball

<u>Ask</u> the student what he/she notices about each word. <u>Wait</u> for a response. <u>Tell</u> them these are compound words. <u>Ask</u>, "Can you put a small line between the two words." (foot / ball base / ball snow / ball basket / ball) This will allow them to see the two words.

## **<u>Repeat</u>** with ... everything snowman cowboy rainbow.

Have the student put their lines between the two words, and tell you what kind of words they are.

<u>Write</u> these two columns of words on the board. Have the student match column 1 with column 2.

Column 1 – fire, rail, after, under, tooth, grand, air Column 2 – mother, road, stand, ache, man, noon, plane

Have the student to unscramble the compound words. Then use a line to divide the two words.

Lookflower	weekpaper	undercycle	dragonball	blackcut
sunout	newsend	motorground	footfly	hairboard

Wrap-up

Ask: "What did we learn today about compound words?"

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## Sentence Diagramming

Say. "Today we are going to learn how to write complete descriptive sentences. First there are a few steps we need to know. Then we write."

A sentence is a group of words containing a subject and a verb that states or asks, etc. something.

The subject is who or what the sentence is about. The verb is what the subject is doing.

Some sentences contain adjectives, words that describe a noun. They tell which one and how many. The abbreviation for adjective is adj.

Some sentences contain a pronoun in place of a noun. (I, he, she, we, they and it) The abbreviation for pronoun is pro.

Some sentences con a preposition or "prepositional phrase." (Remember: a prepositional phrase starts with a preposition and ends with a noun or pronoun.)

Write the following sentences on a dry erase board.

- 1. Mark set the books up on the shelf.
- 2. Susan ran the 2<sup>nd</sup> race well.
- 3. Tammy read two books last night.

Ask, "In sentence number 1, who is the sentence about?" [Wait for a reply.] The sentence is about Mark. Therefore Mark is the subject. Tell the student to **underline** the subject once.

Ask, "What did Mark do?" [Wait for a reply.] Mark set. Therefore set is the verb. Tell the student to **underline** the verb twice.

Repeat with other sentences.

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Write down the following sentences on the dry erase board.

- 1. Karen lives in that big house.
- 2. He watched the birds fly.
- 3. She crawled around the small table.

Ask, "In sentence number 1, who is the sentence about?" [Wait for a reply] The sentence is about Karen. Therefore, the subject of the sentence is Karen.

Tell the student to **underline** the subject once.

Ask: "What did Karen do?" [Wait for a reply] Karen lives. Therefore watch is the verb. Tell\_the student to **underline** the verb twice.

Ask: "What word describes Karen's house?" [Wait for a reply] big. Therefore, big is your adjective. Tell the student to label the adjective with the abbreviated letters **adj.** Right over the word.

In sentence number two, Ask, "What do you notice that's different in this sentence. [Wait for a reply] Explain, "In this sentence the *subject* is he. He is a *pronoun*; it takes the place of a noun. Therefore you **underline** the pronoun once as you would the subject."

Remember: the pronoun took the place of a noun.

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Write down the following three sentences on the dry erase board.

- 1. Sean handed the large box to the children.
- 2. Rhoda picked up the trash.
- 3. She walked all the way to the school.

Ask: "In sentence number 1, who is the sentence about? [Wait for a reply] **Underline** the subject once. Ask: What did Sean do? [Wait for a reply] **Underline** the verb twice. Ask: What word describes a noun? [Wait for a reply] Label the adjective **adj**.

Ask: Student to look at their prepositional phrase words and find the preposition in this sentence. [Allow time for this] **To** is the preposition. Explain: A prepositional phrase is a group of words that begin with a preposition, (in this case to) and goes all the way to the noun or pronoun. Explain: A **noun** is a person, place, or thing. Ask: Which word that comes after to is a person, place, or thing. [Wait for a reply] **Children** is the **noun**. Your prepositional phrase is **to the children**. Lightly put a line through the whole phrase.

Repeat for other two sentences.

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Let's Review

We **underline** the subject **once**. We **underline** the verb **twice**. We **label** our adjectives **adj**. We **underline** the pronoun in place of a noun once. We **put a line** through our prepositional phrases which start at the preposition and end with a noun or a pronoun.

A <u>noun</u> is a person, place or thing.

Some sentences have helping verbs. Remember helping verbs state a fact. They show no action. Write the following list of helping verbs on the board. Have students to *memorize* the list.

were	do has does have did had	are was	•	may must might		shall can will
------	--------------------------------	------------	---	----------------------	--	----------------------

Some sentences will have a verb phrase. A verb phrase is when two or more words make up a verb. The last word in a verb phrase is called the main verb, other words are called helping (auxillary) verbs.

<u>Verb Phrase</u>
should go
has been given
will be leaving

<u>Helping</u> <u>verb(s)</u> should has been will be <u>Main verb</u> go given leaving

Explain: When there is a verb phrase, you **underline** it **twice**, just as you did your verb.

Some sentences have adverbs. An adverb describes a verb, an adjective, or another adverb. They often tell when, where, and how. The word is <u>not</u> is never a verb. DO NOT UNDERLINE NOT as part of the verb phrase. Whenever the word <u>not</u> or <u>n't</u> (a contraction) put a box around the word.

Special Note: The **subject** and **verb** will never be part of the **prepositional phrase**. To avoid making a mistake, always put a line through your prepositional phrase first. Then go back and ask yourself who the sentence is about and what is the subject is doing.

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Write the following sentences on the board.

- 1. George is walking up the grassy hill.
- 2. Jackson should have gone in the car.
- 3. We quickly picked the apples on the farm.

Ask: In sentence number 1, what is the prepositional phrase? [Wait for a reply] up the grassy hill, should have a line through it. Ask: Now, who is the sentence about; what is the subject doing? Explain: There is a helping verb in this sentence. Therefore you will **underline** your verb phrase **twice** (is walking).

Repeat with sentence number 2.

In number 3, Ask: Is there a prepositional phrase? [Wait for a reply] In the car, should have a line through it. Now, who is the subject, [Wait for a reply], we is the **pronoun** that takes the place of the noun. We should **underline** it once. What did the subject do? [Wait for a reply] picked, should be underlined twice.

Ask: Do you notice another very important word that explains how the apples were picked? [Wait for reply] The word quickly describes how the apples were picked. This is an adverb. Label the adverb with the abbreviated letters adv.

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Write the following sentences on the board. Have students to diagram them. Review all the rules first.

- 1. The pump is behind the barn.
- 2. We went to the beach.
- 3. Mary sits behind you in science class.
- 4. Some boys crawled under the car.
- 5. Janet lives across the street from me.
- 6. The car did not need any gas.
- 7. May I rest here for ten minutes?
- 8. In July school is not in session.
- 9. Before the parade everyone walked toward the town square.
- 10. They have taken my idea from the book.

## Sentence Types

A **declarative** sentence <u>makes a statement</u>. It ends with a **period**. Example: This candy bar melted.

An *interrogative* sentence <u>asks a question</u>. It ends with a *question mark*. Example: Has the candy bar melted?

An *imperative* sentence <u>gives a command</u>. It ends with a *period*. Example: Give me that candy bar.

An **exclamatory** sentence <u>shows emotion</u>. It ends with an **exclamation point**.

Example: Yuck! This candy bar is melted!

Special note: In an imperative sentence the pronoun "You" is always the subject, if there is no noun. In an imperative sentence you must put the word "you" at the beginning of the sentence, and then underline it as your pronoun, taking the place of a noun.

Write the following sentences on the board. Fill in the missing sentence type.

- 1. May I read you a poem?
- 2. We passed the test! \_\_\_\_\_
- 3. Mark got a speeding ticket.
- 4. Don't touch that please.
- 5. Her arm was broken in two places. \_\_\_\_\_
- 6. Pass the mustard.

Note: Numbers 4 and 6 are imperative sentences. They give a command. Who is being given the command? You

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### Using Words Correctly

#### Using was and were

Use <u>was</u> to tell about one person or thing. Use <u>were</u> to tell about more than one person or thing. Always use <u>were</u> with the word <u>you</u>.

Examples: Dinner <u>was</u> good.	She <u>was</u> busy.
You <u>were</u> hungry.	The dishes <u>were</u> washed.

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Using am, is and are

Always use <u>am</u> with the word <u>I</u>. Use <u>is</u> to tell about one person or thing. Use <u>are</u> to tell about more than one person or thing. Always use <u>are</u> with the word <u>you</u>.

Examples: I <u>am</u> running.	You <u>are</u> playing.
Spring <u>is c</u> oming.	Birds <u>are</u> singing.

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Using does, do and did

Use <u>does</u> to tell about something that is happening now or all the time. Use <u>does</u> to tell about one person or thing. Never use <u>does</u> with the words <u>you</u> or <u>1</u>. Examples: He <u>does</u> good work. The dog <u>does</u> tricks.

Use <u>do</u> to tell about something that is happening no or all the time. Use <u>do</u> to tell about more than one person or thing. Always use <u>do</u> with the words <u>you</u> or <u>I</u>.

Examples: They <u>do</u> good work.	You <u>do</u> good work.
l <u>do</u> good work.	The dogs <u>do</u> tricks.

Use <u>did</u> to tell about something that happened before now. Use <u>did</u> to tell about one person and more than one person or thing.

Examples: She <u>did</u> her work. They <u>did</u> their work, too.

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Using these and those

Use <u>these</u> and <u>those</u> with words that name more than one thing.

Examples: <u>these</u> trees <u>those</u> cars

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## <u>Using a, an, this, and that</u>

Use <u>a</u>, <u>an</u>, <u>this</u>, and <u>that</u> with words that name only one thing. Examples: <u>this</u> boat <u>that</u> house <u>a</u> ball

Use <u>an</u> before a word that begins with a vowel sound. Examples: <u>an</u> elephant <u>an</u> hour

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#### Using has, have, and had

Use <u>has</u> to tell about something that is happening now. Use <u>has</u> to tell about one person or thing. Never use <u>has</u> with the words <u>you</u> and <u>I</u>.

Examples: Joe <u>has</u> a cold. This cup <u>has</u> a crack.

Use <u>have</u> to tell about something that is happening now. Use <u>have</u> to tell about more than one person or thing. Always use <u>have</u> with the words <u>you</u> and <u>l</u>.

Examples: The children <u>have</u> a pet. The dogs <u>have</u> fleas. I <u>have</u> a dog. You <u>have</u> a cat.

Use <u>had</u> to tell about something that happened before now. Use <u>had</u> to tell about one and more than one person or thing.

Examples: He <u>had</u> fun. We all <u>had</u> fun last night.

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# **Contractions**

To contract means to make smaller. The short form of some words is made from two words. The words are put together. One or more letters are dropped. An apostrophe ( ' ) is used in place of the missing letters.

Cannot  $\rightarrow$  can<u>not</u>  $\rightarrow$  can\_t  $\rightarrow$  can't he is  $\rightarrow$  he is  $\rightarrow$  he\_s  $\rightarrow$  he's Are not  $\rightarrow$  are <u>not</u>  $\rightarrow$  aren\_t  $\rightarrow$  aren't who is  $\rightarrow$  who is  $\rightarrow$  who \_s  $\rightarrow$ who's Were not  $\rightarrow$ were <u>not</u>  $\rightarrow$  weren\_t  $\rightarrow$ weren't you will  $\rightarrow$ you <u>wi</u>ll  $\rightarrow$ you\_ll  $\rightarrow$ you'll Could not  $\rightarrow$  could <u>not</u>  $\rightarrow$  couldn\_t  $\rightarrow$ where is  $\rightarrow$  where is  $\rightarrow$  where s  $\rightarrow$ Couldn't where's

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# Vocabulary

To the Instructor: Vocabulary is a means of expanding language. Every student should be introduced to new and different words that are discussed in class.

I strongly suggest that you provide them with one new word per week. By the end of the school year, your student will have increased their vocabulary and learned at least 36 new words. This is also a great tool for standardized testing.

I have provided a sample vocabulary sheet that you may choose to use to get started.

Date Introduced \_\_\_\_\_ Progress \_\_\_\_\_ Mastered \_\_\_\_\_

### Sequencing

Example: Put a number in front of the first, second, third and fourth sentences so the story makes sense.

\_\_\_\_Finally, on Saturday, I seam all the way across the pool.

\_\_\_\_My swimming lessons began on Monday.

\_\_\_\_By Thursday, I knew that I would not drown.

\_\_\_\_I wasn't sure by Wednesday that I would like swimming lessons.

In the optional kit is a set of Rummy Cards which deal with sequencing events. Do this on a regular basis with your child. On one side there are the pictures of the story and on the other side there's the sentences that he/she should be able to put in order to tell you back the story.

Date introduced	Date mastered

# **Dictionary Skills**

# **Dictionary Study**

The <u>Kingfisher First Dictionary</u> is full of information. This dictionary will empower your child with a wealth of vocabulary if used as a part of his/her curriculum daily. This will broaden his/her language and reading skills. There are key features in this dictionary that combine to make it an indispensable learning tool. Listed below are pages that should be studied. I have already divided up the skills by weeks, topics and pages for you. If you do 1 set of homonyms a week, 2 picture description pages a week, and 1 word origin a week, and 3 wordplays, you will complete the study in 7 to 9 weeks. You can follow this plan or devise one of your own that may better suited for you. Make sure you go over all homonym definitions.

Homonyms are words that sound the same, but have different meanings and spellings.

Week 1: aloud — allowed p9, bear – bare p15, dear – deer p44, eye – I p56, flour – flower p63 <u>Picture Description pages</u>: Aircraft p8, Animals p11 <u>Word origin</u>: alphabet p9; <u>Word play</u>: p7,17, 24

Week 2: hear and here p74, hole and whole p76, hour and our p79, knew and new p85, knight and night p86 <u>Picture Description pages</u>: Birds p20; Boats p22 <u>Word origin</u>: Astronaut p13; <u>Wordplay:</u> p32, 39, 49

Week 3: knot and not p86, meet and meat p96, nose and knows p105, pair and pare p110 <u>Picture Description pages</u>: Cars p29, Clothes p34 <u>Word origin</u>: Grapefruit p71; <u>Wordplay</u>: p50,54, 61 Week 4: peace and piece p113, plane and plain p116, write and right p139, road and rode p130, sea and see p135 <u>Picture Description pages</u>: Colors p37, Dinosaurs p46 <u>Word origin</u>: Hippopotamus p76; <u>Wordplay</u>: p71, 76, 78

Week 5: sew and so p137, son and sun p144, stair and stare p147, sum and some p152, tail and tale p154 <u>Picture Description pages</u>: Flowers p62, Fruit p67 <u>Word origin</u>: Rhinoceros p128, <u>Wordplay</u>: p83, 92, 86

Week 6: threw and through p156, war and wore p166, way and weigh p167, weak and week p167, wear and where p167 <u>Picture Description pages</u>: Games p69, The Human Body p78 <u>Word origin</u>: Spider p146; <u>Wordplay</u>: p99,105, 117

Week 7: which and witch p170, whole and hole p169, won and one p170, wood and would p170 <u>Picture Description pages</u>: Musical Instruments p100, Opposites p108 <u>Wordplay</u>: p128, 132, 146

Week 8: <u>Picture Description pages</u>: Planets p118, Shapes p138 <u>Wordplay</u>: p153, 163, 172

Week 9: <u>Picture Description pages</u>: Vegetables p165, More about words p174

(Answers for wordplay on page 180)

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<u>Alphabetical Order</u>

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz Alphabetical order is a skill that is mandatory to learn. Alphabetizing is the first form of cracking the code to beginning research. In order to look up word in the dictionary, thesaurus, phone book,

encyclopedia, etc. you must know alphabetical to use any one of these books.

There is an art to learning alphabetical order. You s tart out simply and build on to the skill.

## <u>Phase I</u>

Always use an alphabet chart while on phase I.

Ask ... "Student what letter is before Oo." Give time for them to answer. Guide them through the alphabet chart. When the right answer is given, repeat.

"What letter is after Dd." Give time for them to answer. Repeat this with other letter until they can actually see the alphabet chart in their mind.

On a dry erase board, write – Aa, Bb, Cc, <u>,</u>, <u>,</u>, Gg, Hh, li – Then ask what letters are between Cc and Gg. Give time for them to answer. If need be guide them through the chart. Repeat with – Tt, Uu, Vv, <u>,</u>, <u>,</u>, Zz – Continue this until the student is comfortable.

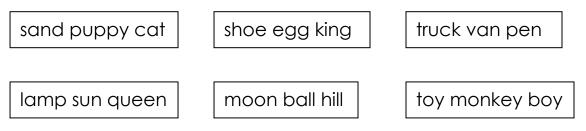
Date introduced \_\_\_\_\_\_ Date mastered \_\_\_\_\_

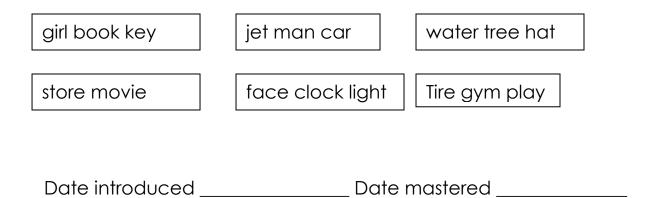
## <u>Phase II</u>

On the dry erase board write the words - dog apple fan.

Explain that alphabetizing is according to the first letter of a word. Example **ape ball cat** – the **a** in ape comes before the **b** in ball, and the **b** in ball comes before the **c** in cat. Therefore ape is  $1^{st}$ , ball is  $2^{nd}$ , and cat is  $3^{rd}$  and last.

I have provided you with more groups of words to continue on phase II until mastered. Say the words for the student so that they can hear the sound also. This should be a writing exercise. They can write them in the correct order.





<u>Phase III</u>

Explain that if all the first letters are the same, then the second letter becomes the deciding factor as to which word is first, second, or third. Write ... **dog dump dad** 

The second letters are **a**, **o**, and **u**. Ask ... "which of these letters comes first in the alphabets." Explain ... "the **a** in dad comes before the **o** in dog, the **o** in dog comes before the **u** in dump. Therefore dad is 1<sup>st</sup>, dog is 2<sup>nd</sup>, and dump is 3<sup>rd</sup>.

Repeat this with your provided word list.



As student begin to do this step well, Explain ... "If the first and second letters are the same then the third letter becomes the deciding factor.

# Write ... hop home hook

The first and second letters are the same, so we look at the third letter in each word. Explain ... "The **m** in home comes before the **o** in hook, the **o** in hook comes before the **p** in hop. Therefore, home is 1<sup>st</sup>, hook is 2<sup>nd</sup>, and hop is 3<sup>rd</sup>.

### Repeat this with your provided word list.

seed sea send

tip title tide

hose house hope

yard yawn

door doctor doll

blow black blue

Once you have reached this point, alphabetical order has been mastered. For more advanced and challenging alphabetical order, have the student do the following word lists. Several have been provided for you.

Some solid soft sail salve	probe prize print produce problem	eart ear east East ease	er	hip hill hike hire high		calr cale	endar culator	dump dog dip damp desk
tramp track trade truck trace	approve approach apply appose approval	١	sper spee spee spin spine	ed ech	quad quie quar quar	t t en	rose real right really rear	top tool took tooth toot
stalk state stall stair stack	tape tank tap tan tang							
Date intro	oduced			Do	ate m	aster	red	

# <u>Guidewords</u>

At the top of every dictionary page are two words. For a word to be on that dictionary page, the spelling has to be between these two words. The first word tells you the first word on the page. The second word tells you the last word on the page.

Note: Always find your alphabetical range first.

Example – Dictionary page

Ball is the first word on the page.

ball	box
	box

Box is the last word on the page.

Rain is the first word on the page.

Rain	red
Rob would not b	
because rob co	mes after red.
Could the word	<b>ram</b> be found
on this dictionar	v page?
	red

Red is the last word on the page.

Explanation ... "Since both **rain** and **red** begin with the letter <u>r</u>, we will concentrate on the second letters of the words, **a** and **e** are the second letters. If we were to look at our alphabet chart (Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo), we would see that the **o** in **rob**, which is the second letter is after the **a** in **rain**, and after the **e** in **red**. Therefore, the word rob would be found some pages after this dictionary page." The word ram, however, would be found on this page because on this dictionary page we can see that the letters **r-a-m** are between **rai** and **red**. Gate is the first word on the page.

gate	gum
Will the word on the page words gate a	<b>glue</b> be found with the guide nd gum? gum

Gum is the last word on the page.

Explanation ... "We see that **gate** and **gum** begin with the letter **g**. This means we will concentrate on the second letters in the words, which are **a** and **u**. If we imagine the alphabet chart, we would know that the **a** in **gate** comes before the **u** in **gum**. {Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz} Therefore, the word **glue** would be found on this page, because the **l** in **glue** is between **a** and **u**."

Tip is the first word on the page.

Тір	tulip
Will the word on the page guide words t	<b>turn</b> be found with the ip and tulip? tulip

Tulip is the last word on the page.

Explanation ... "We see that **tip** and **tulip** begin with the letter <u>t</u>. This means we will concentrate on the second letters in the words, which are **I** and **u**.

We see in the word **turn**, that there is also a **tu** at the beginning of the word. In this case we need to look at the third letter in the two words. **Tulip** has a <u>I</u> as the third letter and **turn** has a <u>r</u> as its third letter. Since <u>r</u> comes after <u>I</u>, **turn** would not be found on this dictionary page, turn would come after this page." Eat is the first word on the page.

eat elf
East would not be found
on this page because east
comes before eat.
elf

Elf is the last word on the page.

Explanation ... "East would not be found on this page because **eat**, the first word on the page begins with <u>**ea**</u>, the same as in **east**. However, the third letters which are <u>**s**</u> in **east**, and <u>**t**</u> in **eat** are not the same. Since <u>**s**</u> comes before <u>**t**</u>, the word **east** would not be on this dictionary page; it would come before this page."

Flag is the first word on the page.

flag	flush
Would the wo	rd <b>flute</b> be
found on the	page with the
guide words f	lag and flush?
	flush

Flush is the last word on the page.

Explanation ... "We see that **flag** and **flush** begin with the letters **fl**. This means we concentrate on the third letters in the words, which are **a** and **u**. We see that the word **flute** and **flush** both have the same first 3 letters **flu**. This means we must now concentrate on the fourth letter in the words, which are <u>t</u> in flute and <u>s</u> in flush. Since **s** comes **t**, flute would not be found on this dictionary page. It would come after this page."

Here are more guide words to give the student additional practice.

Choose the word that would be on a page with these guide words: vest / wash

A. vine B. tank C. window

Choose the word that would be on a page with these guide words: goat / house

A. game B. huge C. great

Choose the word that would be on a page with these guide words: apple / base

A. bank B. adult C. battle

Choose the word that would be on a page with these guide words: final / grin

A. energy B. first C. figure Choose the word that would be on a page with these guide words: pickle / pumpkin

A. picnic B. push C. pebble

Choose the word that would be on a page with these guide words: trend / troop

A. try B. trip C. trout

Choose the word that would be on a page with these guide words: vacation / wagon

A. violet B. vacant C. water

Choose the word that would be on a page with these guide words: rain / sail

A. rail B. raise C. safe

Choose the word that would be on a page with these guide words: leaf / lemon

A. left B. ledge C. lend

Choose the word that would be on a page with these guide words: teeth / test

A. tent B. team C. term

Choose the word that would be on a page with these guide words: doorknob / dull

A. dress B. dumpling C. dozen

Choose the word that would be on a page with these guide words: flavor / frighten

A. forget B. frail C. fasten

Which word comes before the word "danger" in the dictionary?

A. criminal B. dazzle C. grumble

Which word comes before the word "question" in the dictionary?

A. patient B. remote C. tremble

Which word comes before the word "special" in the dictionary?

A. speed B. speak C. spectacle

Which word comes before the word "holiday" in the dictionary?

A. hospital	B. horse	C. hobby
Which word co	omes after the w	ord "president" in the dictionary?
A. narrow	B. recent	C. bright
Which word co	omes after the w	ord "lazy" in the dictionary?
A. bridge	B. kettle	C. morning
Which word comes after the word "forest" in the dictionary?		
A. forget	B. forbid	C. force
Which word comes after the word "apricot" in the dictionary?		
A. apology	B. applause	C. artist

# **Definitions**

• Choose the sentence that goes with definition number 1

Fair (adj) – 1. light in color 2. balanced, not favoring one more than another 3. average, not too good or too bad

- B. The young girl covered her *fair* skin with sunscreen.
- C. After yesterday's rain, today's weather was fair.
- D. The contest judges tried their best to make a *fair* ruling.

• Choose the sentence that goes with definition number 1

Note (noun) – 1. a short letter or message 2. a symbol that represents a musical tone 3. a sign or hint

- B. The teacher had a **note** of sadness in her voice, as she told the class goodbye.
- C. John wrote a *note* to his best friend yesterday.
- D. The musicians ended on the same **note**.
- Choose the sentence that goes with definition number 1

Last (verb) 1. to continue for a period of time (adj) 2. coming at the end 3. the least likely

- B. Carolyn was the *last* person I expected to see at the party.
- C. We enjoyed camp so much that we wished it would **last** another week.
- Choose the sentence that goes with definition number 2

Part (noun) – a role or character in a play or movie 2. a portion or piece of a whole 3. a divided line along the scalp as hair falls to one side or another

- A. Christina played the **part** of Cinderella in our play last June.
- B. Megan put a straight **part** in her hair before combing it out.

C. Only **part** of the class went on the school trip.

• Choose the sentence that goes with definition number 2

Bright (adj) – 1. giving off much light 2. clever or smart

- A. The sun was so **bright** that I had to look away.
- B. Sharon gave a very **bright** answer to the question.
- C. Don't turn on that **bright** light!

• Which meaning of the word **bat** is being used in this sentence:

The **bat** flew out from under the bridge.

Bat (noun) – 1. a wooden stick or club used to hit a ball in the game of baseball 2. a flying mammal (verb) 3. to hit

A. Definition 1 B. Definition 2 C. Definition 3

• Which meaning of the word "seal" is being used in this sentence:

Be sure to **seal** the envelopes before mailing the letters.

Seal (verb) – 1. to close tightly, to fasten (noun) 2. a mammal who has flippers 3. a design that is imprinted or stamped on wax or other soft material

A. Definition 1 B. Definition 2 C. Definition 3

• Which meaning of the word "train" is being used in this sentence:

Olivia hired Mr. Gibbs to **train** her for the Olympics.

Train (noun) 1. a group of connected railroad cars 2. a long part of a dress that trails behind the person wearing it (verb) 3. to coach or to teach an art or a skill

A. Definition 1 B. Definition 2 C. Definition 3 • Which meaning of the word "dress" is being used in this sentence:

Mom told Jake to hurry and **dress** for school.

Dress (noun) – 1. a garment worn by girls or women (verb) 2. to put on clothes 3. to get something ready for cooking

A. Definition 1 B. Definition 2 C. Definition 3

• Which meaning of the word "tip" is being used in this sentence:

Be careful not to **tip** the vase over.

Tip (noun) – 1. the end or point of something 2. a helpful hint or suggestion (verb) 3. to knock over

A. Definition 1 B. Definition 2 C. Definition 3

an "more than one."

We team them up with apostrophes to show ownership.

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#### Word Usage

Challenge your student's mind, by seeing how sharp their vocabulary/definition skills are. Use both clues to come up with one word that has meaning for both clues. Watch out. This is tricky!

Double Play on Words

Opposite of right ... or already gone To press clothes ... or a kind of metal A round toy ... or a fancy formal dance A month of the year ... or to be allowed An insect ... or to travel by plane To throw ... or resin from a tree A timepiece ... or to look at A dot ... or to see To tease ... or a young goat A stage drama ... or something done for fun A carriage ... or a person who trains athletes Thirty-six inches ... or the ground around a house

# Prefixes, Suffixes and Root Words

A <u>root word</u> is any word without an important part added at the beginning or a part added at the end.

Some words are made by adding an ending called a <u>suffix</u>. Example: fly<u>ing</u> ask<u>ing</u>

A <u>prefix</u> is placed in front of a root word. A prefix has meaning. Example: un = means not <u>un</u>happy means not happy <u>un</u>safe means not safe

A root is the main part of a word. Sometimes it is a word by itself. Sometimes it cannot stand alone as a word. Example: scribble scrib = root ble = suffix Sometimes a root word can have a prefix and a suffix. Example: re – turn – ing This word means to go back. Prefix root suffix Some prefix meanings: sub means under tri means three re means backwards or again un, il, and non mean not in means not pre means before dis means not trans means to make a copy mis means to manage incorrectly Some suffix meanings: ment means state of being er means one who ful means full of less means without ly means in what matter ship means the skill of ess means a female Some root meanings: aud, audio mean to hear man means by hand miss means to send phon means sound port means to carry tele means far Answer the following questions on paper. The root of the word parted is ? The root of the word remaking is Ś\_ The root of the word dancing is <u>?</u> The root of the word contract is <u>?</u> The root of the word undoing is ? The root of the word jumping is ? Fill in the sentences. A tricycle has ? wheels. A subway is a train that is \_\_\_\_\_ ground. Date introduced \_\_\_\_\_ Date mastered \_\_\_\_\_

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Match the words with the correct sentence meaning.

audiotape audition manuscript manipulate missile

- 1. A short performance to test a singer, actor or dancer
- 2. An object that is launched
- 3. To work with the hands
- 4. Document written by hand
- 5. A tape recording of sound

earphone telegram export phonics telescope import

- 1. Something carried into a country
- 2. An instrument to see things in the distance
- 3. Learning letters and sounds
- 4. Message sent far by telegraph over wires
- 5. Worn in the ear to help you hear sound

saxophone telecast report deport

- 1. Means to force a person to leave the country
- 2. Means a program on television
- 3. Means a musical instrument that produces sounds
- 4. Means to describe or tell something

Use index cards to write the following root words and their meanings. Use them as flash cards. There are 27 words altogether; have student to write each word, and a sentence using the word, on an index card to make sure that the understanding of the word is clear. There should be 27 index cards.

## Root words and meaning

photos means light; graph means to write or draw  $\rightarrow$  photograph means a picture drawn by light tele means far away; photo means light  $\rightarrow$  telephoto means light from far away photo means light; metron means measure  $\rightarrow$  photometer is a device which measures light photo means light; philia means love  $\rightarrow$  photophilia means love of light photo means light; phobos means fear  $\rightarrow$  photophobia means a fear or dislike of light photo means light; syn means together; thesis means putting  $\rightarrow$ photosynthesis is a process of putting things together by using light graph means to write or draw; photo means light  $\rightarrow$  photograph is a picture drawn by light phono means sound; graph means to write or draw  $\rightarrow$  phonograph is a machine for writing (or recording) sound tele means far away; graph means to write or draw  $\rightarrow$  telegraph is writing from far away lithos means stone; graph means to write or draw  $\rightarrow$  lithograph is a drawing made on a stone autos means self; graph means to write or draw  $\rightarrow$  autograph means to write one's own name tele means far away; video means to see  $\rightarrow$  television means to see distant thinas tele means far away; phono means sound  $\rightarrow$  telephone means to hear sound from far away

- tele means far away; skopeo means to look at → telescope is a devise for looking at distant things
- tele means far away; pathos means feeling → telepathic means knowing how someone far away is feeling
- metron means to measure; geo means earth  $\rightarrow$  geometry means measurement of the earth
- opsis means sight; meter means to measure  $\rightarrow$  optometry means to measure eyesight
- sym means same, equal; meter means to measure  $\rightarrow$  symmetry means measuring the same
- baros means weight, pressure; meter means to measure → barometer is a devise to measure air pressure
- thermos means heat; meter means to measure  $\rightarrow$  thermometer measures heat
- dia means through, across; meter means to measure  $\rightarrow$  diameter measures the distance across
- centum means hundred; meter means to measure  $\rightarrow$  centimeter measures one hundredth of a meter
- pro means for, before, forward, in place of; fateor means to admit, reveal  $\rightarrow$  profess means to admit that one is an expert  $\rightarrow$ 
  - professional is one who claims to be an expert  $\rightarrow$  problem is anything thrown forward to be worked
  - on
- logos means word study; pro means before → prologue words before beginning a play or a book
- clamo means to shout; pro means before → proclaim is to announce, cry out or publish

Write these words on the easel board. Say, "I will read a sentence and I would like you to add a suffix to one of the words that will match the sentence." Student should then add the suffix to the word in the word box that would fill in the blank.

Quick paint strange poor govern

- 1. The rabbit ran \_\_\_\_\_.
- 2. The \_\_\_\_\_\_ uses many brushes and paints in his job.
- 3. He looked at me \_\_\_\_\_.
- 4. The sweeping of the floor was \_\_\_\_\_ done.
- 5. Laws and rules are made by the \_\_\_\_\_.

Choose the correct word from the word box.

inappropriate disapprove disappear nonliving

- 1. Which word means to stop being visible?
- 2. Which word means not living?
- 3. Which word means not right for the occasion?
- 4. Which word means not to approve of something?

disagreement walker discussion

- 1. Someone who exercises by walking.
- 2. When you talk about issues, you have this.
- 3. When someone does not agree with you.

Write these words down on a dry-erase board. Choose the suffix that can be added to one of the words to come up with the correct answer.

Salesman ill heir cool

- 1. I am not feeling well today.
- 2. He sold me a car. He has this.
- 3. Air conditioning gives you this.
- 4. Her grandfather's will stated that she inherited a castle.

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# Synonym, Antonym, Homonyms, and Homographs

<u>Synonyms</u> are words that have the same or closely related meanings.

<u>Antonyms</u> are words that mean exactly the opposite of a given word.

- Note: Synonyms should be used instead of overused or tired words. These words are read and heard so often that they have lost their power.
- Consider one of these words instead of the word <u>bad</u>. Awful, disgusting, dreadful, horrible, hurtful, lousy, mean, harmful, mischievous, repulsive, wicked

Antonyms for bad: good, admirable, excellent, kind, pleasant

Consider one of these words instead of the word <u>big</u>, Enormous, mammoth, giant, gigantic, massive, huge, immense, colossal

Antonyms for <u>big</u>: little, small, tiny

Consider one of these words instead of the word <u>cute</u>. Adorable, charming, darling, enchanting, fanciful, precious, sweet, dainty, attractive

Antonyms for <u>cute</u>: ugly, hideous, frightful, unattractive, and ghastly

Consider one of these words instead of the word <u>fun</u>. Delightful, enjoyable, entertaining, exciting, fascinating, pleasurable, thrilling, relaxation, amusement

Antonyms for *fun*: tedium, sorrow

Consider one of these words instead of the word <u>give</u>. Bestow, contribute, distribute, donate, present, hand, provide, offer, supply

Antonyms for give: deny, return, withhold, take

Consider one of these words instead of the word <u>go</u>. Advance, depart, embark, emigrate, flee, journey, proceed, and travel

Antonyms for go: stop

- Consider one of these words instead of the word <u>got</u>. Achieved, acquired, attained, earned, gained, inherited, received
- Consider one of these words instead of the word <u>happy</u>. Blissful, cheerful, delighted, ecstatic, glad, jolly, joyful, contented

Antonyms for happy: sad, gloomy, mello

Consider one of these words instead of the word <u>hot.</u> Blazing, fiery, flaming, roasting, scorching, sweltering, toasty

Antonyms for *hot*: cold, freezing

Consider one of these words instead of the word <u>look</u>. Gaze, glimpse, inspect, notice, peer, scan, view

Antonyms for <u>look</u>: blind Consider one of these words instead of the word <u>mad</u>.

Aggravated, angry, displeased, enraged, frustrated, furious, irritated

Antonyms for *mad*: happy, glad, joyful

Consider one of these words instead of the word <u>new.</u> Fresh, modern, recent, unique, up-to-date

Antonyms for new: old, outdated, used

Consider one of these words instead of the word <u>nice</u>. Admirable, charming, considerate, delightful, generous, kind, pleasant

Antonyms for <u>nice</u>: mean, unpleasant, unkind

Consider one of these words instead of the word <u>small</u>. Dainty, microscopic, miniature, petite, puny, tiny

Antonyms for *small*: large, big

A <u>homonym</u> is sometimes used for words that are both spelled and pronounced the same but have different meanings.

Homonyms may also refer to words that are pronounced the same but have different meanings, without regard to spelling: **peace**, **piece**, in this sense, it is the same as a <u>homophone</u>. Other examples can be found on Dictionary Study pages.

<u>Homographs</u> are words that are spelled the same but have different meanings; they may or they may not be pronounced the same: lead – direct and lead – metal.

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# **Abbreviations**

#### **Common Abbreviations**

Abbreviations are shortened forms of words that are recognized in place of the actually words.

January Jan. Mondo	ay Mon.	dozen	doz.
February Feb. Tuesdo	ay Tues.	Doctor	Dr.
March Mar. Wedne	esday Wed.	Avenue	Ave.
August Aug. Thursda	ay Thurs.	inch	in.
September Sept. Friday	Fri.	yard	yd.
October Oct. Saturd	ay Sat.	Street	St.
November Nov. Sunda	y Sun.		
Government govt.			
Quart qt.			
Ounce oz.			
President Pres.			
Package pkg.			

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# **Basic Information**

Where do I live?

Your child should know his/her address, city, state, phone number, and parents' full names. He/she should be able to locate his/her state on the map.

Your child should also be familiar with our 7 continents, 4 oceans, and 5 Great Lakes.

<u>7 continents</u> – North America, South America, Asia, Africa, Australia, Antarctica and Europe

<u>4 oceans</u> – Pacific=largest; Atlantic=saltiest; India=warmest; Arctic=coldest

<u>5 Great Lakes</u> – Lake Huron, Lake Ontario, Lake Michigan, Lake Erie, Lake Superior

Directions – north, south, east and west

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# <u>Calendar Skills</u>

Your child should be able to recognize the days of the week, not just recite them. He/she should know the months of the year, how many days are in a month, how many weeks are in a year, how many days are in a year.

<u>Ask</u> – If today is Tuesday, then yesterday was ...? If today is Tuesday, then tomorrow will be? What is the 5<sup>th</sup> day of the week? What is the 1<sup>st</sup> day of the week? Today is Monday, two days ago was? Today is Friday, three days from now will be? What two days make up the weekend?

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# Earth Science

# <u>Weather</u>

Although our weather changes from day to day, we usually experience the same kind of weather from year to year.

The pattern of weather that occurs in a region over a long period is known as the climate. The climate of an area depends on three main factors: how far north or south of the equator it is (its altitude), and how close it is to the sea.

As a result of Earth's orbit and its round shape, sunlight warms areas near the equator more than areas near the poles. Tropical regions are therefore hot year round, and the poles are always cold. Areas between the tropics and the poles are temperate. This means that they have warm summers and cool winters.

Mountains are colder than lowland areas because as you climb higher the atmosphere becomes thinner and retains less heat.

In coastal regions, sea breezes and ocean currents prevent the weather from becoming too hot or too cold, so these areas have a milder climate than inland areas.

Where winds blow inland from the sea, they are usually moist and bring high rainfall.

Wind Patterns – Since hot air rises and cold air sinks, the Sun's uneven heating or Earth's surface causes air to circulate. These patterns of air circulation are deflected by the planet's rotation, and form the major wind systems. These winds carry warm or cold, moist or dry air, and an important influence on Earth's climate.

# <u>Clouds</u>

Clouds are made from water. Water gets into the air through **evaporation**. When water gets hot enough, it turns into an invisible gas. That gas is called water vapor. Clouds are formed when the sun shines on oceans, rivers and lakes. The sun heats the water enough to turn part of the water into vapor. The vapor goes up into the air until it starts to cool down. Cool air can't hold as much water as warm air. So the water vapor **condenses**. This means that the invisible gas turns back into liquid drops. These drops are very small when they start out. Cloud droplets can be tiny. It would take four of them to be as thick as a piece of your hair.

Well inside the cloud, all the droplets crash together all the time. They run into each other coming together, making bigger and bigger drops. Rain happens when the water drops inside a cloud are too heavy to stay up in the air.

There are different kinds of clouds. The three main kinds are called cirrus, stratus and cumulus.

Cirrus clouds are found high up in the sky. They are very wispy and thin, and you can often see right through them to the sky.

Cumulus clouds are big, puffy clouds that change shape as they float through the sky. They can look like all kinds of things.

Stratus clouds are flat clouds that stay low in the sky. They are the clouds that darken and bring rain.

Rain clouds are so full of thick water drops that no light from the sun can get through, making the cloud look dark. How much rain you get depends on where you live. We happen to live in an area with a rainy climate. The word **climate** refers to the kind of weather in a place. Every place has a different climate. In some places, it rains almost every day. However, in other places, it hardly ever rains at all. Those places are called deserts. People can tell how much rain a place gets by using a **rain gauge**. A rain gauge is a special instrument that measures the rain. The rain fall in through the top and the markings along the side tell how many inches it has rained.

Snow works a lot like rain. When the air inside a cloud is cold enough, the water droplets freeze. They turn solid and become tiny ice crystals. Water freezes when the temperature is 32 degrees or colder; this is when snow forms. When the ice crystals get big enough, they fall to Earth just like raindrops. These ice crystals join together to make snowflakes. When they become too heavy to hang in the air, they fall down to the ground. Then it snows! Millions and millions of snowflakes fall to the ground! Each snowflake has six sides. But no two snowflakes are alike. Each one has its own design.

You must use a thermometer to know the exact temperature. A **thermometer** is an instrument that is used to tell what the temperature is. If the red line goes up two marks past the number 55, this means that it is 57 degrees.

#### **Rainbows**

Rainbows are a kind of nature light show. They happen when it is raining in one part of the sky, and the sun is shining in another part. This means that it is still raining where the rainbow is. What we see is the sunlight reflecting off of the falling raindrops. The colors come from light being broken up. What looks like white light from the sun is really a collection of colors. When the light hits the raindrops, the water splits the light into all its different colors. The colors of the rainbow are always the same, and they are always in the same order, too. Red is always on top, followed by orange, yellow, green, blue, indigo and violet.

# Comprehension Questions

- 1. What are clouds made of?
- 2. What does evaporation mean?
- 3. What is the proper name for the invisible gas?
- 4. What is the word used for explaining how the invisible gas turns into liquid drops?
- 5. Name the three main clouds: Give some attributes of each cloud.
- 6. Can you name a place that has a rainy climate? Look on a weather map.
- 7. At what temperature does water freeze?
- 8. How does a rainbow form?

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# Weather Vocabulary

Meteorologist - one who studies the weather (weatherman) Climate – the pattern of weather that occurs in a region over a long period is know as the climate Temperature – condition with respect to hotness or coldness Forecast – prediction or foreseeing Thermometer – an instrument for measuring temperature Barometer – an instrument for measuring atmospheric pressure Freeze – to bring the temperature below 32 to form a solid by the way of ice Sleet – partly frozen rain Drizzle – rain in small drops Hail – pellets of ice falling in showers Precipitation - the quantity of rain, sleet or snow that falls Thaw – to become warm enough to melt ice Flood – a areat volume of water overflowing land Drought - long continued dry weather without rain Ozone – a form of oxygen, relating to the air Rain gauge – an instrument used to measure the amount of rain

Downpour – heavy rainfall Dew – small drops of moisture condensed from the atmosphere at night Dew point – the temperature at which dew forms Tornado – a destructive whirlwind that happen on land Humidity – dampness or moisture in the air Hurricane – a wind storm Cyclone – a storm caused by rotating winds Typhoon – a storm over the Pacific Ocean

#### Solar System

In the solar system, nothing stands still. Everything on Earth travels up to one thousand miles per hour. That's how fast the planet's surface is spinning at the equator. Other planets, moons, and even the sun itself spin, too.

While they spin, they circle. The moon circles Earth. Earth circles the Sun, so do other planets, their moons, and asteroids. Sometimes, these spinning circling, moving objects crash into one another. Comets plunge into planets. Asteroids smash into moons. The reason why all these planets, moons, and asteroids don't just stay put is gravity. All objects pull other objects toward them. The more mass (or matter) an object has, the stronger its pull.

The Sun has 99.9 percent of all the matter in the solar system; everything else makes up just 0.1 percent. So the Sun is, by far, the most massive thing in the neighborhood. Its pull is so strong that it can even "grab" comets millions of miles away. The Sun's gravity holds this solar system together. In fact, the Sun's gravity is why we even have a solar system.

The sun is the closest star to the Earth. The bright light from the sun is caused by energy. The sun is really a giant ball of hydrogen gas. Deep inside the sun, there are huge nuclear reactions going on all the time, which creates energy. The sun is extremely hot. Its temperature in the center of the sun can reach up to 57.2 millions degrees Fahrenheit!

#### <u>Planets</u>

**Mercury** is the closest planet to the sun. Mercury is full of craters, caused by it being hit over and over again by comets and asteroids over millions of years. The part of Mercury that's facing the sun can get to be over 800 degrees Fahrenheit, while the other side can be as cold as 292 degrees!

The second planet from the sun is **Venus**. The clouds that Venus is covered in are poisonous acid. The clouds are extremely hot. That's not the only dangerous about the atmosphere on Venus. The air on Venus is so thick and dense that it would crush a human.

The third planet from the sun is **Earth**. It is the only place in the universe that has life on it.

The red planet is known as **Mars**. Mars is the planet in our solar system that's the most like Earth. It's got mountains, canyons, icy poles ... even a thin atmosphere. There are some differences; Mars is very cold. The average temperature there is 81 degrees below zero. Also unlike Earth, Mars has two moons instead of one.

The largest planet in our solar system is **Jupiter**. It is a giant ball of liquid and gas that's heavier than all the other planets put together; more than 1300 Earths could fit inside Jupiter. Jupiter has an area known as "The Great Red Spot." This is a gigantic hurricane that has been raging for at least 300 years. That single storm is over 16,000 miles across. That's more than twice the size of Earth.

The planet with the huge rings is **Saturn**. They are beautiful; but they are really chunks of ice. Some are very large, while some are no bigger than a grain of sand. There are two theories of how these rings got on Saturn.

- 1. Some believe that Saturn got its rings when one of Saturn's moons was hit by a comet.
- 2. Others think the rings were left behind when Saturn was originally formed.

**Uranus** also has beautiful color rings. The rings are different than Saturn. They are a lot thinner. Because Uranus circles the sun tilted on its side, its rings and moons make Uranus look like a Ferris wheel.

The big blue planet is **Neptune**. Neptune is a planet no one would ever want to visit, because it has the most violent weather in the whole solar system. It has lots of raging storms on its surface and winds that can get up to 1240 miles per hour! There is no place to land on Neptune. It is one giant ocean of water and other chemicals.

The farthest planet from the sun is **Pluto**. It's so far from the sun and gets so little sunlight that its air freezes during the winter! Pluto flies around the Sun in an egg-shaped orbit. So it actually is closer to the Sun than Neptune during part of its 248 year trip around the Sun.

#### Vocabulary

A <u>solar system</u>: a sun (which is a star) and everything within reach of its gravity. Our solar system is a part of the Milky Way galaxy.

A <u>meteor</u>: an asteroid that has plunged into the atmosphere. Most meteors break up and burn. Sometimes pieces of meteors make it through the atmosphere and land on Earth. They then get a new name: meteorites.

## A galaxy: a very big system of stairs

An <u>asteroid</u>: a mini-planet. The largest on record, Ceres would stretch from Washington, D.C., to Louisville, Kentucky. Smaller asteroids would easily fit inside a house. Orbit: The path of a planet around a star.

<u>Crater</u>: The mouth of a volcano

<u>Comet</u>: A small frozen mass of dust and gas revolving around the Sun. Most comets in the solar system have long, stretched out orbits. When they pass very close to the sun, some of the ice vaporizes (turns to gas). The streams of gas and dust often form a bright tail.

The <u>Sun</u>: a star. A star is like a nuclear power plant. It's a giant ball of super hot gas that produces heat, light, and other kinds of energy.

<u>Asteroid</u>: Any of the many planetoids and other small objects located chiefly between Mars and Jupiter.

A <u>planet</u>: orbits, or moves in a path around a star. There are nine know planets in our solar system.

A <u>moon</u>, or satellite, orbits a planet. It can be less than a mile wide or as big as a small planet.

Atmosphere: the air surrounding the Earth

Universe: the totality of all things that exist; the world

#### Comprehension Questions

- 1. The sun is actually a what?
- 2. How many planets are there?
- 3. Name the planets in order from the closest to the farthest from the sun.
- 4. If you could choose a planet to live on other than Earth, which one would it be? Describe your life there.
- 5. How would you get around on Neptune, and avoid the chemicals?

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# <u>Volcanoes</u>

Volcanoes are like sleeping giants. They can awake after years or even centuries. When erupting, a volcano is very powerful. It can blow tops off mountains, flatten forests, and dam up rivers. Some eruptions have killed tens of thousands of people. A few have buried cities, while others have buried mountains. Some big eruptions have even changed the world's weather for years.

Some volcanoes build islands, mountains, plains, lakes, and the ocean floor; they have been a major part of shaping the earth. Even with all the dangers of a volcano, many people choose to live near them. The soil surrounding volcanoes is rich. Farmers like it, and plants grow better in volcanic soil.

Just as plants have roots that go down deep into the earth so do volcanoes. Volcanoes' roots lie 40 to 120 miles inside the earth, in a layer called the **mantle**. Temperatures there are as hot as 2200 F (1200 C). The hot melted rock becomes a thick, flowing substance called **magma**. Magma is lighter than the solid rock surrounding it, and it pushes up through cracks in the earth.

#### <u>Eruption</u>

Whenever a volcano erupts, it sends out a variety of hot materials, including lava, tephra, ash and gases. **Lava** is hot molten rock form the Earth's interior or inside. It is called magma while still underground. **Tephra** is material blasted into the air by an eruption. It includes pyroclasts (solid lava) and volcanic bombs.

**Pyroclasts** are big chunks of volcanic rock that are thrown out by explosive volcanoes when the plug in the volcano's vent shatters. Pyroclast means "fire broken." Big eruptions can blast pyroclasts weighing 1 ton or more up into the air at the speed of a jet plane. Cinders and lapilli are small pyroclasts. Volcanic bombs are blobs of molten magma that cool and harden in flight. **Bread crust bombs** are bombs that stretch into loaf shape in flight; gases inside them create a "crust."

Around 90% of material ejected by volcanoes is not lava, but tephra and ash. Whenever magma flows down the sides of a volcano, the volcano forms and grows. In the magma chamber, at the top of the volcano's cone, the volcano collapses into itself forming a crater called a **caldera** (boiling pot).

Cool lava hardens into different kinds of rock. Some rocks are **granite**, which has a coarse texture; **basalt**, which has a fine texture; and **obsidian**, which has a smooth texture similar to glass. These are all **igneous** rocks. These are rocks made from magma with different mixtures of minerals.

#### Nature Watch

Look for different rocks or purchase a small rock kit. Explain what kinds of rocks are there.

# Comprehension Questions

- 1. What are some things volcanoes form?
- 2. Why do some people like living near a volcano, despite the danger?
- 3. What is the building substance in the interior of the volcano called?
- 4. Name three substances that erupt from a volcano.
- 5. What is cool rock called?
- 6. Name three kinds of igneous rock.

## Thought Provoking

Do you think you would want to live near a volcano that has been dormant for 3600 years? If the answer is no, then why not?

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# <u>Science / Anatomy</u>

# <u>5 Senses</u> – sight, hearing, taste, touch, and smell

<u>Bones in your body</u> – You have 206 bones in your body, bones of different shapes and sizes. These bones are all joined together to form your skeleton. Bones are hard and stiff. They help protect your heart and lungs and brain and other parts of your body. Muscles are attached to your bones whenever you want to walk, or even scratch your head. Your muscles pull on your bones to move just the right part of your body – a finger, a toe, an arm, or a foot. The 33 bones in your backbone, or spine, are the most important bones in your body.

These bones are separate, yet they are joined together by muscles to form a long bony tube from the base of your skull down to you lower back. These bones, or vertebrate, as they are called, help you to stand up straight, but they also allow you to move easily and to bend. Without your backbone, you would fall over.

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## <u>Muscles</u>

Did you know? The biggest muscle in the body is the **gluteus maximus**, which is the buttock and upper thigh. The smallest muscle is the **stapedius**. This is attached to the tiny stirrup bone, deep in the ear.

Every movement you make uses muscles. They allow you to blink, jump, eat, run and sing. Your body has three different kinds of muscles. **Cardiac** muscles in the heart squeeze life-giving blood around the body. **Smooth** muscles in the walls of the digestive tract move food along. The walls of other internal tubes and bags, such as the arteries and lungs also contain smooth muscle. The most common kind of muscle is **skeletal** or striped muscle. You have about 640 skeletal muscles and these make up two-fifths of your body weight. Some are long, thin and strap like; others bulge in the middle, or are flat and sheet-shaped. Skeletal muscles are joined to bones, or to each other. When they contract, they pull on the bones and other tissues, and let you hoist up a huge weight or tie a shoelace.

## Muscle Problems

Muscles that are not used and exercised regularly become weak and floppy. They can shrink and waste away. If your breathing, heart and blood vessel muscles are weak, you can suffer from health problems. Some diseases affect mainly muscles.

Muscular dystrophy is the general name for a group of muscle wasting diseases. The muscle fibers in people with this disease shrink and die and are replaced by fatty and scar tissues.

## Fitter Muscles

Exercise makes all your muscles, even the heart and breathing muscles bigger and more powerful.

## Vocabulary

Skeletal muscle – bundles of muscle fibers. They are giant cells, slightly thinner than hairs, up to 12 in. (30 cm) long. These muscles are also called striped muscles because they have a regular banded pattern.

Smooth muscle – spindle shaped cells without banded patterns

Cardiac muscle – striped, spindle shaped muscle fibers that are located only in the heart

## Comprehension Questions:

- 1. What is the largest muscle in the body?
- 2. What is the smallest muscle in the body?
- 3. What are the three different kinds of muscle?
- 4. What makes up two-fifths of your body weight?
- 5. Your muscle allows you the ability to do what?
- 6. What is the name of the disease that causes muscles to shrink and die?
- 7. What good thing can you do for your muscles?

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#### Lungs

Do you know what organ in your body is like sponges and stretchy like balloons? You use them every day, all day and night, too – no matter what you're doing. They're your lungs – those elastic bags with millions of tiny air pouches inside. All day long, those sacs in your chest fill and empty with the breath that feeds your body the oxygen it needs to stay alive. Breathing isn't the only way these two pouches help you.

Your lungs work to keep dust, viruses, pollutants, and other particles in the air from invading your body. They also filter the blood that passes through them, eliminating tiny clots and fat globules. Don't forget about their role in speech – without the air your lungs exhale, you'd be silent.

## Parts of the Lungs

Lungs: Your right is slightly larger than your left and has three lobes, or segments. Your left lung has two lobes and contains a hollowedout notch where your ever-beating heart nestles.

Diaphragm: a large muscle below your ribs. It separates your chest cavity from your abdomen. Relaxed, your diaphragm is shaped like a bell that extends up into your chest. Contracted, it becomes flat, in effect enlarging your chest cavity.

Pleura: Your lungs are lined with pleura, a thin, moist membrane (a layer of tissue). The moisture of the pleura creates a seal with your diaphragm muscle. As your diaphragm moves, it moves the pleura and therefore your lungs with it.

Ribcage: You can't feel your lungs because they are protected by a cage formed by twelve (12) pairs of ribs. Your ribs are anchored in your spine and connected to your breastbone or sternum by cartilage. Cartilage is tough, elastic tissue found in various parts of the body.

Intercostal muscles: located between the ribs. When they contract, the chest cavity expands. As a result, air pressure in the chest cavity decreases, enabling air from the outside to flow into the lungs.

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#### <u>Heart</u>

Your heart is about the same as your fist. This bag of muscle filled with blood squeezes tirelessly once every second of your life to pump blood around your body. The heart is made up of two pumps which lie side by side. The right pump sends blood through the lungs to pick up the vital oxygen needed by all the cells in the body. The left pump sends blood around the body to deliver the oxygen. The blood then returns to the right pump and so on, round and round the double loop of the circulatory system. The heart pushes blood into the tubes called arteries, which carry the blood around the body. When the heart relaxes, it fills with blood that comes back from the body along floppy tubes called veins. A heartbeat occurs every time the heart squeezes and relaxes.

# Parts of the Heart

Aorta, pulmonary artery, pulmonary vein, left atrium, right atrium, left ventricle, right ventricle, and vena cava

# Comprehensive Questions

- 1. Your heart is about the size of which fruit? Grape cantaloupe apple
- 2. How many pumps are in the heart? What are their functions?
- 3. What are the two tubes in which blood is pushed or carried?
- 4. The heart is a what?
- 5. What do you think oxygen is? Blood gas tissue

## Vocabulary

Artery – a blood vessel that carries blood away from the heart Vein – a blood vessel that carried blood back to the heart Oxygen – a colorless, odorless gas essential to all life

Tip: Arteries and veins are the transportation for blood through the heart.

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## <u>Blood</u>

Blood flows from the heart around the body through veins and arteries. It delivers nutrients, collects wastes and fights germs. Arteries have thick, tough, stretchy walls that withstand the surge of blood pressure with each heartbeat. Arteries divide many times as they spread around the body, and form millions of micro blood vessels called capillaries.

### Inside A Capillary

Blood is made up of plasma, cells and platelets. Plasma is a watery liquid that contains body sugars, salts and many other dissolved substances. Carbon dioxide and other wastes from the cells can pass into blood, which takes them away to be removed from the body by the lungs, kidneys and liver. The capillaries join to make larger, thin-walled veins, which return the blood to the heart.

There are billions of doughnut shaped red blood cells that carry oxygen. Frilly-looking white blood cells kill germs and clean the blood. Tiny particles called platelets clot blood in wounds.

#### Cut to clot

At a wound, platelets and sticky fibers trap red blood cells, white blood cells and germs. A clot is formed that seals the leak.

#### Clot to scab

Cells at the wound's edges multiply to make new skin as healing begins. The clot hardens into a protective scab.

#### <u>Scab to skin</u>

Capillaries under the skin reseal, and the new cells grow together. Eventually, the scab falls off and the wound is healed.

### Comprehensive Questions

- 1. How does blood get around the body?
- 2. What size do you think the capillary vessels are? Water hose straw straight pin
- 3. What are two main substances carried through the capillaries?
- 4. How does carbon dioxide and other wastes exit from the body?
- 5. What must a cut do to heal?

#### Vocabulary

Capillary – the smallest type of blood vessel which is much thinner than hair. Substances such as oxygen and nutrients can easily pass through its very thin walls.

Plasma – the pale, watery part of the blood

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### **Digestive System**

#### <u>Part I</u>

The food that you eat takes a 24-hour journey through your body. It travels through the digestive tract, a tube-like passage that is about 29 ½ ft (9 m) long and runs from the mouth to the anus. Food is essential for two main reasons. First, the body needs energy to make it go. Food provides the energy need to power the millions of chemical reaction that takes place in the body. Second, food contains the nutrients needed to make new body tissue and to maintain and replace worn-out cells and tissues. **Digestion** is the process of breaking down the food, by physical and chemical means, into pieces that are small enough to be absorbed by the body.

Each part of the mouth has its own job, but the parts work together as a whole to begin the process of digestion. The lips open to let in food, then seal together to prevent it from falling out. The teeth chop and chew the food while the tongue moves it around. The cheeks bulge as food is squeezed and squashed between the teeth before the tongue presses it into the throat for swallowing. It then passes down the esophagus into the stomach. Salivary glands make watery spit, or **saliva**. When you eat, the saliva flows into the food and makes it soft and squishy. Saliva also contains enzymes that break down starch into sugar. This is the start to digesting your food.

## Comprehension Questions

- 1. How long does it take for food to journey through your body?
- 2. What are the two reasons food is essential for the body? Explain.
- 3. Explain how the digestion process works?
- 4. What substance helps food move through the body easily?
- 5. What presses the food into the throat for swallowing?
- 6. What breaks starch into sugar?

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## Science Vocabulary

Enzyme – A substance that speeds up, or slows down, a chemical change or reaction. Enzymes break down, or digest, the proteins in food into subunits, called amino acids.

Saliva – The watery fluid inside the mouth that softens and moistens food and contains enzymes to begin its chemical digestion. Another name for saliva is spit.

Digestion – The process of breaking down food, by physical and chemical means, into tiny pieces that are small enough to be absorbed by the body.

Nutrient – A food substance digested and used by the body for energy, growth and repair.

### <u>Part II</u>

The first stop for food swallowed down the esophagus is the stomach. The stomach is the widest part of the digestive tract. It is a muscle walled bag that can expand to hold about ½ gallon (2 liters) of food and drink. The stomach breaks up the food with powerful squeezing actions and strong digestive chemicals. One hour after eating food is turned into a lumpy soup called **chyme**. The soupy, partly digested food oozes into the next section called the small intestine. More enzymes are mixed in for further chemical breakdown. The digested nutrients are absorbed into blood flowing through the lining of the small intestine. Not everything you eat is digested by your body. Food that cannot be digested is stored in the large intestine. The large intestine is shorter, but much wider, than the small intestine. Four hours after eating, the stomach's job is done. The brownish, semisolid remains are called **feces** and are stored in the rectum. The final stage is when the remains are passed through the anus.

### **Digestion Countdown!**

Although you may gobble down a burger in just a few minutes, your digestive system stays on the job!

## A Burger's Trip Through the Digestive System

10 seconds -- Time it takes the food you swallow to reach your stomach.

4 – 8 hours – Length of time the food is in your large intestine before it is eliminated.

It may take 24 hours for the burger you ate to travel all the way through your digestive system!

### Why your stomach growls?

If you haven't eaten anything, and your stomach is empty, it may still "churn and mash;" but nothing's there! The growling you hear is gas being squeezed around your empty stomach!

## Comprehension Questions

- 1. Where is the first stop for food, swallowed down the esophagus?
- 2. About how much food can the stomach hold at once?
- 3. What are the two tubes that food passes through called?
- 4. What is the final stage food passes through?
- 5. Explain what happens when your stomach growls.

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## <u>Science / Nature</u>

<u>Parts of a Plant</u> – All flowering plants have the same four main parts --<u>flower</u>: turns into fruit or seed; stem: carries water and minerals to the leaves; roots: absorb water and minerals from the soil; leaves: produce food Most flowers make new plants by growing seeds. Non-flowering plants can't make seeds. They make new plants with spore (tiny cells). Mosses and bracken are non-flowering plants along with seaweed.

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<u>Snake skin</u> – A snake grows until its skin gets too small and tight, so the snake grows a new skin and sheds or gets rid of its old skin. Snakes shed their skins three or four times a year.

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<u>Acorn seeds</u> – An acorn grows up to be an oak tree. Inside of an acorn, there is a big seed and food to feed it as it begins to grow. Acorns fall down to the ground in autumn. In spring the seeds begin to sprout. Rain and sunshine and soil help the seeds grow into oak trees.

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<u>Honeybees</u> – The honeybee queen and some of her workers live through the winter inside their hive. In the fall, the workers collect sticky gum from trees. They use this to seal cracks in their beehive to make it safe and warm. Then when winter comes, they stay inside the hive. The bees crowd together to keep warm when it grows cold. They move their bodies and wings to make heat. They eat honey that they have stored in honeycombs during the summer. Near winter's end the queen bee begins laying eggs again. Soon the hive is busy with new worker bees making honey.

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#### <u> Jack Hanna – Zoo Keeper</u>

At twelve years old, Jack Hanna's family lived on a farm. He loved working with the farm animals. Their veterinarian, (a doctor for animals), Dr. Warren Roberts, ran an animal clinic in downtown Knoxville, Tennessee. Jack asked their veterinarian if he could clean the cages at his clinic. Dr. Roberts said yes. Everyone thought he would quit in a week, but he didn't.

Jack tells of how he will never forget going to the clinic. He worked there every single summer for four years. He worked 8 to 10 hours a day and was involved in all kinds of animal care. His duties over the tears included cleaning cages and grooming animals. He watched animals being operated on. When things were slow, he'd polish doorknobs or sweep the parking lot. He never missed a day of work. He was only paid \$10 a week. Jack loved his job so much that he says it didn't make a difference if he was paid or not. He tells he did it for the love of working with animals.

Dr. Roberts was also the veterinarian for the Knoxville zoo. Roberts would let Jack come along with him to care for the animals there, too. He saw the birth of animals and the death of animals. He was also bitten by many animals. Anything you can imagine, he was exposed to! To Jack, it was an experience of a lifetime. It was also a major turning point in his life, he explains.

Dr. Roberts gave him his first chance to really get involved with animals. For that he owes him a lot. Jack says he was lucky; he took a chance and asked to clean cages and got an opportunity of a lifetime. He worked hard and made the discovery that he wanted to be a zookeeper and work with animals the rest of his life!

Jack Hanna became a world famous zookeeper when he took over the Columbus Zoo and Aquarium in Columbus, Ohio and turned it into a model zoo. Today, he is the host of the television show "Jack Hanna's Animal Adventures," and a regular guest on several national TV shows, where he brings along animals to share the spotlight.

## Zoologists

Scientists who study animal are called **zoologists**. They put animals into different groups by the characteristics they have in common. The biggest group, of course, is the animal kingdom.

Another group is made up of animals with a backbone. They are called **vertebrates**, which mean "with a backbone."

Animals without a backbone are called **invertebrates**. A lot of odd animals don't have backbones, like the sponge, snails, slugs, and worms also don't have backbones.

A few animals wear their backbones or spines on the outside, like ants, cockroaches, and many other insects that have hard shells on the outside. Fish, amphibians (animals that live on both land and water), and mammals (such as dogs, cats, and people) are all animals with backbones.

## Nature Watch

You are a zoologist, watch for animal groups for a given amount of time, and chart which groups you see – vertebrate, reptile, invertebrate, mammal, has spine on the outside, lives on water and on land.

#### Thought Provoking

Can you think of another animal group and some animals that might go under your group?

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## Jumping Spiders

Contrary to what we know all spiders do no weave webs. Instead of weaving webs, jumping spiders capture prey by leaping and pouncing. Some jumping spiders can jump 40 times their own body length.

Jumping spiders use sharp eyesight to spot their prey. They have four pairs of eyes, and they can tell the difference between prey and another jumping spider as far as a foot away. They're harmless to people, and they eat flies and other insect pests. Jumping spiders use their sight to hunt, so they are mainly active during the day.

Jumping spiders live on the leaves and barks of plants, on the ground, and on rocks and buildings. Indoors, they may lurk near windows.

#### Nature Watch

Many jumping spiders are colorful. Look for one in a garden or on the outside of a garage or house. If you find one, watch it for a while. What are your some of your observations?

#### **Comprehension Questions**

- 1. What is the jumping spider's main tool for getting food?
- 2. How many pairs of eyes does a jumping spider have?
- 3. What pestering insects do the jumping spiders eat?
- 4. Where might jumping live?

#### Thought Provoking

Where do you know the jumping spider's other set of eyes are located?

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#### <u>Birds</u>

Like mammals, birds are warm-blooded. However, birds have feathers, beaks and wings for flying. Can you imagine living with your hands tied behind your back? A bird's beak is so important to them. A bird cannot use its wings to hold or grip anything, or even to scratch itself. It has to do all these things either with its beak, or with its feet. There are over 8,600 species of birds in the world.

The **peregrine falcon** is one of the fastest birds around. But not all birds fly. **Penguins** use their wings to swim. The **ostrich** is too big to fly. The **emu**, a bird from Australia, has wings so small, it uses them only to cool itself.

While a bird's wings are important, so are their beaks. Each bird has a beak that is shaped to suit its style of life. All beaks have a framework of bone covered with **keratin** – the same substance that makes up our fingernails.

A **toucan's** brightly colored beak can be almost as long as its body. The toucan uses it like a giant pair of tweezers to collect fruit in its home in the treetops. Although the beak looks very heavy, the inside is built like a honeycomb and is full of air spaces. There are over thirty species of toucan, and they all have different beak patterns.

Hunting birds, like **eagles** and **owls**, feed on meat; but like all birds, they have no teeth and cannot chew their food. Instead, hunting birds have beaks that end with a sharp hook. They use it to tear their food up.

Hummingbirds are tiny birds that feed on nectar, which is a sugary liquid made by flowers. A hummingbird buzzes between flowers like an insect, and hovers in front of each one while it inserts its long beak. The two parts of the hummingbird's beak fit together to make a tube like a drinking straw. The bird sucks up the nectar, and moves on for its next meal.

The **flamingo** feeds with its head upside down and its beak dipped in water. Its beak works like a combined pump and sieve. The lower half of the beak pumps water through fibers on the upper half of its beak and its tongue. The fibers catch tiny animals and plants, and the flamingo swallows them.

The **spoonbill** is a long-legged bird that wades in shallow water. Its strangely shaped beak looks quite unwieldy, but it is a very effective tool for catching small animals underwater. The spoonbill hunts by walking forward slowly, with its beak dipped beneath the water's surface. It holds the two halves of its beak open like a pair of tongs and moves its head from side to side. If a small animal touches its beak, the spoonbill feels it straight away, and snaps its beak shut. Because spoonbills hunt by touch rather than by sight, they cat catch food in muddy water.

A **woodpecker** hammers at three trunks to get at wood-boring insects, and also to call to others woodpeckers. As well as having a long, sharp beak, a woodpecker also has an amazingly long tongue with sticky tip, which it uses to pull out the insect.

#### Nature Watch

Go bird-watching; note all the different birds you see. Use a birdwatching sheet to write them down.

#### **Comprehension Questions**

- 1. Name the birds that do not fly. How do these birds get around?
- 2. What does a bird have on its body needed for flying?
- 3. What are all birds' beaks made of?
- 4. Which birds are meat eaters?

#### <u>Thought Provoking</u>

Why do you think birds have different beaks that allow them to eat?

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### Eggs by the Dozen

Colorado potato beetles lay a lot of eggs – up to 500 per beetle mom, and that's just fine with the ladybug. It will go through that clump of potato beetle eggs like a kid with a bag of potato chips. If insects eat insect eggs, do spiders eat spider eggs? Yes.

### Nature Watch

Read more about the Colorado potato beetle in your encyclopedia.

### Thought Provoking

Why do you think the ladybug doesn't mind if the beetle has up to 500 eggs?

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# Animal Eggs

An egg is a special cell that develops to form a young animal. The original cell that makes up the egg soon begins to divide. It does this many times, until there are millions or even billions of new cells. The new cells make different layers, and these fold up and change shape. After days or weeks, a new animal body begins to form. All animals that reproduce by mating have eggs.

Like a space station orbiting the Earth, a bird's egg contains everything that its passenger needs to survive. The egg contains lots of yolk, which is a private food supply for the developing bird. The egg white, or albumen, holds a store of water. The shell around the egg keeps it from losing too much water, but lets in oxygen.

Animal eggs come in three styles – soft, leathery and hard.

## <u>Soft eggs</u>

Frogs and toads spend much of their lives on land, but they have to return to water to lay their eggs. The eggs are quite small when they are laid, but they quickly absorb water and this gives them a thick coating of jelly. The single cell divides many times to form a ball of cells, and from this a tadpole slowly takes shape. The tadpole eventually swims free from the jelly, and starts to feed on tiny plants. As it gets older, it becomes a meat-eater and develops legs. Once the tadpole has absorbed its tail, it is ready for life on land. Some tree frogs, on the other hand, lay their eggs on tree braches or leaves, which keeps the eggs safe from pond predators.

#### Nature Watch

Watch out the next time you're by a pond for frog eggs.

#### Thought Provoking

When tree frogs lay their eggs on tree branches or leaves, so that they are safe from pond predators, are the tree frog eggs safe from tree predators?

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#### Chewy

Many reptiles lay eggs that have leathery shells. Big animals with sharp teeth and claws can tear them open. Other animals have a harder time, but that doesn't stop them! Some insects, such as a mole cricket, cut their way in with their tiny jaws. Snails us a rough, file-like "tongue" to scrape open the shell. A snake's egg has a soft, leathery, waterproof shell. Some snakes develop and hatch inside their mother's body. Scarlet snakes slice open the shell with a pair of sharp points at the back of their jaws.

### Butterfly eggs

If you look closely at leaves during the spring and summer, you may see little clusters of eggs laid by butterflies. When a caterpillar hatches from its egg, it often eats the shell.

### Nature Watch

Where would you watch to find a reptile's egg?

## Thought Provoking

Do you think it is wise to remove a reptile's egg from its environment? What might happen if you did?

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## <u>Hard</u>

Most birds open eggs by pecking at them with their sharp beaks, but ostrich eggs are way too tough to peck open. The Egyptian vulture has another trick to try. It looks around on the ground for a stone, and then it picks up the stone and drops it on the egg. About half of the time, the stone misses; but if the stone hits the egg, the egg may crack. Then the vulture uses its beak to widen the crack and get at the food inside.

### Brown Hyenas

Most mammals just aren't strong enough to open an ostrich egg; but brown hyenas have super strong jaws. They can use their pointy teeth to crack the egg. After cracking the egg, the hyena chomps open the egg. It will lap up the **goo** inside.

### <u>Gila monster</u>

A Gila monster is a lizard with wide jaws and sharp teeth. It can swallow most small bird eggs and crush many large ones, but then what? Crunchy eggshell bits are no treat. So this lizard gulps down the egg white and yolk, and then spits out the shell.

<u>Nature Watch</u>

- 1. Pay attention to the trees in your area, or areas around your window sills outside, see if you see any birds' nest.
- 2. Watch the nature channel or a nature show on television to see some animal eggs.
- 3. Visit the museum's cycle of life exhibit and see if they have baby chicks hatching from their eggs.

Thought Provoking

- 1. What size do you think an ostrich egg is? Why do you think this?
- 2. Why is there goo inside the ostrich egg?
- 3. How long do you think it takes for a baby egg to hatch out of its egg?

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# <u>Amphibians</u>

Amphibians are animals such as frogs and salamanders. Most **amphibians** live part of their lives in water and part on land. Young amphibians live in the water and breathe with gills just as fish do. The gills disappear when the animals grow up and can move from the water to land. By then, their lungs are developed and they take in oxygen from the air. However, adult amphibians still often spend time in water. When under the surface, they breathe through their skin.

## <u>Nature Watch</u>

Visit a pond and see if you can spot what a frog looks like before it is actually a frog.

### Thought Provoking

When a frog moves from wat	ter to land,	where	do you	think they	are most
of the time on land?					
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## <u>Fish</u>

Fish are cold-blooded animals. They have gills so they can breathe underwater. Most fish have scales instead of skin, and fins that let them swim. Fish in the ocean are called saltwater fish because the ocean is salty. Fish that live in rivers and lakes are called freshwater fish. Fish come in all shapes, colors, and sizes.

The whale shark is the biggest living fish. It can get to be 46 feet long, but it's not a whale. It's just big like one. Scientists have found fossils of a fish twice as big as that. They've also found "living fossils." These type of fish, called **coelacanths**, are the oldest known fish species, or type of fish.

Since over half the world is ocean, there's room for lots of fish. Some fish live so deep in the sea that they never see sunlight.

#### How fish swim

Fish usually have several fins, but most use just their tail fin to move forward. When a fish swims, it flicks its tail sideways and backwards against the water to move forward. Fish use their other fins for steering and turning on the spot. Most kinds of fish have fins reinforced by bony "rays." These rays open and close the fins like a fan.

# <u>Rays</u>

Rays have very flat bodies and broad pectoral fins. They flap their way through the water rather like birds flying through the air. Together with their relatives the shark, rays make up a group of about 600 species called **cartilaginous fish**. Their skeletons are made of cartilage instead of bone. The biggest ray is the gigantic, but harmless, **manta**, which can measure up to 20 feet from tip to tip.

### <u>Squids</u>

The squid's body contains a cavity filled with water. The squid can squirt water forward through a tube called a siphon. The force of the water works like air leaving a jet engine, and it drives the squid in the opposite direction.

### <u>Seahorses</u>

Seahorses are some of the strangest fish in the sea. They swim with their bodies upright, and they often anchor themselves by wrapping their flexible tails around pieces of seaweed. They are also the slowest swimmer of all fish. A seahorse pushes itself along by beating its dorsal fin, and it can take about 3 or 4 minutes to swim just 1 yard. Tiny pectoral fins just behind a seahorse's head help it to maneuver.

Whales look quite like fish, but they are really mammals that have taken up life in the sea. One easy way to tell a whale from a fish is to look at its tail. A whale's tail is horizontal, and is made up of 2 flat "flukes" which move it up and down.

A ragworm's body is divided into many segments. Each segment has 2 flaps which are stiffened by special rods and a collection of bristles. The flaps work like oars. When the ragworm wriggles its body, they push it through the water. The worm can also use its flaps to walk across the sandy ocean floor.

#### <u>Nature Watch</u>

Visit a pet store that will allow you to look closely at all the different types of fish and document what you notice about the different fish.

## Comprehension Questions

- 1. What is a cold-blooded animal? Explain.
- 2. Look for a book on fish and locate their gills, scales and fins.
- 3. What do you think a fossil is?
- 4. How does a ray make its way through the water?
- 5. What is the slowest swimmer among all fish?
- 6. Are whales fish?

### Thought Provoking

Do you think you would like to visit the ocean floor?

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### Whales and Dolphins

Whales and dolphins nap at the surface for short periods of time. They never sleep as deeply as you do; instead they shut down half of their brains, keeping the other half alive. If you ever see dolphins or whales swimming slowly along the surface, it's a good bet they're dozing.

#### Nature Watch

Visit the Alder Shedd Aquarium and watch the whales and dolphins in their habitats. What do they do?

## Thought Provoking

While whales and dolphins only shut down half of their brains to sleep, what do you think the other half is doing?

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## **Grizzly Bears**

Grizzly bears like to eat meat and fish. If hey can't find those foods, they fill up on roots and berries. In the fall, grizzly bears eat and eat and eat. Since most grizzlies will spend the winter without any food at all, they have to put on lots of weight, especially fat.

Before winter sets in and the snow gets deep, the grizzly bear begins preparing for its winter home. They do this by digging into a slope or hillside to make a den, (a bear's home), where they sleep through the winter weather. This is called **hibernation**. Many bears spend four to six months in a den, waiting for the arrival of spring. Sometimes female bears even give birth in their dens in the middle of winter.

Grizzly bears live in Alaska, in northwestern Canada and in the high mountains of the western United States.

### <u>Nature Watch</u> –

- 1. Can you spot an animal getting ready for the winter? What kind of food are they gathering and storing?
- 2. Can you spot an animal that leaves the area before winter and comes back in spring?

## Comprehension Questions

- 1. What types of food would a grizzly bear prefer to eat?
- 2. What will they eat in place of this?
- 3. How long will the grizzly bear go without food?
- 4. Can you go that long without food? Why not?

- 5. What is a den?
- 6. What does it mean to hibernate?
- 7. How long will a bear live in his winter home?
- 8. Name at least one place we would find a grizzly bear.

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### <u>Moose</u>

The moose takes a long time to digest its food. It eats leaves, twigs, bark and water plants. Most animals can't digest these things. The cow, deer and moose have a special kind of stomach that can do the job.

The moose must chew each meal twice to help break down its food. It spends much of the day eating lots of food. Later, while the moose is resting in a safe place, it brings the food back into its mouth and finishes chewing.

Moose live throughout most of Canada and Alaska and in parts of northern United States.

#### Nature Watch

Look at plants in a forest or field and try to spot places where animals have been feeding.

#### Comprehension Questions

- 1. What things do a moose eat?
- 2. What must a moose do to digest its food?
- 3. What did you learn about the moose that you found interesting?

### Thought Provoking

Where do you think the moose is bringing back his food from to finish chewing it?

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#### <u>Goats</u>

Goats are grass eaters. Their hooves help loosen and mix the dirt. Their manure even provides food for the plants. Mealtime for a goat can also be work time for some goats. In Boulder, Colorado goats do the work usually done by lawn mowers. They are good climbers. They will do a better job clearing the steep, rocky hillside than a regular mower. Also, the goats move by themselves, work quietly, and don't pollute.

Goats belong to a group of animals called **ruminants**. These animals have four-part stomachs that can break down tough plants. So they can live on plants that most animals do not eat. Cows, sheep, deer, and giraffes are also ruminants. Different ruminants eat different things. Cows prefer soft, green grasses. Sheep love to nibble sagebrush and deer will pick flowers off some plants the way a person might lick frosting from a cake. Even among these expert plant eaters, goats are the best grass eaters.

Goats have special saliva that lets them eat weeds that make most other animals sick. They'll munch bitter-tasting bark, leaves, and thorny shrubs. Because they will eat almost anything, they can trim most plants. Some cities use goats to control brush that might otherwise catch fire. In Boulder goats control weeds that crowd out other plants. They like weeds and will often eat them before other plants.

However, you would not want a goat to mow your lawn. A hungry goat would quickly turn your yard into a bare patch of dirt. If goats eat too long in one place, they will pull up grass roots and tree seedlings. In some countries goats have been banned for destroying entire forests.

For cities across the United States, though goats are ideal weed eaters, as long as **goatherds** make sure that they don't eat too long in one spot.

### <u>Nature Watch</u>

Look for other cities that you might see herds of goats.

# Comprehension Questions

- 1. What is a ruminant?
- 2. What helps goats to eat weeds that make most other animals sick?
- 3. Name a city where you know goats are controlling brush that could possibly cause a fire.
- 4. What do you think a goatherd is?

Date introduced \_\_\_\_\_\_ Date Mastered \_\_\_\_\_

## <u>Fishers</u>

Fishers are large members of the weasel family. You can find them living where there are lots of trees. They often make their dens in hollow trees, under logs or in bush piles.

Very few animals can hunt porcupines, but fishers do it often. They're quick enough to avoid the sharp quills. Fishers also feed on some animals that live in open places, such as voles and snowshoe hares.

Fishers live throughout much of Canada and in several northern states.

## <u>Nature Watch</u>

Visit a forest preserve that has some logs or hollow trees. Look for tracks, and other signs that animals are using these parts of the forest.

# Comprehension Questions

- 1. What do you think a hollow tree is? Why can fishers be in them?
- 2. In what places in the world would you find fishers?
- 3. What are some animals fishers hunt?

#### Thought Provoking

What do you think might happen if all the hollow trees and logs were removed?

Date introduced \_\_\_\_\_ Date Mastered \_\_\_\_\_

#### <u>Lions</u>

Lions are big cats that live in groups. Most of the time members of these groups (called **prides**) just sleep and sleep. They hunt for food about every other day; but every morning and evening they get together. That's when the cubs and even sometimes the adults play.

Young cubs easily climb trees. They wrestle, chase, nip, tag and tussle with each other. Adults usually put up with this play. Sometimes, they even join in. A cub will stalk, pounce on, and nab almost anything. It's not understood why cubs play so much. It's thought that it helps them learn important hunting skills, how to get along with each other, or possibly just using up all the extra energy they have.

Like many cats, most lions don't like to get wet. A cub's life is not all fun and games. Cubs spend most of their lives doing what lions do best – sleeping. They may spend 19 hours each day asleep! The rest of their time is divided between playing and trying to get food.

When it comes to eating, the sneakiest cub wins. Young cubs drink only milk. They usually get this milk from their mothers, but sometimes a cub will sneak up and nurse from one of its aunties while she's still asleep. When a cub gets to be three or four months old, it will start to eat meat. When some of the adults in a pride go off to hunt, the older cubs may tag along. If the hunt is successful, the young will dash in and grab a bit of meat.

It is custom that when everyone in the pride has eaten the meat, the lions will slump into a long slumber. Soon, however, the cubs are awake to begin again to rough play.

#### <u>Nature Watch</u>

Visit a zoo soon and watch the adult lions and the cubs. What do you notice? Are they sleeping or playing?

#### Comprehension Questions

- 1. What is a cub?
- 2. What is a pride?
- 3. How many hours a day will lions sleep?
- 4. When they are not sleeping, what are the lions doing?
- 5. How do young cubs get their food? What kind of food does a young cub eat?
- 6. How are cubs sneaky?
- 7. When does a cub's diet change?

### Thought Provoking

Why do you think lions travel in prides?

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## <u>Bats</u>

Bats are mammals, the only ones that can really fly. Bats have the "right stuff" for flying. Like birds, they have real wings. Also, their bodies are small, with lightweight bones, (Most bats can fit in a person's hand.). Expect for rodents, bats are the largest group of mammals in the world. There are many nearly 1,000 species (kinds) of bats. Bats are found on every continent except Antarctica.

Attributes of a bat – mammal; an animal with a backbone and a body covered with hair, babies nurse their mother's milk.

A bat has sharp, curved clever claws on its feet. The claws help the bat cling to small cracks as well as hang upside down and climb. A bat also uses these claws to keep it fur combed and tidy.

There is no such thing as being blind as a bat. Some species of bats see better than others, and many see better than you do in dim light.

Bats are the only mammals that can fly using muscle power. It flies with its arms and hands! Each wing has an upper arm bone and two forearm bones. It also has four very long fingers and a short thumb. The thumb has a claw on the end that comes in handy when climbing across tree bark or rough cave walls. Two layers of thin but tough, leathery skin (called the **patagium**) cover these bones.

Most bats are insects-eaters, but in warm places, many species eat fruit, along with nectar, leaves and pollen. These bats are often called "fruit bats." Insect-eating species have a kind of build in sonar system for finding and catching their prey at night. It's called **echolocation**. A bat sends out squeaks through its mouth or nose. The sounds echo, or bounce off, objects and bat's ears. This tells the bat exactly what kind of prey is nearby and what the prey's location is. The bat then sweeps in and grabs it with its mouth or scoops it up with its tail or wings. A bat may track down and eat hundreds of insects in a night.

The largest bat is the Malayan flying fox. The name "flying fox" comes from its fox-like face. Malayan flying foxes are found in South Asia. Their wings may stretch more than six feet (1.8m) across, from tip to tip – about the same as an eagle's wingspan, but each weighs only about three pounds.

The world's smallest bat is the hog-nosed bat, which lives in the Asian country of Thailand. It weighs no more than a dime!

Bats **roost** (or rest) during the day. Their small size and dark coloring make it easy for them to hide. They roost in all sorts of places, including caves, trees, and buildings. They are out of reach of most predators.

A bat may roost alone or in a colony with hundreds – or millions of other bats. When roosting, most bats hang upside down. Then to take off, they just let go, spread their wings, and start flapping. This quick "batty" escape is especially handy if a snake or other predator just happens to get too close.

#### Nature Watch

Go out on some warm evening, and look up. See if you notice any bats zigzagging around.

### Comprehension Questions

- 1. How many different species of bats are there?
- 2. What helps bats cling to small cracks, hang upside down and climb?
- 3. What do most bats like to eat?
- 4. Explain how a bat hears.
- 5. What does the word prey mean?
- 6. What are the attributes of a bat?
- 7. What might be a bat's habitat?

### Thought Provoking

What do you think is meant by colony of bats?

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## **Cold Weather Animals**

# Artic Foxes

Although the **artic fox** has a beautiful white coat, its coat serves two very important purposes – 1. It allows the fox to camouflage (i.e. to blend or to hide) in the snow as a means to protect itself from other predators. The arctic fox's camouflage also helps it to hide when hunting its own meals. Its favorite food is hamster-like creatures called lemmings. 2. The arctic fox's thick fur also protects it from the cold. Its fur is so thick that the heat given off by its body is trapped between the hairs and helps to keep the fox warm.

Arctic foxes even have fur on the soles of their feet. This keeps their feet warm and stops them from sliding on the slippery ice. These foxes are designed this way, because they have to cope with their environment, which is very cold, snowy weather. Arctic foxes live in lands around the North Pole, at the top of the world.

## <u>Nature Watch</u>

Watch for any animals that you notice can camouflage itself in its environment. It may be a plant or a tree or bushes.

## Comprehension Questions

- 1. What do you think the name arctic means?
- 2. Explain what camouflage does for an animal.
- 3. What is a predator?
- 4. Where is the North Pole located on the map or globe? Find it.

## Thought Provoking

An arctic fox's fur was designed for its environment and climate in which it lives, how is your body designed to keep the right temperature for your climate?

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## Polar Bears

Polar bears are big and fierce. If a large male bear reared up, it would stand close to 10 feet tall. At around 1450 pounds, it weighs more that nine men and it can run much faster than a man, too.

Polar bears live near the North Pole. Their whitish fur keeps them warm and camouflages them when they hunt other animals, especially seals, their favorite food.

Sometimes a bear will lie beside one of the breathing holes that seals make in the ice. If a seal comes up for air, the bear clubs it with its huge hairy paw. Then it grabs the seal in its claws and hauls it out on the ice to eat. Polar bears have a few enemies of their own. They are sometimes attacked by walrus and killer whales when swimming in the sea, but no wild animals are fierce enough to threaten them on land.

### Nature Watch

Watch for other animals that are over a thousand pounds. Name one on <u>land</u>, <u>ocean</u>, <u>arctic waters</u>, etc....

### Comprehension Questions

- 1. Name two things the polar bear's fur is useful for?
- 2. What animal is the polar bear's favorite food?
- 3. What animals attack the polar bears while they are swimming in the sea?

### Thought Provoking

Why do you think the ice is strong enough to hold a polar bear that is 1450 pounds and not crack?

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# <u>Mini Gardens</u>

Gardens do not always have to be outdoor plants that take a lot of care. There are other options that allow the student to experience gardening with the hassle of keeping it up. Try simple dish gardening about different geographical locations.

## Example - Mountain Shade Garden

### <u>Steps</u>

- 1. Spread a layer of gravel on the bottom of a pie pan, or other shallow container.
- 2. Place a large rock (the mountain) on top of the gravel.
- 3. Add potting soil and a few small shade-loving plants. Add some moss around the rock, too. Fill in around each plant with soil, packing it gently, and then water the plants lightly.
- 4. Add any other decorations you want, such as sand, small shells, and twig "tents."

Note: Caring for this garden is very easy.

5. Put your dish garden in a northern window – one that's not in bright sun. Be sure you keep the soil moist not wet. If you use moss, mist it every few days.

Science Lesson: Do a small plant study. Make sure you choose plants that need the same kind of soil and the same amount of sun and water.

Chart the changes in your garden weekly – biweekly.

Geography Lesson: Investigate why plants in the mountains grow well in the shade. What is significant about the mountain terrain?

# Sunny Desert Scene

<u>Steps</u>

- 1. Use a container with holes in the bottom. This keeps your garden from staying too wet.
- 2. Add cactus potting mix.
- 3. Add small, desert-type plants.

Note: Ask at a garden center about the best small succulents (plants that store water in their thick stems and leaves)

4. Add some smooth stones.

Note: Here's the easy part, water your garden and don't water it again until the soil is very dry.

Science Lesson: Get at least two different kinds of plants and compare their growth. What other plants are succulents?

Geography Lesson: What is a desert and where are deserts located? What kind of terrain makes it just right for cactus plants to grow there?

# **Death Valley**

<u>Steps</u>

Note: This is truly a no fuss, no care garden.

Use a layer of sand, a few different shaped rocks, driftwood and wild branches.

Tip: Since this is Death Valley, you might want to add things such as animal bones, snake skin, dried seed pods, etc. ..., be creative. Note: Here's the easy part – no watering.

**Science Lesson**: What kinds of rocks did you use to complete this garden? Will anything grow in this garden?

**Geography Lesson**: Where is Death Valley? What is significant about Death Valley?

## Science Fair Projects

To the Instructor: Every year students are required to complete a science fair project. Parents and teachers become overwhelmed trying to figure out an age-appropriate, non time consuming project. A good science fair project is geared toward the interests of your student. Try to recall questions that your student may have asked you that required more than a quick answer. You may also brainstorm for topics of interests. Remember the purpose is to promote learning not just a grade or extra busy work.

The science fair project provides an opportunity for your child to explore a topic in greater detail than is provided in a classroom setting. A topic should be chosen that is of interest to your child and allows for exploration. The science fair project is presented using the scientific method – an organized way of investigating a problem and coming to a conclusion.

Begin discussing the science fair project by defining the vocabulary used in the scientific method: purpose, hypothesis, procedure, materials, results and conclusion.

### Let's begin.

To the student: Today we are going to begin discussing the way that scientists find answers to their problems or questions. In order for someone else to find the answer to the same question, scientists use what is called the scientific method. The scientific method is an organized way of investigating (finding an answer) to a problem or question and then coming to a conclusion based on information gathered from the experience.

#### The Scientific Method

The scientific method consists of six main parts: purpose, hypothesis, procedure, materials, results and conclusion.

Purpose or Problem – The purpose or problem is the why of the project. It is always presented as a question. The purpose states the reason for the project itself.

Example: What are my fingernails made of? What will help them to grow longer? Why do they chip so easily? Will a particular polish or nail strengthener really make a difference? How fast do nails grow?

Why do I get a scar when I fall or cut myself? Does a bandage really help it to heal faster? Why or Why not? What are germs?

What kind of shampoo is best for my hair? Why do I have to keep getting a haircut? Why kind of oil is best for my hair? Do some chemicals cause damage to the hair? Why or why not? How can the hair be protected from more damage?

Which laundry detergent works best on tough stains? What dishwashing liquid makes the most soap bubbles? Do more bubbles mean that the soap is cleaning?

What are bird feathers made of? Are all insects alike? Does an animal's color provide protection (camouflage) from other animals (predators) or its surroundings (environment)?

To the Instructor: Before answering any questions research or additional reading should be done. The student can gather information through reading books, magazines or from educational programs. In addition, observations can be made. Nature walks are an excellent way to gather information especially for the younger student. Gathering information (research) causes the student to think about possible answers to their questions.

To the student: Now that we have a question, let's do some reading to find out more information about our topic. (If time permits, let's go

outside today and explore (look around) our surroundings (environment) for information. If a field trip is planned be sure to talk to the student about how the trip relates to their topic.)

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#### Phase II Proposing an Answer

To the Instructor: In this phase, the student will try to come up with a reasonable answer to their question based on the information that they have gathered. The answer to the student's problem or question is called a hypothesis.

To the student: Today we are going to try to answer your question. Based on what we have read, seen or talked about, what do you think might be an answer to your question? [Wait for reply] Using the scientific method the answer to your question is called the hypothesis.

Hypothesis – The hypothesis states the answer to the problem. The hypothesis gives an educated guess to the problem of the project based on previous knowledge about the problem.

Example: Nails chip less when protected from water. Nails grow about 1/8<sup>th</sup> of an inch every week.

A bandage helps a scar to heal faster. A scar acts as the body's natural bandage.

Tide cleans better than All on tough stains. Palmolive makes more soap bubbles than Ivory.

An animal's covering helps to protect it from danger. An insect's covering helps it to adapt to its surroundings.

The closer a magnet is to its object, the stronger its pull will be.

Now that you have a possible answer to your question, it's time to verify (or check to see if you are right) your answer. The act of verifying your answer is called the procedure. The procedure is process of testing your answer in a way that others can also test your answer. Since someone else may also want to do what you are doing, then you must tell them exactly how and with what materials you did what you did.

Think carefully about what materials you will need to test your hypothesis. Materials do not have to be complicated; they just have to provide a means of testing your hypothesis.

Example: Procedure #1— verifying the relationship between the pull of a magnet and distance

- 1. Place a paper clip on a number line at 0.
- 2. Place the magnet at 6.
- 3. Slide the magnet along the number line until the paper clip moves.
- 4. Repeat steps 1-4 with different objects.

Procedure #2 -- verifying what causes ice to melt faster

- 1. Pour water into a container with salt.
- 2. Place ice into the container.
- 3. Check the ice every 5 minutes to see if it has melted.
- 4. Repeat step 3 until the ice melts.
- 5. Record the time.
- 6. Repeat steps 1-5 with containers of sugar and alcohol.

Procedure #3 – verifying how fast nails grow

- 1. Measure the length of your nails today.
- 2. Measure them again after two days.
- 3. Repeat step 2 every two days for a two weeks.
- 4. Record the length of the nail after every measurement.

Procedure #4 – verifying how nails can be protected from chipping.

- 1. Check nails for any chipping before experiment. If nails are already chipped, file nails carefully first.
- 2. Put protective coating on nails of one hand. Do nothing to the other hand.
- 3. Check each hand every two days. Write down what you see.
- 4. Repeat step 3 every two days for two weeks.

As you are performing your experiment, keep track of the materials that you are using and any observations that you make.

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Phase III – Telling others about what you have found out.

To the Instructor: In this phase, the student will report the findings of their experiment. In this section, the student should carefully report their observations (what they saw, felt, heard, touched, or smelled).

To the student: Now it is time to tell others about what you have been doing. When you tell about what you did, make sure to include every thing that you used to do the experiment.

Example: Results #1 – choosing an effective laundry detergent

While washing a sock with mud, Tide cleaned the sock better than All Detergent.

Results #2 – protecting nails from chipping

The hand that was covered with the protective coating showed less chipping than the unprotected hand.

Results #3 – making ice melt faster The ice in the container with alcohol and water melted faster than the ice with salt or sugar.

To the Instructor: The final part of the experiment is drawing conclusions. The conclusion gives an analysis of what has taken place. In the conclusion the student not only should tell whether or not their hypothesis was correct, but also give possible reasons for why the hypothesis was proven or disproved. The conclusion gives the possible factors (variables or events) that affected the results. The conclusion should also give any unanswered questions that have come to mind as a result of the experiment.

To the student: Now it is time for you to tell what you think about your results. Why do you think that you got the results that you did? What things or events in your experiment helped to prove or disprove your hypothesis?

Note: For the younger child, being able to tell you about the experiment is an excellent start. Verbalizing the process even before the child can write it down, shows whether or not they have understood what has taken place. You may have to record their results and write the conclusion as they tell it to you.

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# **Displaying Your Science Fair Project**

Materials needed: A display board, markers, letters, glue stick

To the Instructor: The science fair project is not complete until it is properly displayed. The display board for a science fair project is divided into three sections. I will describe each section from left to right. The title of the science fair project is generally placed at the top of the center section with the scientific method properly displayed on the three panels from left to right.

To the student: Today we will go over how your science fair project should be displayed on your board. Notice that the display board is divided into three sections. The topic should be placed at the top of your center panel.

On the left panel you should place your purpose statement, the hypothesis and the materials used.

On your center panel, under your title, you should arrange the procedure and any pictures, displays (samples of hair, clothing, fingernails, etc.) which help to explain the procedure of your experiment.

On the right panel, your results followed by your conclusion should be arranged in such a way to best attract others to your project.

Purpose	Title	Results
Hypothesis	Pictures	Conclusion
Materials	Procedure	

# Significant Contributors

# **Great Inventors**

# Leonardo da Vinci

Many people consider **Leonardo da Vinci** to be one of the smartest men who ever lived. He was a very talented artist; but what many don't know is that he was also a talented scientist.

It was 1495, in Milan, Italy; Leonardo was working for Duke of Milan as an engineer and an artist. Leonardo did not think of himself as a great man. He mainly invented things to earn a living and keep doing the work that he really loved. Even though Leonardo invented a lot of things, they really only existed on paper. To Leonardo, he invented a devise that lets people fall from a great height without getting hurt.

Today we know this to be a parachute. Then there was his invention of a tank that people could actually breathe underwater, and a ship that can go underneath the water. Today we call these a scuba tank and a submarine. Some other drawings he had were a flying machine, a clock that will wake you up at a time you choose, and a war machine. Today we know these to be a helicopter, an alarm clock and a tank.

Leonardo was unaware of the great inventions he created that today we are so dependent on. Names were later given to his inventions.

## Comprehension Questions

- 1. Do you think Leonardo da Vinci was a humble man?
- 2. What were Leonardo's two professions?
- 3. Name some of his inventions.
- 4. Do you think Leonardo's inventions were things people were using, or did he draw out a plan?
- 5. Can you think of an invention you could draw? Tell what it is and how it works.

### Thomas Edison

**Thomas Edison** set out to become a great businessman. At age 12 he started selling newspapers and food at the train station. By the time he was 15, he had a bunch of other kids working for him.

Since Edison always had a curious mind, at 16 he got a job as a telegraph operator. He got interested in how it worked, because electrical gadgets had always been fascinating to him.

In 1869 Edison invented an electric vote counter. In 1870 he invented a new kind of stock ticker. That's a kind of telegraph that businesses use. It was in 1876 he opened up a laboratory in Mento Park, New Jersey. This is where most of his inventions came about. He tried to record and play back telephone messages, but ended up with the first phonograph in 1877.

This was the forerunner of everything from record players to CD players. He was to invent something that people could always record music. Later, Edison invented a better light bulb that could last longer than any previous ones. It wasn't long before he invented a way to get electricity into names, paving the way for electric lights in every home.

Edison moved to a large lab in Fort Orange. This is where he created his greatest invention ... the *kinetoscope*. We know this to be a movie camera. Right there in Fort Orange, he built the world's first ever studio devoted to filming motion pictures!

### Comprehension Questions:

- 1. What did Edison start out working to be? Why would he have been a good businessman?
- 2. What was the forerunner for the record player and CD player?
- 3. What do we call a kinetoscope today?
- 4. Who do we thank for being able to film movies?

# Fine Arts

# **Great Composers**

**Fre'de'ric Chopin** was a great composer as well as a great pianist. He was born on March 1, 1810, in Warsaw, Poland. As a young boy of eight, Chopin composed a polish dance called Polonaise in G Minor. On February 24, 1818, Chopin gave his first concert at the Radziwill Palace. The audience listened spellbound. He was thought of as a real musical genius. Soon after Fre'de'ric composed a great military march for the Grand Duke Constantine of Poland.

As a man of twenty, Chopin left Poland and moved to France where he remained for the rest of his life. There he continued to compose his greatest masterpieces. Sometimes he would spend six weeks on a single page, only to write it just the way he jotted it down the first time.

In Chopin's short lifetime, he became a great pianist and composer of some of the most important music for the piano including 27 e'tudes, 25 preludes, 19 nocturnes, 52 mazurkas, 4 impromptus, and two piano concertos. Fre'de'ric Chopin died on October 17, 1849 of tuberculosis.

Comprehensive Questions

- 1. Where was Fre'de'ric Chopin born?
- 2. How old was Chopin when he composed his first piece of music? What was the name of it?
- 3. At what age did Chopin leave Poland? Where did he move to?
- 4. How long did Chopin stay in France?
- 5. How old was Chopin when he died?

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**Wolfgang Amadeus Mozart** was born January 27, 1756. His parents had seven children, only two survived past infancy, his sister and Wolfgang. As a baby he would lie in his cradle and listen to his sister's music lessons. He would also listen quietly while his papa practiced the violin. When Mozart was just three years old, he began teaching himself to play the clavier.

Soon Mozart's papa, a talented violinist as well as a composer, became young Mozart's music instructor. Mozart would develop quickly. Papa Mozart knew Wolfgang was making great progress in music, but even he was not fully aware of his son's genius until later. As Papa Mozart gave young Mozart formal violin lessons, he was amazed that Wolfgang had an ability called absolute pitch. Wolfgang's first musical works were composed when he was five years old. They were short pieces for the clavier. Since he was learning how to write, he could not write down all the notes he heard in his head. Papa Mozart would then write what Mozart would play.

As an adult, the music of Wolfgang Amadeus Mozart was extraordinary. He became a great musician and composer. His works include fifteen masses to be sung at church services, and more than a dozen shorter religious compositions. Among his twenty-two operas are some of the finest ever written, such as "The Marriage of Figaro," "The Magic Flute," and "Don Giovanni." Mozart wrote forty-eight symphonies, six full length and three shorter concertos for violin, and twenty-five piano concertos. He also wrote sonatas and concertos for flute, harp, viola, clarinet, bassoon, and many other instruments.

Wolfgang Amadeus Mozart died on December 5, 1791 of damaged kidneys. Although famous, Mozart's music was not often played after his death, because the composer could rarely afford to have his music printed. This meant other later musicians had no sheet music to play from. Almost a century later, Mozart's music was catalogued and published. Today millions of music lovers enjoy Mozart's music.

# Comprehensive Questions

- 1. When did Mozart first hear music?
- 2. How old was Mozart when he began to teach himself music?
- 3. How old was Mozart when he composed his first piece of music?
- 4. What are some of the instruments Mozart could play? Name them.
- 5. Why was Mozart's music not played after his death?

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**Peter Tchaikovsky** was born May 7, 1840. As a child, he quickly showed "strong feeling for music." After playing the piano, he was often too excited to sleep. At age eight his family tried to send him to boarding school but he fell ill and returned home. Tchaikovsky was inspired and motivated with Mozart's opera "Don Giovanni." He thought Mozart was always the greatest composer of all time.

In 1862 Tchaikovsky decided that music would be his career. He became a student at Anton Rubinstein's at St. Petersburg Conservatory, teaching to make money. After he co9mpleted his studies, Anton's brother Nikolay invited Tchaikovsky to come teach at Moscow Conservatory. For twelve years he taught there to make enough money to support his composing.

His first successful score was his "Romeo and Juliet Overture" of 1870. Much of his best work was done for the theatre for operas and ballets. His greatest opera was an adaptation of Pushkin's "Eugene Onegin."

Tchaikovsky was a very sad and depressed man. Although he was a famous composer and his work was very popular, he died on November 6, 1803 of cholera. His home between Moscow and St. Petersburg was turned into a museum to honor him.

### Comprehension Questions

- 1. Who inspired and motivated Tchaikovsky to become a musician?
- 2. How long did it take Tchaikovsky to save enough money to support his composing?
- 3. What was Tchaikovsky's first successful Overture?
- 4. What was Peter Tchaikovsky's home later to become? Why?

Date introduced \_\_\_\_\_\_ Date mastered \_\_\_\_\_

Joseph Haydn aspired to be a great musician, but his family was not able to afford formal lessons. At the young age of six, he went to Hainburg to live with a cousin. There he would be trained in voice and music lessons. His practice began with the violin and clavier. When Joseph was eight years old, he was chosen to sing at St. Stephen's Cathedral in Vienna.

Soon he was composing music in his head. He wanted to write it down, but he didn't know how. When Joseph wrote his parents to explain his dilemma, they did without food for a week to save enough money for two music books. Night after night, Joseph would read as everyone else slept.

Sometime later Joseph received a letter from a prince inviting him to live in his palace at Esterhazy and conduct his orchestra. All the musicians loved Joseph and called him "Papa Haydn." Joseph Haydn wrote 104 symphonies.

# Comprehension Questions

- 1. Why did Joseph have to leave his parents?
- 2. At What age was Joseph formally trained in music?
- 3. How did Joseph begin composing his music? Why didn't he write it down?
- 4. Why did Joseph's parents go without food for a week?
- 5. Who was Joseph Haydn known as?

Date introduced \_\_\_\_\_\_ Date mastered \_\_\_\_\_

# Musical Vocabulary

Opera – a drama wholly sung

Orchestra – a group of players on various musical instruments Symphony – an elaborate musical composition for an orchestra Scale – an ascending or descending series of musical tones

Sonata – a musical composition for one or two instruments

Concerto – a musical composition for an orchestra and usually one solo instrument

Clavier – an early form of the piano

Harpsichord – an early form of the piano that was made of beautifully carved wood

Absolute pitch – a kind of musical memory that makes it possible for a person to be able to identify and recall perfectly the way a note should sound

Etude – a musical composition intended as an exercise in technique, but often of aesthetic value; a study

Prelude – an introductory musical piece

Nocturne – a meditative, pensive musical piece

Mazurka – a lively Polish dance

Impromptu – a musical composition without previous preparation

### **Great Artists**

### Pierre Auguste Renoir

Renoir is one of the world's best loved painters. His paintings were always of people full of joy. He had a special love for people especially women and children, and this shows in his work.

**Pierre Auguste Renoir** was born in Limoges in France in 1841. He was sixth of seven children. Although his mother was a dressmaker and his father a tailor, work was very scarce in Limoges. When Renoir was three years old, his family moved to Paris because work was scarce in Limoges.

At thirteen Renoir left school to help his family. His people found himself a job painting porcelain vases and plates. He was very good. By nineteen Renoir had decided that he wanted to become an artist. He paid his own way to art school.

While studying in Paris, Renoir enjoyed observing other artist working at local museums. Sometimes he enjoyed painting with his friends in the nearby Forest of Fontainebleau. In Fontainebleau, Renoir sometimes stayed with his friend Jules le Coeur. Other times he rented a room at an inn run by a woman called Mother Anthony. Spending time in the forest allowed Renoir to paint landscapes, something he couldn't do in his Paris studio.

Renoir's family was too poor to support him and sometimes it was difficult for him to sell his art. This meant he had to rely on friends for money sometimes. Jules le Coeur was always very generous, but even still he had to go without food sometimes.

Renoir always tried to change and new ways to better his art. He became known as an *Impressionist*. This is when an artist tries to recreate the impression or effect a place or person had on the artist.

By the 1870s, Paris began to change. New buildings began to be put up; train stations were built; street lights installed; and people could afford to enjoy themselves more. You can see the changes in paintings by Renoir. By the time Renoir was in his early 40's, he was able to afford to travel. After many years of poverty, he finally began to sell his paintings.

In 1890, Renoir married Aline Charigot. They had three sons. By 1898 Renoir suffered his first attack of rheumatism. This disease of the bones began to attack the joints in his hands.

The family moved to Cagnes in the south of France where the climate was warmer and better for his illness. In Cagnes, Renoir continued to paint, even when he broke his right arm in a bicycle accident. He painted with his left hand until the right arm healed.

In 1895 Renoir made his first sculptures. Renoir's rheumatism made it more and more difficult for him to walk. Renoir gave up on recovering his strength in his legs and used a wheelchair or was carried from place to place.

After the death of his wife and two sons, he continued to paint pictures of joy, despite his sorrows. Renoir died in 1919. He painted until the end of his life.

## Comprehension Questions

- 1. Did Renoir have much formal education?
- 2. Why did he leave school?
- 3. Where did Renoir study art?
- 4. What kind of artist was Renoir known as?
- 5. Even though Renoir is today known as one of the best loved painters, do you think he made a lot of money on his paintings?
- 6. Pretend you are Renoir; paint a picture of a landscape or a portrait.
- 7. Compare the life of Renoir with Jack Hanna, the zookeeper (see Science / Nature).

Date introduced \_\_\_\_\_ Date mastered \_\_\_\_\_

### Timeline of Pierre Auguste Renoir

- 1841 ... Born in Limoges on February 25.
- 1844 ... The family moves to Paris.
- 1854-58 ... Renoir is apprenticed to a porcelain painter.
- 1862 ... Became a student at the Ecole des Beaux-Arts; Meets Bazille.
- 1865 ... Exhibits two paints at the Salon
- 1869 ... Paints with Monet at La Grenovillere, near Paris.
- 1874 ... Takes part in the first Impressionist Exhibition.
- 1879 ... Portrait of Madame Charpentier and her children is a success at the Salon.
- 1881 ... Travels to Algeria and Italy.
- 1885 ... His first son, Pierre, is born. Paints with Ce'zanne in France.
- 1887 ... Exhibits The Brothers, painted in a new style.
- 1890 ... Marries Aline Charigot.
- 1907 ... Builds a house in South of France.
- 1911 ... Crippled by rheumatism, Renoir begins to make sculptures.
- 1914 ... Pierre and Jean wounded in World War I.
- 1915 ... Aline Renoir dies.
- 1919 ... Finishes The Great Brothers, his last painting. Dies at Cagnes on December 3<sup>rd</sup>.

### Vincent Van Gogh

Vincent Van Gogh was born on March 30, 1853. He was named after his brother that died. He was the eldest of six children. His family lived in a small village of Groot Zundert in the Netherlands.

Vincent's father, Theodorus Van Gogh, was a pastor of a local church. He had a very hard time understanding his son. He attended a local school until age eleven. Vincent loved to just wander the countryside. His parents were concerned about him and sent him to two different boarding schools. He didn't do well at either of them.

After leaving school, he got a job at Goupil Gallery. Vincent did very well at the gallery. After working there for three years, he was promoted to their branch in Brussels, Belgium, and then to London.

At first all went well. Soon he became moody and depressed. His sister went to stay with him for a while, but it did not help. He lost interest in his work and was moved to the Paris branch. After the continued quarreling, the owners told him to leave.

Not knowing what to do, he became an assistant to a Methodist minister. He was becoming more and more concerned with religion. He often wrote his brother, Theo to tell him the happiness he experienced preaching in church.

Upon returning to the Netherlands, he tried to train as a preacher, but because he had to study Latin, Greek and Hebrew languages, he was too impatient. He began preaching in Barinage, a mining district in Belgium. He constantly gave away what little money that had been sent by his family. Dressed in dirty, ragged clothes, and eating next to nothing, he increasingly became worse. Soon he became less and less interested in religion and more interested in famous artists like the great Dutch painter, Rembrandt. Finally, he decided to become a painter. He moved to Etten with his parents. There he spent his time drawing local people and landscapes and experimenting with water color techniques.

Vincent found relationships very difficult to form. He decided it was easier not to than to be rejected. His brother, Theo, continued to take care of him. Vincent's art continued to develop fast.

By the time the nineteenth century in Europe came, there weren't many laws to protect working people. Employers could force men, women and children to work long hours for little pay. In his early years, as a painter, Vincent lived in the country districts of the Netherlands. Many people from the communities had to make a living from what they could grow in the fields. Vincent's art reflected the lives of these people. In his painting he showed how their bodies were stunted and twisted by the hard lives that they led.

Theo continued to try and help and encourage his brother. He sent Vincent enough money to live on, and bought paint and canvasses for him. Theo believed deeply in his brother's talent and went to great lengths to help him develop it. He even tried to help sell his paintings at the gallery where he worked.

Although it remained hard for Vincent to become an artist, he kept trying. He became known as an impressionist. It was not easy for Impressionists to sell their paintings. They often formed a group and put on exhibitions together sharing the costs.

Vincent soon moved back to Paris in March 1886 to live with Theo. Vincent was a very difficult person to get along with. Vincent was not very happy living with other artists. He would get very depressed and return home to argue some more with Theo, or he would bring his friends home to argue with them there.

Despite his constant arguing Vincent's ability as a painter expanded by leaps and bounds. He was painting with oil paints in a wide range of styles. Although, he began to develop techniques of his own and exhibit his pictures in cafés and shops, it is believed that he did not sell any of his paintings.

Vincent became more and more dispirited and anxious, unable to keep friends, he soon didn't have any people to talk to. He soon moved again, this time to a small town in southern France. He was convinced that his life was going to change for the better and that his difficulties would disappear in the warm sunshine. However, when he arrived it was snowing. He decided not to let this discourage him. Here life was very different from the way he lived before.

He was excited about getting started with all the scenery. He wrote his brother, Theo, begging him for large amounts of white and yellow paint. For the first few months he rented a room in a hotel, but he quarreled with the landlord, who thought Vincent should pay more than they had agreed.

He soon found a small house in town where he was able to rent a room. Since it was painted yellow, he called it "The Yellow House." Vincent wanted Paul Gouguin to come and live with him. He believed that would be a step forward for both of them. At first they got along well, but soon they began to argue. One day after a bad fight, Vincent cut off the lower part of his own ear.

It became very clear Vincent was very mentally ill. He was taken to a hospital. Soon it was all around town that Vincent was a lunatic and should be locked up. He spent time in and out of different mental hospitals. Even still he continued to paint. He painted nearly 200 pictures and made over 100 drawings.

Vincent continued to have bouts of illness. He would swallow paints and paraffin oil. Doctors had to always keep an eye on him. Theo soon married and had a son, that he named Vincent after his uncle. When he was released from the hospital he went to live with Theo and his family. For a few days he was happy, but the noise of Paris upset him and he became anxious to move to a quiet place where he could continue to paint.

Vincent never could really regain himself and again live around people. Although he painted everyday, he still was unhappy. On July 22, 1890, after dinner, he was found in his room with a gunshot to his chest. Theo rushed to him, but Vincent died early on July 29. Theo died just six months later.

In 1973, Theo's son, Vincent Van Gogh opened the Rijksmuseum van Gogh in Amsterdam as a monument to the work of one of the most well-known artist of the last century.

### Comprehension Questions

- 1. Who was Vincent Van Gogh named after?
- 2. Where was Vincent's first job?
- 3. In nineteenth century Europe, what detail stood out in Vincent's paintings?
- 4. What was very special about Vincent and Theo's relationship?
- 5. What was disturbing about Vincent and Theo's relationship?
- 6. How would you describe Vincent?
- 7. Did Vincent ever really sell his painting?
- 8. Why did Vincent cut off the lower part of his ear?
- 9. How did other people perceive him?
- 10. Describe how you think Vincent died.
- 11. Since it was not told to us how Theo died, what do you think?

Date Introduced \_\_\_\_\_ Date Mastered \_\_\_\_\_

### Timeline of Vincent Van Gogh's Life

- 1853 ... Vincent is born at Great Zundert in Holland on March 30.
- 1869 ... He starts working as a clerk at Goupil Art Gallery in The Hague.
- 1873 ... He is transferred to London and becomes fluent in English.
- 1874 ... Transferred to Paris
- 1876 ... Dismissed from Goupil's, he takes a job as a teacher in Ramsgate, England, and then as an assistant to a Methodist minister at Isleworth, which is now part of London.
- 1877 ... Returns to Holland to study theology.
- 1880 ... Decides to become an artist
- 1881 ... Becomes obsessed with his cousin Kee Vos-Stricker and later Christian Hoornik
- 1883 ... Lives with his parents at Nuenen near Eindhoven, drawing and painting country life.
- 1886 ... Moves to Paris and lives with his brother Theo. Meets Pissarro, Bernard, Toulouse, Lautrec, and Gauguin.
- 1888 ... Moves to Arles in South of France and devotes himself to painting. Gauguin joins him, but they later quarrel. Vincent cuts off his ear and Gauguin leaves. Vincent enters the hospital suffering from delusions.
- 1889 ... Vincent enters the asylum in St. Remy and continues to paint.
- 1890 ... He moves to Auvers-sur-Oise, a village north of Paris, and shoots himself fatally two months later.

### **Geography Mastery**

#### BASIC FACTS

We live on the planet Earth. Geography is the study of the Ear Geographers are people who stud	
The earth is shaped like a sphere ( It can be divided into two equal ha	like a basketball).
The topmost tip of the Earth is call The bottommost tip of the Earth is The equator is an imaginary line the Pole and the South Pole.	
When we divide the Earth horizon the Northern Hemisphere an	ly, the Earth is divided into the Eastern Hemisphere
The Northern Hemisphere is all the The Southern Hemisphere is all the The Western Hemisphere is the ha America.	e area between the equator and the North Pole. e area between the equator and the South Pole. If of the world that includes <u>North and South</u> f of the world that includes <u>Europe</u> , <u>Asia</u> , <u>Africa</u> .

#### Other important facts about the Earth and the hemispheres

The *diameter* of the Earth, or the distance from side to side through the center, is nearly 8,000 miles.

The circumference of the earth, the distance all the way around the Earth, is about 25,000 miles.

The Eastern Hemisphere has more people than the Western Hemisphere.

#### \*\*\*\*\*\*

Geographers call the largest bodies of water oceans. Geographers call the largest areas of land continents.

#### CONTINENTS

There are seven continents

1. The largest continent is	Asia
2. The second largest continent is	Africa
3. The third largest continent is	North America
4. The fourth largest continent is	South America
5. The fifth largest continent is	Europe
6. The second smallest continent is	Antarctica
7. The smallest continent is	Australia

#### Other important facts about the continents

1. The continent with only one country	Australia
2. The continent with the most people	Asia
3. The most mountainous country	Asia
4. The only continent with no permanent residents	Antarctica
5. The continent with the largest country (Russia)	Asia
6. The continent with the country that has the most people	Asia
7. The continent with the longest river (Nile River)	Africa

#### **OCEANS**

There are *four oceans*. More than 70 percent (70%) of the surface of the earth is covered with water. The oceans, which are the largest bodies of eater, are all connected, forming one vast body of water, which we often call "the sea".

#### THE PACIFIC OCEAN

The Pacific Ocean is the world's largest ocean. It is much larger than all of the Earth's land put together. It covers more than one-third (1/3) of the Earth's surface.

#### THE ATLANTIC OCEAN

The Atlantic Ocean is the saltiest ocean. It is half  $(\frac{1}{2})$  the size of the Pacific Ocean. It separates the American continent from Europe and Africa.

#### THE INDIAN OCEAN

The Indian Ocean is the warmest ocean. It is about one-third (1/3) the size of the Pacific Ocean.

#### THE ARCTIC OCEAN

The Arctic Ocean is the coldest and smallest ocean. The Arctic Ocean surrounds the North Pole. Most of it is frozen all year long.

If we list the oceans from largest to smallest they would be

Pacific Ocean Atlantic Ocean Indian Ocean Arctic Ocean

#### Other important geography facts

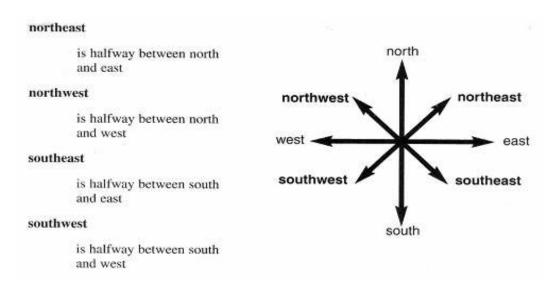
A globe is a map of the world in the shape of a sphere.

An atlas is a book of maps.

A <u>physical map</u> shows the shapes of the land and water areas of the earth (mountains, deserts, rivers, lakes, and other bodies of water) and gives their names.

### **Directions Study Sheet**

We are familiar with the directions, north, south, east, and west, but sometimes people need more directions to find where they want to go. They don't always travel straight north or south, east or west! Here are some more words to help people find their way.



As you can see, the directions words are made by combining the direction words you have already learned. The words have to be combined in a certain way. The words north and south always come first. Point out the direction words that are not combined correctly.

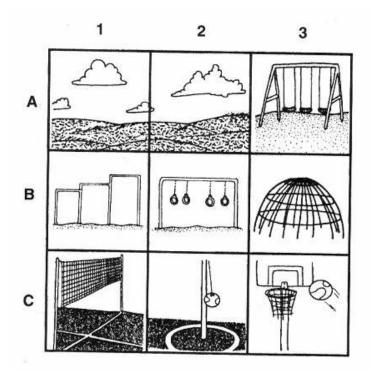
southwest	westnorth
northwest	eastsouth
westsouth	northeast
eastnorth	southeast

### <u>Grids</u>

A grid is a group of lines drawn a special way. This group of lines makes blocks. Numbers and letters are used as markers to guide you to your destination. First you locate the picture location, (place your finger there), then you put your other finger on the letter and slide it horizontally across until your fingers meet.

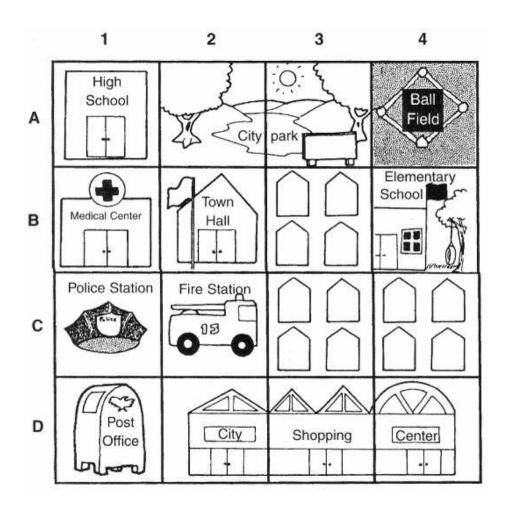
Use this grid to help you answer these questions. Put the letter before the number when you answer.

- 1. In what block are the swings?
- 2. In what block are the bars?
- 3. In what block are the rings?
- 4. In what block is the basketball hoop?
- 5. In what two blocks are the grass fields?
- 6. In what block is the tetherball?
- 7. In what block is the climbing gym?
- 8. In what block is the volleyball net?



### Map grids

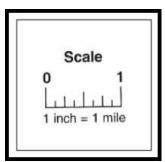
Say the letter before the number of each place you find.



- 1. High School
- 2. Fire Station
- 3. Ball Field
- 4. Town Hall
- 5. City Park \_\_ and \_\_
- 6. City Shopping Center \_\_, \_\_, and \_\_
- 7. Elementary School
- 8. Police Station
- 9. Post Office
- 10. Medical Center

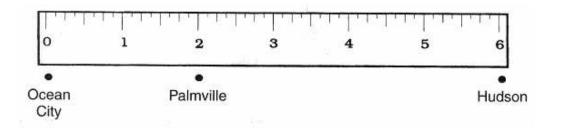
# Reading Map Scales

Mapmakers can make things on a map larger or smaller than they really are. We can do this by using a map scale. This map scale shows us a way to measure distance. We are told by the scale what kind of measurement equals what kind of distance.



Look at this scale: 1 inch stands for 1 mile. If something was 2 miles long it would be shown as 2 inches. If it was 5 miles long, it would be shown as 5 inches.

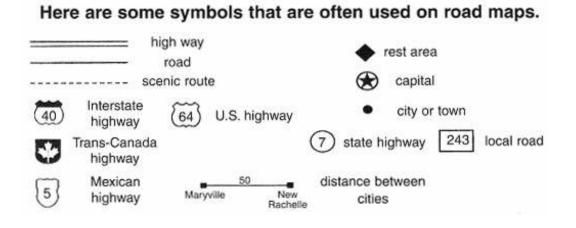
Use the scale on this page to answer these questions about the map below.



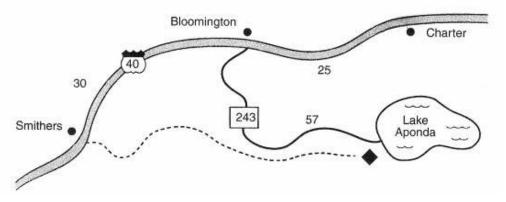
- 1. 1 inch equals how many miles?
- 2. How many inches is it from Ocean City to Palmville?\_ How many miles?
- 3. How many inches is it from Ocean City to Hudson? How many miles?
- 4. How many miles is it from Palmville to Ocean City?
- 5. How many inches is it from Palmville to Hudson? How many miles?

### Road Maps

A road map helps people who drive get from place to place. Road maps show different types of roads, the distance from town, scenic routes, rest areas, and many other things.



Read this map. Then answer the questions at the bottom of the page.



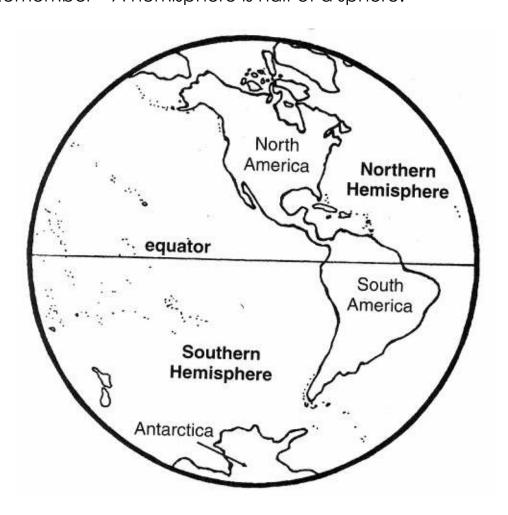
- 1. Interstate Highway 40 passes through what cities?
- 2. What road leads from Bloomington to Lake Aponda?
- 3. How many miles is it from: Bloomington to Charter?

Smithers to Bloomington? Bloomington to Lake Aponda?

- 4. A scenic route leads from the Lake Aponda rest area to what city?
- 5. What does the black colored-in dot mean on the road map?

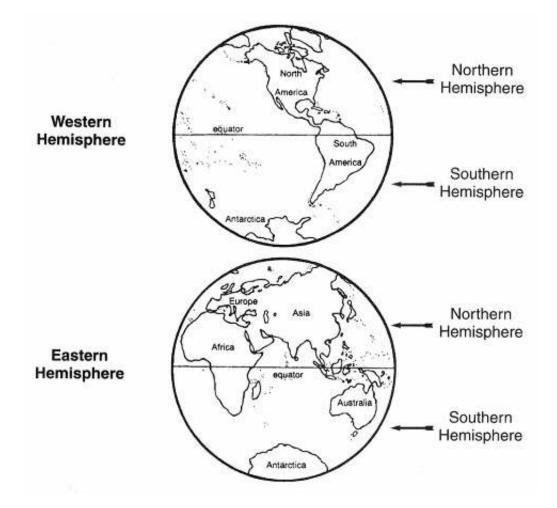
# <u>Globe Study</u>

Since the Earth is divided into two parts by an imaginary line called the equator, the part of the Earth that is south of the equator is called the Southern Hemisphere. The part of the Earth that is north of the equator is called the Northern Hemisphere. Remember – A hemisphere is half of a sphere.



- 1. Point to the equator.
- 2. On this map, which continent is in the Northern Hemisphere?
- 3. On this map, which continent is on both hemispheres?
- 4. What three continents are shown on this map?

### **Hemispheres**

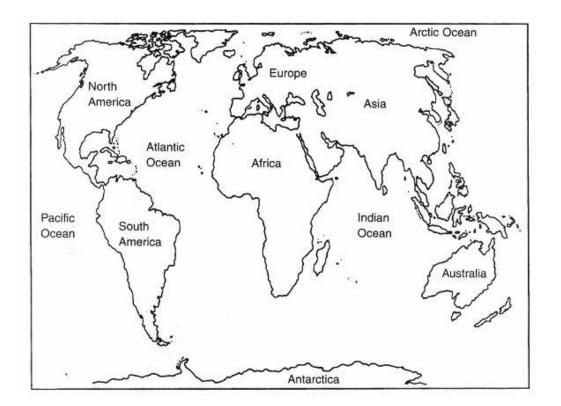


- 1. Antarctica is on what three hemispheres?
- 2. Europe is on what two hemispheres?
- 3. Africa is on what three hemispheres?
- 4. Australia is on what two hemispheres?
- 5. North America is on what two hemispheres?

# Continents and Oceans

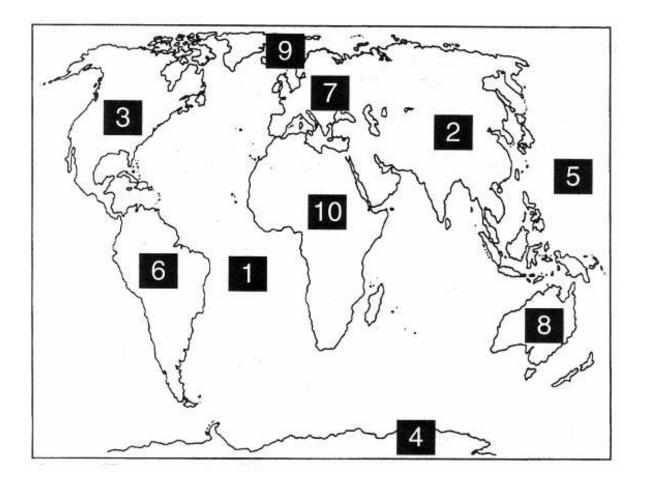
The largest areas of land in the world are called continents. There are seven continents. Point to your continent.

The largest areas of water in the world are called oceans. There are four main oceans. Point to the ocean that is closest to you.



- 1. Name the seven continents.
- 2. Name the four major oceans.
- 3. How many continents begin with the letter A?
- 4. Which two continents have the same last name?
- 5. Which two continents are in the Western hemisphere?

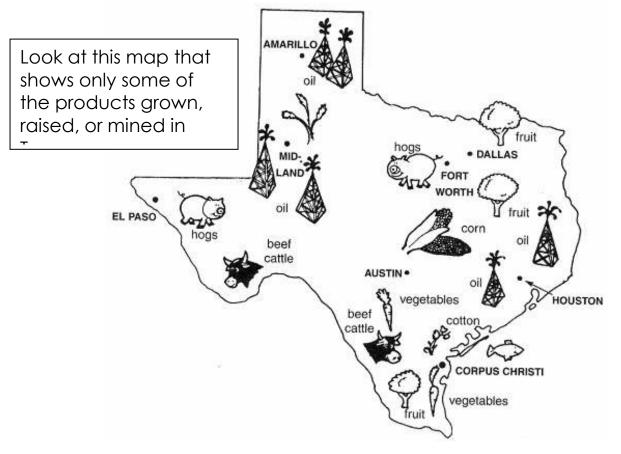
Look at this map of the continents and oceans of the world. If you were an each of the number areas, would you swim or walk?



- 1. If you are on number 6, would you swim or walk? What is number 6?
- 2. If you are on number 9, would you swim or walk? What is number 9?
- 3. If you are on number 2, would you swim or walk? What is number 2?
- 4. If you are on number 3, would you swim or walk? What is number 3?
- 5. Name the largest continent.
- 6. Name the smallest ocean.
- 7. Name the saltiest ocean.
- 8. Name the ocean in which it is too cold for any humans to live.

### Product Maps

Sometimes maps can show us the types of things that are grown, raised, or mined in a certain place. The maps that show us the types of things that are grown, raised, or mined are called product maps.



- 1. What product is drilled from the ground in Texas?
- 2. Name two cities that are near oil production.
- 3. Are things to eat grown south of Corpus Christi?
- 4. What animals are raised near Fort Worth and El Paso?
- 5. Name a product grown near Austin.

More Facts about Texas

Texas is the second largest state in North America.

The capital of Texas is Austin.

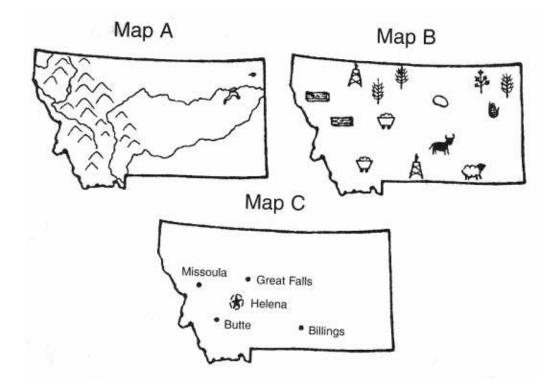
The Alamo took place 1836 in San Antonio.

### <u>Maps</u>

A title tells us what a map is about. Often a title can tell us more about the map. A title can tell us what kind of map it is.

There are many kinds of maps. Here are three of them.

- A physical map tells us something about the shape of the land. It shows where lakes, rivers, mountains, plains and other "nature-made" things are.
- A political map shows us cities, capitals, boundaries and other "human-made" things.
- A product map shows us what kinds of things are made in and grown on the land.



- 1. Which map is a political map of Montana?
- 2. Which map is p product map of Montana?
- 3. Which map is a physical map of Montana?

### Montana Facts

The capital of Montana is Helena. Montana is a Spanish word meaning mountain. Montana is an almost completely rural state. Glacier National Park is in Montana. Great Falls, Bozeman, Butte are cities in Montana. The Missouri River begins in Montana.

Bordering states are North Dakota, South Dakota, Wyoming and Idaho. Canadian provinces are Alberta, Saskatehewan and British Columbia.

Yellowstone, Milk and Powder are rivers in Montana.

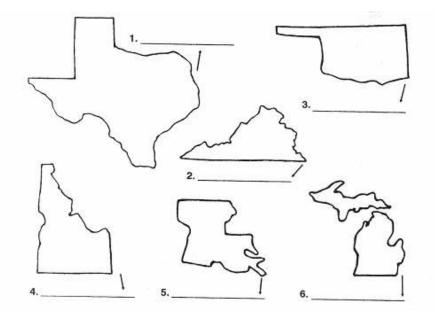
The nation's first congresswoman, Jeanette Rankin, was elected in Montana in 1916. Rankin had worked hard to win suffrage (voting rights) for women, instituted in Montana in 1914. As soon as she got in Congress, she introduced a constitutional amendment to give women the vote nationwide. This became a law in 1920.

### States and Shapes

Write the label of each state under its shape. Use the sentences in the clue box to help you.

# Clue Box Oklahoma looks like it is a pan with a handle. Idaho looks like a chimney. Texas is the largest state on this page. Louisiana looks like a boot. Michigan has two parts that are separated by water. Virginia looks like a mountain range.

Use a map of the United States to help you.



On the following pages are more interesting facts about Oklahoma, Idaho, Texas, Louisiana, Michigan and Virginia. You can expand the student's geographic knowledge by teaching about the major cities, seaports, national parks, capitals, mountain ranges, and more. You may want to use an encyclopedia of the United States to aid in your study. This is optional.

# More Facts about Oklahoma (OK)

The capital of Oklahoma is Oklahoma City. The bordering states are Texas, New Mexico, Colorado, Kansas,

Missouri, and Arkansas.

Lawton, Ponca City and Tulsa are cities in Oklahoma.

Oklahoma once was Indian Territory reserved for Indians only. Oklahoma has the highest number of tornadoes annually and is known. As the oil capital of the world, Oklahoma has more languages spoken there than Europe. That's because that state is home to 55 Indian nations, each with a dialect of its own.

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# More Facts about Idaho(ID)

The capital of Idaho is Boise.

The bordering states are Montana, Wyoming, Utah, Nevada,

Oregon, Washington, and Canadian province – British Columbia.

Lewiston, Twin Falls and Pacatello are cities in Idaho.

The Salmon River in Idaho flows into the Snake River.

Bear Lake is on the border of Idaho.

Craters of the Moon National Park are located here.

Idaho is famous for potatoes.

Sun Valley is the site of America's first ski resort founded in 1935, the first place where ski chairlifts were used. In Southwest Idaho is Shoshone Falls, which are higher than New York's Niagara. Lewis and Clark, land explorers, passed through the northern part of the Idaho "panhandle" in 1805, aided by the Nez Perc'e Indians.

# More Facts about Michigan (MI)

The capital of Michigan is Lansing.

The bordering states and waters are Lake Michigan, Lake Huron, Lake Superior, Wisconsin Indiana, Ohio and Lake Erie.

Grand Rapids, Kalamazoo and Flint are cities in Michigan.

Michigan is known for its split personality because it is created out of two separate peninsulas.

Detroit is the home of Motown (short for motor town), the record label and musical style made popular by Berry Gordy, Jr. Detroit is the leading US automobile manufacturing city.

# More Facts about Texas (TX)

The capital of Texas is Austin.

The bordering states and waters are Arkansas, Louisiana, New Mexico, Oklahoma, Gulf of Mexico, and the Rio Grand.

Waco, Fort Worth, Laredo San Antonio, and Paso are cities in Texas. The country of Mexico borders Texas in the south.

Big Bend National Park is located in Texas. The NASA's Manned Space Center is located in Texas near Houston.

Dwight D. Eisenhower (1890-1969), 34<sup>th</sup> president and Lyndon B. Johnson (1908-1973), 36<sup>th</sup> president were born in Texas.

In 1836, a group of Texas rebels defended the Alamo from the Mexican army. All 188 rebels died, including Davy Crockett. Later the rebellion adopted the battle cry, "Remember the Alamo!" as they won their independence. This took place in San Antonio.

# More Facts about Louisiana (LA)

The capital of Louisiana is Baton Rouge.

The bordering states and waters are Texas, Arkansas, Mississippi, and the Gulf of Mexico.

Lafayette, New Orleans, Shreveport, Alexandria are cities in Louisiana. New Orleans has the second largest seaport in the USA. Louisiana's economy has always depended on the Mississippi River, because of the shipping centers along the famous river.

The New Orleans Mardi Gras features a huge parade with marchers dressed in colorful and outrageous costumes.

New Orleans is also known as the birthplace of jazz.

During the great hurricane Katrina in July 2005, the Mississippi River broke levees in New Orleans, making way for waters to rush in and flood the entire city. This caused great loss and devastation, as thousands of residents were trapped in the city with nowhere to go. As a result many were displaced; some had to relocate, while others died.

# More Facts about Virginia (VA)

The capital of Virginia is Richmond.

The bordering states and waters are West Virginia, North Carolina, Tennessee, Kentucky, Maryland and Atlantic Ocean.

The Potomac River divides Virginia and Maryland.

The Cumberland Gap is a natural passage through Virginia.

Norfolk and Newport News are seaport cities.

Chesapeake Bay is on the east coast of Virginia.

Jamestown was the first permanent English Settlement.

Mt. Vernon, George Washington's home and Shenandoah National Park are in Virginia.

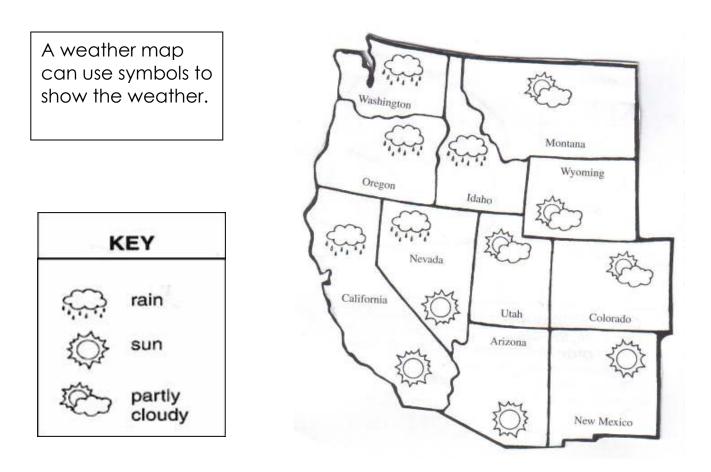
Eight presidents were born in Virginia – George Washington (1732-1799), 1<sup>st</sup> president; Thomas Jefferson (1743-1826), 3<sup>rd</sup> president; James Madison (1751-1836), 4<sup>th</sup> president; James Monroe (1758-1831),

5<sup>th</sup> president; William Henry Harrison (1773-1841), 9<sup>th</sup> president;

John Tyler (1790-1850), 10<sup>th</sup> president; Zachary Taylor (1784-1850), 12<sup>th</sup> president; Woodrow Wilson (1856-1924), 28<sup>th</sup> president.

### Weather Maps

A map can show what the weather of a certain place has been or could be. There are a few different ways to make a weather map.

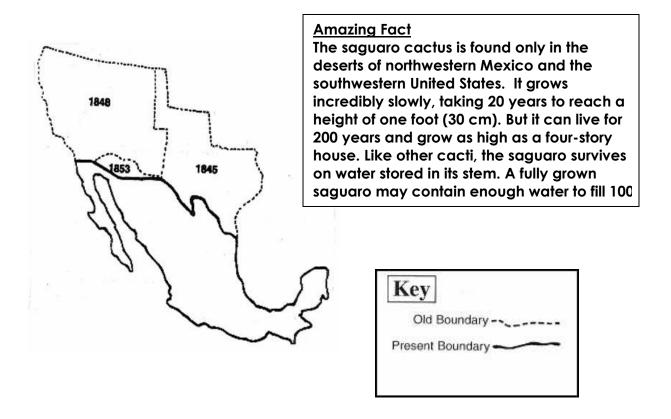


- 1. What states will only have rain?  $\underline{1}$ ,  $\underline{2}$ , and  $\underline{3}$ .
- 2. In what states will the weather be partly cloudy? 1, 2, 3, and 4.
- 3. In what states will the northern part be rainy and the southern part be sunny? <u>1</u> and <u>2</u>.
- 4. What states will only have sun?  $\underline{1}$  and  $\underline{2}$ .

### Mexico Study Sheet

Mexico was not always the size it is today. In the 1800s, Mexico was much larger. But in 1845 and 1848, two parts of Mexico became part of the United States. In 1853 the United States bought a part of México for ten million dollars.

Read this map, looking carefully at the boundary lines.



Mexico is the land between the United States and South America. It is dominated by a large dry plateau; only 18 percent of the land can be farmed. The narrow plains on the east coast are warm and humid, and contain large oil reserves. Three-quarters of Mexicans live in cities and towns, and Mexico City is one of the largest and fastest growing cities in the world. Spain ruled much of Mexico for centuries, and today most of the people speak Spanish. Their ancestors may be settlers from Europe, Native American people or Africans who were first brought to the region as slaves. North America Boundaries



On this map are three of the countries in North America.

- 1. Name the three countries in North America.
- 2. Which country is the closest to the North Pole?
- 3. Which country is the closest to the South Pole?
- 4. Point to your country.
- 5. Which country is the largest?
- 6. Which country is the smallest?

This is the country of Canada. The boundary lines show each of the provinces and territories that make up Canada, Use a map of Canada to help you but mapmaker forgot label the missing provinces: to label all of the Ontario, Alberta, British Columbia provinces. and Quebec. Name the missing provinces where they belong on the map. Yukon Newfoundland Northwest Territory rince Edward Manitoba Island Scotia New Brunswick Saskatc-hewen

More Facts about the Country of Canada Canada is the world's second largest country. Ice hockey is Canada's national sport. The capital of Canada is Ottawa.

# More about Canada

#### Western Canada

Canada covers more than half of North America. Northern Canada is a vast, chilly wilderness where bears fish icy rivers for salmon and wolves hunt caribou across snow-covered plains. Few people live in this cold environment. The Northwest Territories occupy one-third of Canada, but the province's population of 65,800 could be contained in a large sports stadium. Eighty percent of Canada's residents live within 185 miles of the southern border, where the climate is milder and the land is more fertile. The prairie grassland that covers parts of Alberta, Manitoba and Saskatchewan is one of the world's most productive farming regions. These provinces also supply most of Canada's oil and gas.

#### Eastern Canada

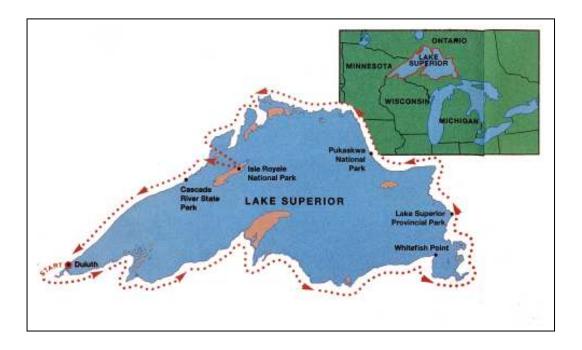
About 60 percent of the population of Canada lives along the shores of the St Lawrence River and the Great Lakes, an area that occupies only 2 percent of the country's land area. From the early 17<sup>th</sup> century onward, European immigrants settled her because the land was fertile and the waterways provided transportation routes. Today the region is home to many of Canada's biggest cities, including the two largest, Toronto and Montreal.

Canada has two main languages – English and French. The majority of French speakers live in the province of Quebec, which was once a French territory.

The climate of eastern Canada ranges from temperate in the south to arctic in the north. For nine months of the year, Hudson Bay remains frozen, allowing polar bears to prowl the packed ice in search of food.

Off Newfoundland's north shore float huge icebergs measuring up to 150 feet high. Farther south, enormous tides surge in and out of the bays. In the Bay of Fundy, the sea can rise 50 feet at high tide – high enough to cover a four-story building!

#### Lake Superior



Lake Superior is the biggest lake in the world. It was created by a glacier a mile thick, which pushed south from Canada. It dug a huge basin that filled up with water when the glacier melted about ten thousand years ago. All the soil was scraped away, leaving behind only hard granite.

On the west side of the lake, the Cascade River plunges over rocky pools before spilling into the lake (Cascade River State Park, Minnesota).

On the northwest side, there are moose as large as horses (Isle Royale National Park, Michigan).

On the northeast side of the lake, there's a trail that runs over some of the oldest and hardest rock on Earth (Pukaskwa National Park, Ontario Canada).

On the east side of the lake, there are rock paintings made by Ojibway Indians. It records a crossing of the lake by about fifty men in four or five canoes.

On the southeast side of the lake, a famous shipwreck happened. In a terrible storm in 1975, a large cargo ship called the Edmund Fitzgerald broke in half and sank to the bottom of the lake.

#### U.S. History

#### **Great Explorers**

#### Juan Sebastian del Cano

Juan Sebastian del Cano was the main navigator during Ferdinand Magellan's trip around the world. He also was the one who lead the expedition back to Europe after Magellan died. He tells that Magellan knew about Columbus' failure; but thought he could make it. Magellan planned to sail around the southern tip of South America, and then continue to Asia by crossing Pacific Ocean. So they sailed out of Portugal in 1519 with 5 ships and over 230 men. Juan Sebastian was the experienced navigator in the crew. There was trouble from the beginning. Magellan decided to take a different route, than the one he told the navigators; they thought they were lost.

After three months of trying to find a way through to the other side, some of the others tried to take control of the ships from Magellan. Magellan did not allow them to take over. After searching almost a year, they found a strait near the tip of South America. It took them four months to cross the Pacific. They ran out of food, and had to eat saw dust, and rats to stay alive. Many men did not make it.

Finally in March of 1521, they found a group of islands. Magellan called the islands the Philippines, after Prince Philip of Spain. They had become the first Europeans to sail west and make it to Asia.

Magellan made friends with a local chief, who convinced him to fight a rival tribe. Magellan being sure that he would win the battle only took 40 men with him. He ended up fighting 3,000 Native Americans. Magellan was killed during the battle. So now the expedition was without a leader. Juan convinced the others to let him lead them because after all he was the navigator of the ships. They were down to two ships and only 47 men of the original crew members.

In late 1521, they headed back to Spain. They sailed through the Indian Ocean, went around the southern tip of Africa, and then up the African coast to Europe. They finally made it back to Spain in September of 1522. Only 18men survived the whole voyage. They were the first people ever to travel all the way around the world.

Although Magellan died in battle and did not make it around the world, the expedition was still his idea to begin with. He received most of the credit for the trip.

#### Comprehension Questions:

- 1. What land did Magellan start out to find?
- 2. Who was the head navigator of the ships?
- 3. How many ships and men did he start out with?
- 4. Explain the length of time it took to finally arrive to the islands.
- 5. What happened to Magellan?
- 6. Why is this Juan Sebastian del Cano's description of what actually took place on this voyage?

#### **Christopher Columbus**

**Christopher Columbus** was born in Genoa, Italy in 1451. He always dreamt of sailing the sea and exploring. In 1492, he got his wish. European countries were looking for a new way to get to Asia. Since the land and roads were so long and dangerous, they wanted to get there by sea.

Marco Polo had inspired Columbus and countless others so much, that they all wanted to go the land of riches. The country that found a new route to Asia would become the most powerful nation in Europe.

Christopher thought he knew the best way to go. He planned to sail to the west and go around the world to Asia. He started out with three ships and 90 sailors. They headed west across the Atlantic Ocean. His crew began to get nervous and worry after they had been at sea for a month without spotting land. Columbus assured them that if they did not see land in three days they would turn back.

In just the nick of time, they found themselves among a large group of islands. Columbus claimed them all for Spain. He was so sure that he had made it to India, that he called the people he met "Indians." Columbus never knew that the land he discovered was not India. In fact he made

three more trips to the islands that were really called the West Indies, which is located in the area we know today to be the Bahamas. That's a group of islands in the Caribbean Sea just southeast of Florida.

The native tribes in the area Columbus discovered, did not like the idea of being ruled by Spain, which brought about many battles. Even though Columbus never found a route by sea to Asia, his voyages ended up changing the world by what he did accidentally find. He brought tobacco, potatoes and pineapples back to Europe. His stumbling upon North America led others to "explore" North America.

#### Comprehension Questions:

- 1. Where was Christopher Columbus born?
- 2. What area did Columbus set out to find?
- 3. What area did he actually find?
- 4. Did Columbus ever realize that he did not find India?
- 5. Why did he give the Indians this name?
- 6. What did Columbus bring back to America?

# <u>Marco Polo</u>

Marco Polo was born on an island called Korcula in 1254. At that time the island was controlled by Venice, which was a powerful trading center. Marco's father and uncle had just left for a trip to the east. They spent many years there, trading and traveling. They ended up going all the way from Venice to China. There they spent most of their time with the Mongol ruler, Kublai Khan.

At that time, most of Asia was controlled by the Mongols. Their great leader Genghis Khan had united a large area under his rule. Kublai Khan, Genghis' grandson met his father and uncle. He had a palace in the city that's called Beijing, China today.

It took Marco's father and uncle three years to get back to Venice. This was in 1269. Soon his father began getting ready for another trip to Asia; Kublai Khan had asked his father and uncle to return. Kublai Khan was very interested in Europeans, since he didn't see them very often. It was a long and dangerous trip for most people. Marco accompanied his father and uncle on this trip. They left Venice in 1271, and make stops in Syria and the city of Jerusalem. Kublai Khan wanted some special holy oil from that city that was said to cure illness.

Next Marco, his father and his uncle went through the area you now know as Turkey, Armenia and Iraq. It was there he saw a thick, black liquid that was very good for burning. Today you know it as oil.

As they traveled, they crossed high mountain ranges in northern Afghanistan; they went right through the Gobi Desert. It is one of the harshest deserts in the world.

Upon arriving in Beijing, Marco saw things he had never seen before, the Chinese had been using paper money for over 1,000 years. Europeans had never seen or heard of such a thing. He tried lots of exotic foods such as ice cream and noodles. Marco, his father and his uncle stayed for almost 20 years. They left in 1292, headed for Venice; once again the two trips took three years.

Marco's great journey inspired many others to follow in his foot steps.

- 1. Where was Marco born?
- 2. What substance did Marco see, while exploring through Turkey, Armenia and Iraq.
- 3. Use a map to track Marco's adventures from Venice to China, Syria, and northern Afghanistan to Beijing.

#### Introduction to the French and Indian War

#### The British Prepare for War

In 1754, Major General Edward Braddock was appointed commanderin-chief of the British army in America. Right after his arrival, two new regiments of soldiers were sent to join him. The British expected that war would break out at any moment.

#### Note:

The conflict would later be known as the Seven Years' War. It was also known as the French and Indian War. This is a misleading name because the French and the Native Americans were allies. The French enjoyed a good relationship with the Native Americans. French men married Native American women and lived much as the Native Americans did. The Native Americans were more willing to help the English. They fought together against the British.

General Braddock had been trained to fight European style. It was different from the Native American style. General Braddock did not respect the Native American ways of fighting. He could not understand hiding behind trees and rocks as a style of military action. George Washington was an aide to General Braddock. Washington already had experience with Native American warfare, but General Braddock refused to listen to him.

General Braddock's opinion was that no Native American could match a British soldier. His army was defeated when they tried to capture Fort Duquesne.

- Who were really at war with each other?
   A. The French and British B. Native Americans and the French C. Native Americans and British
- 2. Did Braddock make light of the Native American's way of warfare?
- 3. Who tried to warn Braddock about the Native Americans

# **General Edward Braddock**

General Braddock was regarded as one of England's best generals. He arrived in Virginia in 1755. Braddock had developed a plan to defeat the French and Native Americans.

Since General Braddock was known as an experienced military leader, he refused to listen to a young officer, George Washington. Washington tried to warn Braddock about the Native Americans fighting style. Braddock was convinced that only the British knew how to conduct a battle or gain a victory. He refused Washington's suggestion to use American rangers who were experienced frontiersmen and were very knowledgeable about fighting Native Americans.

In the Battle of Fort Duquesne, Braddock's army had no chance. The French and Native Americans ambushed Braddock's army. American rangers saved the British from even greater losses. However, it was too late for General Braddock; he died in the battle.

- 1. Do you think General Braddock was a good military leader? Why or why not?
- 2. Should Braddock have listened to George Washington? Why or why not?
- 3. What happened to General Braddock?

# Daniel Boone Builds a Road

# History of Daniel Boone

Thousands of Europeans were arriving in America in 1600s into the 1700s. These people began to fill up the east coast, clearing and forming land between the Atlantic Ocean and the Appalachian Mountains. Few tried to go farther west.

There are two reasons why most people stayed east of the mountains.

1. One reason is that it was against the law to settle on the other side of the Appalachians.

[Note: This law was made in 1763 to keep white settlers and Native Americans apart.]

2. The other reason is that the mountains themselves made western travel difficult.

Any trail across the mountains had to be cut through great forests. In these forests some trees reached heights greater than the average height of a human. In addition, few white settlers had traveled west; so they knew little of that vast, wild region.

The land west of the Appalachians was known as the "back of the beyond."

# Daniel Boone

Daniel Boone was an adventurer. Although he had very little school, he learned everything he could about the world around him. Daniel became an expert hunter as well as an explorer. It was 1769 when Daniel Boone left his wife and children to go on a hunting trip. This trip was different from other trips he had taken, because on this trip he followed Native American trails through the Cumberland Gap. Cumberland Gap is one of just a few natural passageways in the long Appalachian Mountain chain. Daniel used the Cumberland Gap to finally get to Kentucky. Daniel made this trip several more times.

Daniel was hired by a North Carolina judge to build a road to Kentucky. In 1775 he set out with 30 others to start on what was called the Wilderness Road. They cut down trees and cut back undergrowth, slowly clearing a path through the Cumberland Gap. Upon finishing the Wilderness Road, they connected east to west.

The Wilderness Road was a very dangerous trip, because the road itself was perilous. It was a narrow, winding, walking path. Sometimes the path climbed high ridges. Other times it crossed raging waters. In addition, the wolves, panthers, bears, and other wild beasts that filled the forest threatened the small pioneer parties as they traveled through and settled in this untamed land. Even still, the Native Americans were the greatest threat. They often captured and killed any newcomers who were invading their land. Daniel himself had been captured three times. His sons, James and Israel, were killed in conflicts with the Native Americans. Despite the difficulties and dangers of the Wilderness Road, many Americans decided to risk the journey through the Appalachians anyway.

Daniel Boone settled in Kentucky, along with thousands of others. Eventually he found it too crowded. He moved farther west into the scarcely settled land of Missouri. He died there in 1820 at the age of 85.

- 1. What was the name of the Gap Daniel used to get to Kentucky?
- 2. What was the name of the road Daniel started building through the Cumberland Gap?
- 3. Name three reasons why the trip on this road was so dangerous.
- 4. Where did Daniel settle down at?
- 5. Why did he move from this land?
- 6. How do you think he was able to move farther west into the scarcely settled land of Missouri?

# The Lost Colony of Roanoke

#### History of Roanoke

In 1584 England's Queen Elizabeth granted Sir Walter Raleigh the right to build colonies in the New World. He chose Roanoke Island, off the coast of present day North Carolina as the spot for his first colony. He tried two attempts at building a colony on Roanoke Island. The first colony was abandoned. The second was lost.

Many colonists that came to the New World were looking for gold and silver. These colonists were not interested in farming the land, because of the things that did not go well for the first colonists.

The Indians of the region helped the colonist by giving them corn and other foods. Even still, in spite of their generous aid, the colonists fought with the Indians. Because of the fighting, the colonists had to rely only on the small supplies they brought with them. It wasn't long before their supplies were almost gone.

In June the colonists saw English ships approaching. They were hoping it was Sir Walter's ships returning with supplies. To their dismay, it was another explorer, Sir Frances Drake. He was the first Englishman to sail around the world. Sir Frances agreed to take the discouraged colonists back to England. This was the abandonment of Sir Walter Raleigh's first colony.

Sir Walter would not give up on the idea of building a colony at Roanoke. This time he sent men, women and children. He knew if he sent families, they would try hard to make a new life in the New World. It was at Roanoke that Virginia Dare, the first English child in America was born.

John Smith, the leader of the colony, had to return to England for more food and supplies. He promised that he would be back, but before he could send the food and supplies back to Roanoke, war broke out. Spain's navy attacked England's navy, and England need Sir Walter's ships to help in the fight.

England won the battle, but it wasn't until 1590 that John Smith was able to return to America. By the time he returned to Roanoke, not one person remained. The colonists had vanished. No trace could be found of the settlers. The only clue to what happened was that someone had carved the name of a nearby Native American group into a tree: "CROATOAN"

This is John Smith's account in his own words of what he found ...

"We came to the place where I left our colony ... We found the houses taken down ... Closely joined capital letters were carved CROATTOAN ... We found five chests ... three were my own, and about the place many of my things spoiled and broken, and my books torn form the covers, the frames of some of my pictures and maps rotten and spoiled with rain, and my armor almost eaten through with rust."

- 1. What happened that the first colony did not make it at Roanoke?
- 2. Who was Sir Frances Drake?
- 3. Why did Sir Walter send families on the second attempt to the New World?
- 4. What happened that John Smith could not return to Roanoke?
- 5. When did he return?
- 6. What did John Smith find upon returning to Roanoke?

#### <u>Jamestown</u>

#### **Introduction**

Plans were first made in 1578 for the first settlement by Sir Humphrey Gilbert. Two groups of wealthy noblemen and merchants formed the Virginia London Company. They were interested in making money from trade. It was King James, the current king of England, who granted them a charter for land within the region of Virginia in 1606. A second charter was granted to the Plymouth Company and included land farther to the north in what is now New England.

In 1607 three small ships, the Susan Constant, the Godspeed, and the Discovery, arrived at the Virginia shore, after four long months. There were 105 men aboard. The place where they landed was named Jamestown in honor of their king.

#### <u>Jamestown</u>

Jamestown was plagued with problems from the start.

- 1. The colonists spent a lot of time searching for gold and silver.
- 2. The settlers wanted to find the passageway (route) to the Far East.
- 3. Little attention was paid to growing crops.

Poor leadership and disease were already taking a toll. The region was swampy and not well-suited for good drinking water. The settlers were dying. The number of survivors declined to nearly half the original number. The men had really come for adventure or gold, so many did not want to work. Their food supply got smaller as winter approached. To top it off, there were many problems with the Native Americans.

Changes needed to be made quickly, if the colony was to succeed. There was a need for real leadership. Captain John Smith an experienced military man became their leader. He quickly established the rule: "If a person did not work, then he would get no food." He then began to establish a relationship with the Native Americans. Thirdly he had a blockhouse (fort) built for better protection of the settlement. John Smith wasn't very well liked by the other colonists. However, he proved to be a good leader. He kept order in the new colony.

The people worked harder. The London Company sent supplies. Still, it was not enough. In the winter of 1609-1610, many men starved to death. This season became known as the "starving time." Native Americans supplied corn. John Smith ordered the colonists to go out and gather anything that could be eaten. Later he wrote that if he had not forced them to look for food, they would have all starved to death.

Under John Smith, the colony did do a little better, but in spite of all Captain Smith's efforts, it was not enough. A gunpowder explosion injured Captain Smith, and he had to return to England for proper treatment. Without his leadership, the colony was in even more trouble.

- 1. What were the names of the three ships that sailed to America?
- 2. Who was Jamestown named after?
- 3. Name three problems the new settlers had from the very beginning?
- 4. Who became the colonists' new leader?
- 5. Did the colonists like and appreciate him? Why or why not?
- 6. Do you think their leader helped bring the colony together? Why or why not?
- 7. What happened to the colonists' leader?
- 8. What do you think will happen now to the colony? Explain.

#### <u>Jamestown Part I</u>

Jamestown's living conditions had become so bad that the settlers decided to abandon Jamestown. In 1610 an English ship arrived at Jamestown. The settlers boarded the ship and began to sail away. Just as the vessel neared the mouth of Chesapeake Bay, three more English ships were sighted coming to Jamestown. The ship had new supplies and 300 additional men. This gave the colony new hope. The settlers turned around and went back on land.

There were two events that took place after returning to Jamestown that made it better.

- 1. Lord Delaware was made governor of the colony. He proved to be a strong and fair leader.
- 2. Also John Rolfe, who had married the Indian princess, Pocahontas, planted tobacco.

Jamestown now had a crop of value that brought success to the colony. This crop helped Jamestown become a growing, prosperous, and permanent settlement. Tobacco became very popular in England. Colonists now needed land to keep up with the demand for tobacco. The Virginia Colony gave the colonists more land. These large farms were called plantations.

Three important events occurred in 1619.

- 1. First, the Virginia Company authorized settlers to form a general assembly. The committee was known as the House of Burgesses. It met with the governor to make laws for the colony. The settlers chose their own representatives. This was the beginning of a representative government in America.
- 2. The Virginia Company realized many of the men wanted to leave Jamestown after they made their fortune. This would have hurt the

development of the tobacco industry. So as not to lose any money, the Virginia Company brought ninety single women to Jamestown to get married and settle in the new land.

3. The captain of a Dutch ship sold twenty Africans to the colonists. These Africans became slaves to the farmers. The slaves worked in the tobacco fields.

#### **Comprehension Questions**

- 1. What crop was very valuable to Jamestown?
- 2. What two events made Jamestown better?
- 3. What was the land called that the tobacco was planted on
- 4. What three important events occurred in 1619?

#### Captain John Smith

Captain John Smith has been regarded as one of the great heroes of history. As a young man he traveled to France, Italy, and Egypt. He was respected by all his countrymen for his adventures.

Captain Smith returned to England just as the Jamestown expedition was being organized. He was eager to join this adventure. He was made a member of the council that would govern Jamestown.

Even though the Jamestown colony suffered many problems, it was saved from certain disaster by the leadership of Captain John Smith. His strict rules and ability to make friends with the Indians gave the colony new hope. He has been called the "Father of Virginia."

- 1. What countries did John Smith travel through?
- 2. What was John Smith's job to be once in Jamestown?
- 3. What is John Smith known as?

# **Events Leading to the Revolution**

England had spent so much money fighting the French and Indian War that the British were now in debt. The government had to find a way to pay off the debt without over burdening the English taxpayers. In 1764 Parliament, the governing body of England agreed that it had the right to tax colonies. Parliament told the colonists that the money would be used to protect and defend the colonies from their enemies. The colonists disagreed with this policy. They felt like they did not need any help from the English to protect themselves.

Since the colonists were still under British rule, they had no right to object to any of the rules and policies. Nevertheless, this taxation without colonial agreement could not be tolerated. More colonists began speaking out. This began the talk about a war over taxation.

# <u>Event</u>

**The Stamp Act** (1765): When George Grenville became prime minister of England in 1763 he decided it was necessary to get more money form the American colonies. The Stamp Act was passed by Parliament in 1765.

- **The purpose**: to enable the government to tax all legal and business papers used in America. Special stamp agents were appointed to collect taxes.
- **The conflict**: The colonists protested the Stamp Act. They tarred and feathered tax collectors, burned legal papers, and refused to pay the taxes. The colonists even went as far as boycotting all English goods.
- The resolution: Parliament decided to remove the tax in 1766.
- **The aftermath**: The repeal of the Stamp Act pleased the colonists. The good feeling however, did not last long. King George III and his ministers did not intend to stop taxing the colonies.

# <u>Event</u>

**The Townshend Acts**: Charles Townshend was appointed to the position of minister of finance in England. His job was to get the money necessary to run the British government. Other than a source of money, he had very little interest in the colonies. His job was to run the British government at all cost.

Townshend was responsible for the Townshend Acts which were passed in 1767.

- **The purpose**: to get the necessary money to run the British government.
- **The conflict**: These Acts took away the colonists' freedom to govern themselves. New taxes were placed on many items important to the colonists. Protests became even stronger than before.
- **The resolution**: The colonists agreed to boycott English goods. The boycott not only hurt the English but also caused serious problems for the colonial merchants.
- **The aftermath**: Trade slowed down considerably. Many people were out of work in the American ports where trade was important. As it became harder and harder to make a living, tempers were beginning to grow short. The people of Boston were starting to organize protests against the English.

# <u>Event</u>

# Quartering Act: 1765

• **The purpose**: for England not to pay for the expenses of the British army.

- **The conflict**: The colonists were required to provide food, housing, and supplies for British soldiers.
- **The resolution**: Although colonists were angered at having to obey a law they had not voted for, they obeyed it.
- **The aftermath**: The act was not repealed. The colonists were building up more resentment toward England.

The news traveled through New England very fast where the towns were close together. Boston, the largest city in New England, soon became the center of action against this new English taxation policy. Town meetings were held. People spoke out against English control. The British in turn looked upon Boston as a problem town. Soldiers were placed at street corners to watch for troublemakers. British soldiers and the people of Boston did not get along very well. Tension built with so many soldiers in the city.

# <u>Event</u>

#### The Boston Massacre

One evening early in March of 1770, a crowd gathered near a group of British soldiers. There are several different accounts of what took place.

- 1. One account is that some boys began throwing snowballs at a British sentry. A mob of people with stones and clubs gathered and threatened the other British soldiers.
- 2. Another account is that the colonists were just gathered together near the British soldiers ...

Records of the incident state that a round of shots was fired into the crowd.

- **The purpose**: British soldiers placed in Boston to watch for troublemakers in the streets of Boston.
- **The conflict**: Colonists were unhappy at having British soldiers watching them as if they were the problem. After the round of shots was fired, Crispus Attucks, an African-American and a few other colonists were killed. Several others were wounded.
- **The resolution**: The governor of Boston agreed to remove the soldiers to prevent more trouble.
- **The aftermath**: News of the Massacre spread throughout the colonies. The people of Boston demanded the British soldiers be removed from the city.

The colonies continued to lose their freedom. English governors, chosen by the kin, could do as they pleased. They became very strict. Samuel Adams of Massachusetts decided the colonial leaders could meet. They were to develop a plan to give the colonies power to protect themselves from the harsh British laws.

King George III, nor the Parliament took the colonists seriously. The king thought the colonists were weak and helpless. Parliament thought the colonies were no match for the mighty British army and navy. The king was sure that because he was the most powerful country on earth, the colonies would obey his laws.

#### The East India Trading Company

England had chartered a company far away in India. The East India Trading Company, as it was known, was in the business of selling tea. The Company was required to pay a tax to England on the tea before shipping it to other places. The Trading Company could not afford to pay the tax. The Company would be ruined if it did not sell the tea. England's prime minister, Lord Frederick North came up with a plan. He wanted to ship the tea to America. The colonists would then have to pay duty on the tea. Lord North expected his plan to accomplish three things:

- 1. Save the East India Trading Company from financial disaster;
- 2. Allow England to get rid of the stored tea;
- 3. Bring in more revenue for England.

The king agreed to this clever scheme.

The colonists were opposed to paying a tax on tea. Samuel Adams organized the tea merchants who agreed to cancel all orders for tea. The colonists wanted to keep the tea from being unloaded to ensure that no tax would be paid.

Lord North and the King had clearly underestimated the strong feelings of the colonists. They felt that the small tax on tea would not cause a problem. Actually The East India tea was cheaper than the tea normally sold in the colonies even with the tax. Adams made it clear that the colonists would not accept a tax imposed without colonial consent.

# Event:

**The Boston Tea Party**: In 1773, a ship carrying tea arrived in Boston's harbor in early December. The English governor of Boston was determined to have the tea unloaded and collect the taxes.

Adams was equally determined to keep the tea from being unloaded. A group of colonists dressed as Mohawks boarded the ship on the night of December 16, 1773. They promised not to harm the ship if the cargo was made available to them. The captain agreed and the Boston Tea Party began.

- The purpose: ultimately to bring in more revenue for England
- The conflict: Colonists refused to pay taxes on tea.
- **The resolution**: Over three hundred chests of tea were dumped into the harbor. A large crowd gathered to watch. The crowd was sure that no spies were close at hand to observe the "party." The band of colonists left the ship when all of the tea was dumped. They did not harm the vessel.
- **The aftermath**: George III was very unhappy when he heard about the tea party. The king would have to punish the colonists for breaking the law and teach them a lesson. Not all colonists agreed with the actions taken in Boston's harbor. They felt it was to be destructive and some merchants even offered to pay for the tea that had been destroyed.

# <u>Event</u>

**The Intolerable Acts** were passed in 1774. These Acts prohibited ships from sailing in or out of the Boston Harbor; increased the powers of the king and the royal governor; attempted to remove Massachusetts power to govern itself by preventing town meetings; and established the Quebec Act which allowed... the Canadian province of Quebec to extend its boundaries into the Ohio Valley which closed the colonists in tightly.

- The purpose: to teach the colonists a lesson
- **The conflict**: The British intended to test the will and determination of the colonists to govern themselves.
- **The resolution**: England closed the port of Boston to all trade, banned town meetings, had British soldiers accused of any unlawful act tried in England.
- The aftermath: Boston was shut down completely.

# Summary

When the colonies started to prosper, Britain began to notice them. Britain had fought several costly wars and needed money. To raise money, the British government increased its control over the colonies, demanding colonists pay tax money to Britain. The events leading to the Revolution caused many colonists to rebel against British rule. Colonists wanted a complete change in government: A Revolution!

- 1. If you were a colonist, how do you think these events would have made you feel?
- 2. Even though the tea in the colonies was more expensive than the tea from the East India Company, the colonists did not want to pay the tax. For the colonists, it was the principle of the matter. The British had considered the colonies weak, and disregarded them. Whenever the British were in need of money, they expected the colonies to raise money to bail them out of their debt. The Boston Tea Party was a way for the colonists to take a stand in saying no! Knowing this, do you think you would have participated in the Boston Tea Party? Explain why or why not? [Remember there were many injustices done to the colonists before this.]
- 3. The punishment for the Boston Tea Party resulted in the Intolerable Acts and the Quebec Act. What were these acts? Do you think the consequences fit the action?
- 4. Why was the Boston Harbor so important to the colonists?
- 5. Explain how the Quartering Act would make you feel.
- 6. Use the Headline worksheet to complete this. Imagine you are a British newspaper reporter in 1773. Write the article from the British point of view. Write your own title or headline. A news article answers who, what, where, when, and why.
- 7. Complete the History Events Chart, leading up to the Revolution.
- 8. Do you think that it would take a war to change the conditions of the colonies?
- 9. Write a short paragraph of how you would sum up the way the British treated the colonists.
- 10. Form your own timeline on the Events Leading Up to the Revolution.

#### Paul Revere

During the 1770s, the American colonies were starting to get tired of being ruled by England. The taxation rules and policies were unfair to the colonies, since thyme didn't get to vote on them. This was known as taxation without representation. England explained that the taxes were to pay for the defense of the colonies during the French and Indian War that had just ended, but the colonists did not think this was fair. Soon many colonists wanted to do away with British rule altogether.

Paul Revere was a famous American patriot and hero. He was part of a group called the Sons of Liberty. Its leader was Samuel Adams, a Boston politician. The Sons of Liberty were the ones responsible for the Boston Tea Party in 1773. By 1774, it was obvious that the English were planning a big crackdown on the patriot movement. Because of this, most of the leaders went into hiding, including Samuel Adams and rich businessman, John Hancock. They hid in the small town of Lexington, Massachusetts, at the home of Reverend Jonas Clarke.

On April 18, 1775, Dr. Joseph Warren got word that the English were planning to march to Lexington to arrest Hancock and Adams. Dr. Warren actually sent Paul Revere to Lexington to warn the men. Dr. Warren rode his horse stopping a few times along the way to warn local patriot leaders. They in turn sent word to people in neighboring towns. Among Revere and others, they alerted many people between Boston and Lexington of the coming danger. Dr. Warren sent for Paul and told him that he had sent William Dawes to Lexington on a lengthy land route, and he was sending Paul to cross Charles River, then ride up to Lexington by a shorter route. That way if one of them got captured the message would still get through.

As Hancock and Adams were getting ready to flee, they talked about the large British force that was coming. They figured that they wouldn't need so many troops just to arrest two men. They must have another mission. The British were also going to Concord to capture a stash of weapons and ammunition that the patriots had hidden there.

Now Paul had to warn the people of Concord. Paul Revere, William Dawes, and Dr. Samuel Prescott, another member of the Sons of Liberty

were captured in an ambush. While the other two men were able to escape, Revere wasn't. They took him prisoner and led him back to Lexington. Along the way they asked a lot of questions about what he was doing. He told them he had been alerting the people of the countryside that troops were on there way. He exaggerated the number of patriots they had on their side, hoping to scare them. He told them that the troops were walking right into a giant ambush.

As Revere and the troops approached Lexington they heard gunfire. Local people were firing guns into the air and ringing church bells to alert one another to the situation. When the British troops heard the commotion, they thought that Paul had been telling the truth, and began to get scared. They took off and left Paul with a horse. Meanwhile, it was actually Dr. Prescott who ended up warning the people of Concord. Paul made it back to Lexington in time to help Hancock and Adams with their escape. Paul went back to retrieve some important papers Hancock had left behind. He got the documents and left town just in time to see local patriots assembling to meet the British. As he left this time, he heard the first gunshots of the Revolutionary War.

Note: Paul Revere, William Dawes and Dr. Samuel Prescott were all responsible for warning the Patriots of the attack. Revere's side of the story has been the one that has been past down in history. Henry Wadsworth Longfellow, the famous poet, wrote "The Midnight Ride of Paul Revere." It was Longfellow who decided to leave Dawes and Prescott out of the story.

- 1. Who was Paul Revere?
- 2. What was the name of the group Paul belonged to?
- 3. Who was the leader of this group?
- 4. Who were the men that were sent out to warn Hancock and Adams the British were coming?
- 5. Who got the credit for the warning?
- 6. What was the name of the poem that told the story?

# African-American History

# Benjamin Banneker 1737-1806

As a child, while other children played, Benjamin Banneker preferred to read books. This is because he was a very curious child.

Benjamin loved math. It was like a puzzle to him. While still young, Benjamin made a large clock, to look like a watch that someone loaned to him. This clock kept perfect time for over 40 years.

Years later Benjamin taught himself all about the stars with a telescope and some books about astronomy he borrowed. It wasn't long before he taught himself enough to publish an almanac. Benjamin's almanac was a book that contained weather information, home remedies, poems, and anti-slavery essays. Scientists all over the world learned from his almanac.

As Benjamin grew older, his thirst for learning continued to grow. He began studying surveying. Surveying is measuring the land. He became such a respected surveyor that President George Washington petitioned him to help plan our nation's capital, Washington, DC. Benjamin Banneker was respected as a great man. A postage stamp was created in 1980 to honor him.

# Comprehension Questions

- 1. What did Benjamin enjoy doing as a boy, while other children were playing?
- 2. On a sheet of paper, write a short paragraph about Benjamin Banneker's main achievements.
- 3. Explain what an almanac is?
- 4. If you were a surveyor, how would you measure your room? Try it.

# Vocabulary

Almanac – an annual publication containing an assortment of data, including weather and astronomical information

Slavery – the condition of being owned by and forced to work for another person

#### Sojourner Truth 1791-1883

In 1797 a baby slave girl was born on a plantation in New York. Her slave master named her Isabella Baumfree. Later, when she grew up, she escaped from slavery. She changed her name to Sojourner Truth. She wanted to speak out and tell everyone about the evils of slavery.

Sojourner had a very strong powerful voice. She became a very good speaker. Even though she could not read or write, she became a famous speaker. No matter where she spoke, crowds gathered to listen to her. Sojourner spoke all over the North about abolishing (ending) slavery. She spoke up and out about how bad slave owners treated their slaves. She also became a spokeswoman for women's rights. She believed that a woman could do a job just as well as a man. Sojourner gave her famous speech i8n 1851, called "Ain't I a Woman." As she showed her muscles in her arm, she said "I have plowed, planted, and no man could head me. And ain't I a woman?"

Sojourned Truth continued to speak out for the freedom of slaves. Slavery was finally outlawed when the Thirteenth Amendment to the Constitution became a law in 1860.

# Comprehension Questions

- 1. What was Sojourner's birth name?
- 2. Why do you think Sojourner couldn't read or write?
- 3. What does the word abolish mean?
- 4. Why do you think it was important for Sojourner to speak out for women's rights?
- 5. What was the name of Sojourner's famous speech?
- 6. On a sheet of paper, write a short paragraph on Sojourner's beliefs about slavery and a short paragraph about her beliefs about women.
- 7. When was slavery outlawed?

# Vocabulary

Slavery – the condition of being owned by and forced to work for another person

Amendment – a change made to an existing law

Freedom – the liberty or power to do, say, or think as one pleases

Plantation – a large farm on which crops are grown and cared for by slaves who also live on the farm

#### Frederick Douglass 1818-1895

Frederick Douglass was born a slave. He found life as a slave unbearable. He often did not receive enough food. As a servant for a family in Maryland he was taught to read and write. When Frederick realized he was smart and no different from any other person, he wanted to escape slavery.

Frederick did escape to New York in 1838. There, because he had been a slave, Frederick was asked to speak at meetings of the Anti-Slavery Society. He became such a great strong leader and excellent speaker that people wondered if Frederick had ever really been a slave. He seemed so well educated. To prove himself, he decided to write a book about his life. He also used his writing talents to start a newspaper called the North Star.

During the Civil War, he encouraged black people to fight for the North. Thousands of African Americans became soldiers in the Union Army. In 1863 President Abraham Lincoln invited Frederick to signing of the Emancipation Proclamation. He was soon made a US Marshal and was an advisor to five presidents.

Near the end of his life, he became the first African American to be named as a candidate for president of the United States.

# Comprehension Questions

- 1. On a sheet of paper, write about the important events in Frederick Douglass' life. Start at 1818 and then 1838, up to 1863.
- 2. Out of all of Frederick's accomplishments, which one impresses you the most?
- 3. Investigate what the Emancipation Proclamation is?

#### Vocabulary

Candidate – a person who wants to hold an office or honor Emancipation Proclamation – a document signed by United States President Abraham Lincoln that freed many of the slaves Slavery – the condition of being owned by and forced to work for another person

# Harriet Tubman 1820-1913

Harriet became known as Moses of Her People. Born in Maryland as a slave, Harriet Tubman was often beaten. This made her childhood awfully hard. She worked hard in the hot sun every day. This made her very strong. During the night, she planned how she would use the North Star to guide her to freedom.

In 1849 Harriet escaped. Even though she escaped, she still was very unhappy, because she had left her parents and other slaves behind. Harriet followed a secret escape route called the Underground Railroad to help other slaves escape. The Underground Railroad was not a real railroad with trains, but it was a series of "stations" or safe places where slaves hid on their difficult journey north.

Harriet had to be very careful. She often traveled along at night. She learned how to outsmart her slave trackers, by confusing their dogs' path with red pepper. There were times she even had to use force to keep frighten runaways from turning back. Harriet traveled back 19 times to help other slaves escape. She helped lead over 300 slaves to freedom.

Harriet Tubman continued her plight. During the Civil War, she served with the Union Army. First she was a nurse and then a spy. Harriet Tubman had dedicated her life to help liberate the slaves. After her death in 1913, she received full military honors for her courage and service. Comprehension Questions

- 1. What did Harriet plan that would help guide her to freedom?
- 2. Why do you think Harriet became known as the Moses of Her People? Explain your answer in detail.
- 3. What was the Underground Railroad? Explain how it worked.
- 4. How many times did Harriet return to the South to help other slaves escape? How many slaves did she help?
- 5. What is a spy?
- 6. Think about the qualities that helped Harriet lead her people to freedom. On a sheet of paper, write how you believe she was courageous, intelligent, and caring.

# Vocabulary

Underground Railroad – a system set up by people who helped runaway slaves in the South reach freedom in the North.

#### Nat Turner Slave Revolt 1831

Many slaves wanted to escape slavery so bad that planned to kill their masters. These were called slave revolts. They would risk their lives for the sake of freedom.

Nat Turner was the son of an African born slave in Virginia. He was very bright as a child and always had a vision of being free. As a man Nat became a successful preacher. He came to believe that he was meant to take up arms against slave owners and to free his people. He decided to act on his beliefs. Carefully and quietly he planned his attack. No one turned him in or revealed his plans.

On August 21, 1831 Nat Turner and a group of slaves armed themselves with hatchets. They planned to murder slave masters. In less than two days, they had killed more than 55 people. They even killed the slave master's families. If they had not been captured, they were ready to kill more. Nat and his followers were hanged. Many slave masters live in constant fear after Nat Turner's revolt.

#### Comprehension Questions

- 1. What state was Nat Turner born in?
- 2. In paragraph two of the story, what do you think it means "to take up arms against slave owners?"
- 3. On a sheet of paper, explain what you think the word "revolt" means.
- 4. Even though Nat and other slaves wanted to be free, do you think they should have done it this way?

#### Vocabulary

Revolt – an uprising or an act of rebellion against authority

#### Dr. Daniel Hale Williams 1856-1931

Dr Daniel Hale Williams was a brilliant doctor. He graduated from Chicago Medical College in 1883. In 1891 he founded the Provident Hospital in Chicago. It was the first black owned and black-operated hospital in the United States. It was also the first hospital to care for both blacks and whites. Dr Williams also started the first school for black nurses in the United States.

Dr Daniel Hale Williams in many ways can be remembered as a doctor of many firsts. On July 10, 1893 Williams performed a daring surgery at Provident Hospital. At that time, no other doctor had ever tried to operate on the human heart. Dr Williams could loose his medical license and his hospitable force to close if he failed. Everyone thought he was taking a big risk, but he was sure he would succeed.

Dr Williams cut open the patient's chest and sewed up a tear in the heart. The operation was such a success that the patient survived and soon returned to work. To everyone's amazement, the patient lived another 20 years!

Dr Williams continued to make medical history. All over the world, scientist and doctors read of his amazing operation. His early work in medicine helped make possible many of the heart transplants performed today.

- 1. Where did Dr Williams attend college?
- 2. On a sheet of paper, write three paragraphs about Dr Williams' achievements. Explain the results of each achievement. Each paragraph should start with his achievement and end with the result.
- 3. Explain why Dr Williams can be remembered as a doctor of firsts.
- 4. Is it possible for you to become a Dr Williams? Why or why not?

# Emancipation Proclamation and the 13<sup>th</sup>, 14<sup>th</sup>, and 15<sup>th</sup> Amendments

On New Year's Day, Thursday, January 1, 1863, President Abraham Lincoln had a meeting to attend. This meeting took place in Washington DC. President Lincoln had important papers to sign at this meeting. These papers were called the Emancipation Proclamation. This was a legal paper that would free slaves in all the states that were fighting against the North in the Civil War.

Since 1861 America had been at battle in the Civil War. Many men had already died fighting. The war must end. Just before President Lincoln dipped his pen into the ink, he said, "I have never in my life felt more certain that I was doing right than I do in signing this paper."

As the news of the president's action spread across the land, people in the northern cities sang songs, marched in parades and listened to speeches. Slaves in the South celebrated with great joy. The struggle for freedom had finally been won!

Even though the Civil War was over, blacks still had no rights. They deserved to be treated the same as any other citizen of the United States. Congress passed three amendments to the Constitution that helped blacks receive the same rights as others.

The first was the Thirteenth Amendment, which was passed in 1865. This amendment said that ... **there could be no slavery in the United States**. It set all slaves in the United States free.

Three years later, Congress passed the Fourteenth Amendment. It said ... all Black people were US citizens and gave them equal rights.

In 1870 Congress passed another amendment, the Fifteenth Amendment. It said that ... all Black men had the right to vote. It said that ... all people have the right to vote no matter what race or color they are.

# Comprehension Questions

- 1. What is the Civil War?
- 2. Which president signed the Emancipation Proclamation?
- 3. What is the Constitution?
- 4. On a sheet of paper, list what the Emancipation Proclamation say and why was it important? Write one sentence to tell why each of the following amendments, 13<sup>th</sup>, 14<sup>th</sup>, and 15<sup>th</sup>, is important?
- 5. How do you think Blacks felt about the changes made in the Constitution by the amendments? How do they make you feel?

# Vocabulary

Amendment – a change made to an existing law

Civil War – the war between the North (the Union) and the South (the Confederacy) in the United States between 1861 and 1865 Constitution – the written set of basic principles that govern the United

States Emancination Proclamation – a document signed by United States

Emancipation Proclamation – a document signed by United States President Abraham Lincoln that freed many of the slaves

Freedom – the liberty or power to do, say, or think as one pleases

### George Washington Carver 1864-1943

George Washington Carver's ideas helped to improve the quality of life for millions of Americans. George was born a slave during the Civil War. As he grew older, he was very much interested in science and art. He attended Iowa Agricultural College to study science.

George became best known for his work in farming. After finishing his education, he decided to use his knowledge to help farmers in the South. He moved to Tuskegee, Alabama to work as a teacher at the Tuskegee Institute of Technology.

Southern farmers had only grown cotton for nearly 200 years. This was because the soil was weak. Carver discovered that the way to make the soil better was to grow different crops each year. This method is called crop rotation.

Carver convinced farmers to grow peanuts one year, sweet potatoes the next, and soybeans after that. The success of this method soon meant farmers were producing big, healthy crops year after year.

George became famous around the world for his creative ideas. He discovered 300 uses for peanuts and 100 uses for sweet potatoes. Due to his hard work, in 1943 President Franklin D Roosevelt had a statue made in Dr Carver's honor. It was the first national monument dedicated to an African American in US history.

- 1. If Carver was born a slave, how did he become a free man?
- 2. What college did Carver attend?
- 3. Look up the word <u>agricultural</u> and tell what it means.
- 4. What was the name of the method Carver used for the weak soil?
- 5. Do you think the farmers appreciated Carver's knowledge about the soil? Why?

### Madam C.J. Walker 1867-1919

Madam CJ Walker's name at birth was Sarah Breedlove. She grew up poor and with very little education. After marrying very young and having a daughter, her husband died. With no way to support herself and her daughter, Sarah worked washing other people's clothes.

Later Sarah married a man named Charles Walker. She changed her name to Madam CJ Walker. She had an idea that she could start her own business selling hair care products. After creating a special hair treatment for African-American women, she decided to sell her products door to door. This became known as the "Walker Method." Almost overnight she found herself in business, with assistants, schools, and a manufacturing company.

Madam CJ became one of the first American women to become a millionaire. She was very generous with her money, giving to many black causes. She gave to the Frederick Douglass Museum and the National Association for the Advancement of Colored People (NAACP).

Madam CJ often said, "I got my start by giving myself a start." She became one of the most successful business people of her time.

- 1. On a sheet of paper, describe in a short paragraph the beginning of Madam CJ's life. Describe in a short paragraph the end of Madam CJ's life.
- 2. Madam CJ Walker said, "I got my start by giving myself a start." What do you think this quote means?
- 3. Name three goals you want to accomplish and how you might do it.

## Paul Laurence Dunbar 1872-1906

Paul's parents were ex-slaves. His father fought for the Union during the Civil War. His mother, Matilda, taught him to love music and storytelling. Paul loved to read and write poetry. Paul was the only African-American in his high school; even so he became a school leader. He also wrote for his town newspaper.

In 1892 Paul gave the welcoming address to the Western Association of Writers, his first public poetry reading. The writers were impressed with his poems and began to tell others about him. Paul was encouraged so much; he decided to publish a book of poems, <u>Oak and Ivy</u>, in 1892.

Paul was invited to recite poetry at the World's Fair in Chicago. It was there that the met Frederick Douglass, who called him "the most promising young colored man in America."

Paul Dunbar was the first African-American poet to be known all over the country. His poetry speaks of the hardships of his people and their struggle for equality. His writings were not only popular with blacks, but also with white readers. His most popular poems use dialect and stories about blacks with simple lives.

Paul Dunbar died young at the age of 33. He was praised by important writers of his day. He left great poetry for future generations to enjoy.

### **Comprehension Questions**

- 1. What do you think inspired Paul to love poetry?
- 2. What was the name of Paul's first book of poems?
- 3. Are there any similarities between Paul's life and Frederick Douglass' life?
- 4. Look up one of Paul Dunbar's poems and recite it.
- 5. Make up your own poem.

## Vocabulary

Equality – the condition of having the same social, political, or economic rights

#### Carter G Woodson 1875-1950

Carter G Woodson was known as the Father of Black History. Since for many years, the history of African-Americans was not recorded in school books, he was determined to make the facts known.

Growing up the oldest of nine children to a very poor family, Carter helped his family by working in the coal mines near his home in Virginia. Carter had a great desire to learn and taught himself to read and write. He worked so hard that he completed high school, while working, in a year and a half. He became known for his sharp mind.

After college, Carter traveled to the Philippines, where he became a supervisor of schools for six years. When he moved back to the United States, Carter moved to Washington, DC and became a school principal.

Carter realized that black American history and culture was not in the textbooks he read. He knew that someone had to write about his people's history and teach it to others. It became his dream that "young blacks would grow up with a firm knowledge of their ancestors."

Black children today have the privilege to open textbooks and see and read about their African-American culture, because Dr Carter G Woodson dedicated his life to recording it. In 1926 he started the first Negro History Week. Today we celebrate this as Black History Month. It is recognized and honored every February each year.

#### **Comprehension Questions**

Certain conditions in Carter Woodson's life brought about certain effects. For each cause, write about the effects on Carter Woodson's life and attitude.

1. Cause # 1 His family was poor.	Effect # 1
Cause # 2 He had a great desire to learn	Effect # 2
Cause # 3	Effect # 3

He discovered that most history books did not include Black history.

2. Do you think you could teach yourself to read and write? Explain how or why not?

3. Do you think it is very important to never let a Black History Month come and go without acknowledging it in some way?

4. Take a trip to the Woodson Library to study more about Carter Woodson's life.

### Mary McLeod Bethune 1875-1955

Mary McLeod Bethune, the first of 22 siblings born a free person, proved to her parents that she was a special child.

Mary had a strong desire to learn at an early age. Her hometown in South Carolina had no schools for black children. Although many people thought that education for blacks was a waste of time, Mary proved that thought was wrong.

At eleven years old, Mary walked to school five miles from her home everyday, and proved that blacks needed an education. She was a very good student.

Mary graduated and went to college. She dreamed of being a missionary in Africa. She went to Chicago to study at the Moody Bible Institute. After graduating she tried to become a missionary but was told she was too young.

Mary taught school instead. She married Albertus Bethune and had a son. Soon after that, they moved to Florida. Mary became a fine teacher, but she had a desire to do more. With only \$1.50, she started a school for girls. In the beginning, she used a box for her desk and found her students' chairs in the city dump. Her school grew until it became Bethune College.

By 1923, Bethune College had joined with Cookman Institute. Mary proved that hard work does paid off. Today Bethune-Cookman College continues to educate young African-American students.

- 1. Why was Mary McLeod Bethune a great woman to you?
- 2. How much money did she begin her school with? Is this a lot of money?
- 3. Do you believe that is important to educate African-American children today?
- 4. Going to school is a privilege, how will you continue to honor the legacy of Mary McLeod Bethune?

## Langston Hughes 1902-1967

Langston Hughes was one of the most loved poets of his time. He was born in Joplin, Missouri and was raised by his mother and grandmother. After his grandmother died, he and his mother move to Cleveland. Because Langston was a lonely child, he spent most of his time reading. He began writing poetry, while sill in elementary school.

Langston had a gift for understanding how Black Americans lived, worked, talked and played, and wanted others to understand also. Langston had a writing style that many people enjoyed. It made them feel good. After he graduated from high school, Langston wrote his first poem, "The Negro Speaks of Rivers."

One day while Langston was working as a busboy in Washington, DC he put three of his poems beside the plate of a famous poet. The next day, newspapers around the country reported that a promising poet had been discovered. These events lead Langston to a scholarship to college. Before he graduated in 1929, he had published two books.

Langston also wrote plays, opera, songs, and books. By the end of his life, Langston Hughes was one of America's finest writers. In 1960, the National Association for the Advancement of Colored People (NAACP) presented Hughes with the Spingarn Medal, declaring him "Poet Laureate of the Negro Race."

- 1. Where was Langston Hughes born?
- 2. When did Langston write his first poem? What was the name of this poem?
- 3. How did people find out about Langston?
- 4. On a sheet of paper, write how Madam CJ Walker and Langston Hughes are similar.
- 5. Write how Paul Laurence Dunbar and Langston Hughes are similar.
- 6. Read one of Langston's poems.

### Duke Ellington 1899-1974 Famous Black Composer

Duke Ellington's music made him famous around the world. Edward Kennedy (duke) Ellington was born in Washington, DC. At an early age, he showed unusual musical talent. At age seven years old, he studied piano. He didn't always like to practice, but he knew he had to. Duke's friends began calling him "Duke," because he liked to dress in fancy clothes.

By age 17, Duke's full-time job was music. He was the leader of his own band in New York City and soon became a star. His music stirred many emotions in people as he brought different races together.

Duke Ellington became a great composer. He wrote more than 1,000 songs and composed music for films, operas, ballets, Broadway shows, and church services. Two of his most popular songs are "Sophisticated Lady" and "Satin Doll."

Duke continued to be on demand. He received many awards for his work throughout his life. His orchestra played for kings, queens, and presidents. Today his songs and music continue to delight millions of people.

- 1. What did Duke Ellington become?
- 2. What are some of Duke's accomplishments?
- 3. What is one of the most important similarities you see in Blacks from slavery to Duke Ellington?
- 4. Would you like to play an instrument, if so which one?
- 5. Try and compose your own music, play or song.

### The National Association for the Advancement of Colored People

Discuss these thought provoking questions before the lesson.

- Do you appreciate your freedom? How do you show this?
- Do you deserve the same rights and privileges as an American? Why?
- Would you be willing to stand and fight for the liberties of Blacks, even at the cost of your life?
- Should a Black child be able to attend an all white school?

In 1909, the National Association for the Advancement of Colored People (NAACP) was started. Its goal was to work for the fair treatment of African-Americans. This organization was organized by W.E.B DuBois and other people, both African-American and white. By 1955 the NAACP had more than 500,000 members.

In the beginning, the NAACP worked for African-Americans who had been victims of illegal violence. Today the organization works for equality in education, housing, jobs and voting rights for Black people. These battles are most often fought in court.

Many court cases argued by the NAACP changed history, but two stand out as landmarks. The first case involved a seven-year-old girl named Linda Brown. Her father sued the Board of Education in Topeka, Kansas. He wanted Linda to go to an all white school in their neighborhood. At that time in Topeka, whites and blacks couldn't go to the same schools. The NAACP won the case. On May 17, 1954 the Supreme Court ruled that segregation in schools was illegal.

The second case occurred in 1955, when Rosa Parks refused to give up her seat to a white man in Montgomery, Alabama. Segregation laws at the time made it illegal for African-Americans to sit next tot whites on buses. The NAACP defended Rosa when she was arrested for not giving up her seat. They won the case. On November 13, 1956 the justices of the Supreme Court decided that bus segregation laws were unconstitutional.

The NAACP is still today a leading civil rights organization. It continues to fight for justice and equality for all Americans.

### **Comprehension Questions**

- 1. On a sheet of paper, describe two cases handled by the NAACP. Fold your paper in half vertically: State the cause on one side of the paper, then on the other side write the outcome. Each case should have a cause and an outcome. <u>Cause</u> <u>Outcome</u>
- 2. Choose a topic and discuss how you might defend it, if you were a member of the NAACP.

## Vocabulary

Unconstitutional – not in keeping with the principles of the constitution of a state or country

Segregation – the separation of one racial group from a larger group or from the rest of society

Equality – the condition of having the same social, political or economic rights

Thurgood Marshall became the leading civil rights lawyer in the United States. Because he cared for people, he often represented his clients without getting paid for his work.

Thurgood and his staff won 29 out of 32 Supreme Court cases. In 1938, Thurgood was named the top lawyer for the NAACP. He was honored with the Spingarn Medal in 1946. Thurgood's most famous victory was in 1954. It was the Brown v. Board of Education case. This was during the time of segregation when black and white children had to go to different schools.

Reverend Oliver Brown's seven-year-old daughter, Linda was not allowed to attend an all white school that was close to her home. Her father thought this was unfair and decided to take this case to court. Marshall argued this case and won. This victory made it possible for the first time in U.S. history for students of all races to attend the same schools. Segregated schools were now against the law.

In 1965, Thurgood held the highest law enforcement position ever held by an African-American. His title was Solicitor General of the United States. This allowed him to argue cases for the government in front of the Supreme Court.

In 1967, President Lyndon B. Johnson nominated Thurgood Marshall for a judge on the Supreme Court. Marshall became the first Black justice of the United States Supreme Court.

Thurgood served twenty-four brilliant years as a Supreme Court judge. He retired in 1991. He is remembered as a great judge who dedicated his life to protecting the rights of all Americans.

### **Comprehension Questions**

- 1. What famous medal was Thurgood Marshal awarded?
- 2. If you were Reverend Oliver Brown's lawyer, explain how you would have defended this case. Set up your own court.
- 3. What position did Thurgood take in 1967?
- 4. How long did Thurgood serve as a Supreme Court Justice?
- 5. Explain why Thurgood was important to African-Americans.

## Vocabulary

Segregation – the separation of one racial group from a larger group or from the rest of society

Supreme Court – the highest court in the United States; nine justices sit on this court

#### Jesse Owens 1913-1980

Jesse Owens was born into a very poor black family. He worked very hard in elementary school and won a scholarship to Ohio State University. In college he became a track superstar.

In 1936 the Olympic Games were held in Germany. During this time the Nazis were in power. Adolf Hitler was the Nazis' leader. Adolf Hitler said that Germans were a "master race." Many Germans believed him. They thought that Germans should rule the world. Hitler and his followers were sure that the Olympic Games would prove they were right.

At the Olympic Games Jesse showed the world he was a great athlete. He won three gold medals in the running broad jump, the 100 meter dash, and the 200 meter dash. His relay team also took gold in the 440 meter. Jesse changed history by setting new world records.

Adolf Hitler was furious because a black man had embarrassed him in front of the world. Jesse Owens' success proved that people are winners because of their talent and hard work, not because of their race or nationality.

Jesse retired from track and became a successful businessman. He was also a speaker and youth worker. In 1976, he became the first Black goodwill ambassador to the Olympic Games.

Jesse Owens was honored with the Presidential Medal of Freedom in 1976.

- 1. On a sheet of paper, write how Jesse Owens has inspired you to be your best at what you do?
- 2. Name at least two of Jesse's successes.

#### Jackie Robinson

Although today African-Americans can play pro sports, it wasn't this way until the 1940s; pro sports had a "color line," meaning only whites could play. Jackie Robinson was born on a farm in Georgia in the year 1919. He was the youngest of five children. Later, Jackie's family moved to Pasadena, California. When they moved there, Jackie and his family were the only African-Americans on the block. While Jackie did very well in school, he really excelled in sports. He became the best young athlete in the whole city. After high school, Jackie attended Pasadena Junior College, where he led their football and baseball teams to championships.

Jackie was a track-and-field star in Pasadena, too. He set a national record in the long jump. He was such a great athlete that UCLA gave him a scholarship to go to school there in 1939.

While at UCLA, Jackie was the first student in the school history to play on the baseball, football, basketball, and track teams in the same year. Jackie was forced to leave school because he had to get a job to help out his mother. They needed more money to pay the bills. He worked at a camp for kids, and he also made money playing for the Los Angeles Bulldogs football team.

In 1942, Jackie was drafted into the US Army to fight in World War II. He became one of the first African-American officers in army history. Jackie decided early he would stand up for his rights no matter the cost. He was arrested for refusing to go to the back of an army bus. He was put on trial and won his case. He was found not guilty. He left the army in 1944.

Jackie wanted to play pro baseball, but at that time African-Americans could not play in the major leagues. During the first half of the 20<sup>th</sup> century, there were two baseball leagues in the United States. Whites played in the Major Leagues, while African Americans players played in the Negro Leagues.

After Jackie fought in World War II, many white people started to realize that it wasn't fair to treat him or other African-Americans differently. After all, if whites and blacks could stand together to fight and die for their country, they should be able to play the game of baseball together.

The owner of the Brooklyn Dodgers, a major baseball team, thought it was time that blacks were allowed to play in the majors. After sending out his scouts, they came back with the name Jackie Robinson.

During a meeting with Jackie, Branch Rickey told him he wanted him to play for the Dodgers. Jackie knew this was a chance of a lifetime. Rickey explained that it would take someone special, because many whites would not want him to play and would try and stop him. Rickey wanted to know if Jackie could handle it without fighting back. At first Jackie thought he was asking him to be a coward, but then he realized he was asking him to be brave and courageous.

Rickey wanted him to prove he was equal by what he did on the field. He knew if an African-American fought or yelled, it would ruin chances for other blacks. Robinson knew he had to pave the way, not just for himself, but for his people. He agreed to turn the other cheek when people sold or did mean things to him.

On April 15, 1947, Jackie Robinson stepped on the field as a member of the Brooklyn Dodgers. He made history. Over the next few months, Jackie had to deal with a lot of mean things, not only from the fans, but from the other white players. Pitchers threw balls right at his head; runners came into the base with their spikes high, trying to hurt him.

It was on his first road trip that Jackie got heckled by the other team's players and fans. The Dodgers' white shortstop, Pee Wee Reese, came out to put his arm around Jackie. Reese showed that he was his teammate, no matter what color his skin was.

During his first year, Jackie won the Rookie of the Year Award. Soon Jackie became known as one of the most famous people in the country. Everywhere he went fans flocked to see him play. More importantly, he had succeeded in breaking down the baseball's color line. Other teams had started signing Black players. Jackie played for the Dodgers from 1947 until 1956. He led the Dodgers to the World Series six times, and they won in 1955.

Jackie became so popular that in 1950, he played himself in a movie called "The Jackie Robinson Story." It told of his fight for equal rights and his baseball career. After he retired in 1956, Jackie spent the rest of his life fighting for equal rights for all African-Americans. He helped them start businesses and worked with civil rights leaders like Martin Luther King, Jr. In 1962, Jackie Robinson became the first African-American to be voted into the Baseball Hall of Fame.

Jackie died of a heart attack in 1972. Although he will always be remembered as the greatest athlete ever, more importantly, he will be remembered as a brave, strong and courageous man. He proved that African-Americans were equal to whites. Jackie changed the whole country while also changing the course of history. He broke the color line and paved the way for other blacks to play baseball. Jackie once said, "Life is not a spectator sport." Everyone must play.

- 1. What three sports did Jackie excel in?
- 2. Why was Jackie arrested?
- 3. What were the two teams in the leagues?
- 4. How do you believe Jackie showed courage?
- 5. What do you think was the turning point for Jackie and his teammates after their first road trip?
- 6. What year did Jackie lead the Dodgers to a victory in the World Series?
- 7. After his retirement, what did Robinson spend the rest of his life doing?
- 8. How did Jackie change the course of history?
- What do you think Robinson meant by "Life is not a spectator sport"? Explain.

Dr. Martin Luther King, Jr. was a man of great courage and tenacity. During the 1960s, Martin Luther King's leadership guided the civil rights movement.

Growing up Martin had three heroes who greatly inspired him. They were Martin Luther (the man he was named after), Henry David Thoreau, and Mohandas Gandhi. It was through their lives and teaching that Dr. King learned that nonviolent action was the best way to change unfair laws.

At only 25 years of age, Martin became the pastor of a church in Montgomery, Alabama. His speaking quickly inspired and impressed the church. They knew that one day he would be a great leader.

In the 1950s, King became a well known pastor. Martin saw that blacks were not treated fairly, and that every citizen had a right to be, regardless of color, race, gender or religion. This was known as the civil rights movement. In 1956 he led the bus boycott that ended separate seating on Montgomery public buses.

In 1963 there was a march led by King to the Lincoln Memorial to demand equality for all Americans. Two hundred fifty thousand people were a part of this march. It was there that Martin gave his famous "I Have a Dream" speech. A year later, Dr. King was awarded the Nobel Peace Prize.

In 1968 on April 3, King was in Memphis Tennessee to help organize a protest march for the garbage workers being paid unfairly. It was there that Dr. King was shot and killed. He was 39 years old. Dr. King worked hard to secure equality and justice for all Americans. In 1983 Dr. King's birthday was declared a national holiday. Dr. Martin Luther King inspired us all with his dream.

# Comprehension Questions

- 1. What did you admire most about King's job?
- 2. What awards did he win?
- 3. Who inspired Martin as a young boy?
- 4. What political action did he aid in?
- 5. Write about what you admire most about King's life?
- 6. If you could meet Dr. Martin Luther King, what would you say to him?

## Vocabulary

Nonviolence – the practice of or belief in avoiding violence to accomplish one's goals

Equality – the condition of having the same social, political or economic rights

Civil rights – the rights of every citizen, regardless of color, race, gender or religion

Boycott – the organized effort of refusing to use or buy a product or service from another person, store or country

# Social Studies

**Community Helpers** 

Job Description: Mail Carrier

- Deliver mail and packages to houses, roadside mailboxes and large buildings
- Collect money for postage-due and COD (cash on delivery) fees
- Get signed receipts for registered, certified and insured mail
- Pick up mail from street collection boxes, homes and business, and return it to the post office

Requirements: High school diploma, 18 years old, and a U.S. citizen or permanent resident, -- pass written and physical exams, must be able to lift 70 pounds, -- a driver's license and a good driving record

Job Description: Veterinarian

- Treat animal injuries and diseases
- Perform surgery on sick and injured animals
- Educate pet owners on animal care and training
- Give immunizations and perform diagnostic tests

• Be aware of recent techniques for treating animal injuries and diseases Requirements: College degree and four years of veterinary school, pass a licensing exam, -- love animals and have an interest in animal health, -- experience handling and caring for animals

# Job Description: Construction Worker

- Read and comprehend plans, drawings, and other instructions or specifications
- Load, unload, identify and distribute building materials
- Tend to or run heavy machinery
- Prepare construction sites for building, and eliminate hazards
- Work as a member of a team with other skilled craftsmen

Requirements: Good communication skills, -- general problem solving and math skills, -- basic computer skills, -- often an apprenticeship is required

### Job Description: Bank Teller

- Cash checks, accept deposits, and process withdrawals
- Sell savings bonds and travelers checks
- Answer questions about accounts, investments, and loans
- Balance cash drawer, deposit slips, and receipts at the end of the workday

Requirements: High school diploma, -- often a completion of a banking class and on the job training, -- good math and computer skills

### Job Description: Chef

- Prepare food by measuring, mixing, and cooking ingredients according to recipes
- Give instructions to other kitchen workers
- Plan meals and develop menus
- Estimate food requirements and order food supplies

Requirements: High school diploma usually required; some high school students work at fast-food restaurants while they're going to school, -- often vocational school or two to four years of college, -- an apprenticeship is often required, -- food handling, preparation, and cooking skills, -- a good sense of taste and smell

## Job Description: Teacher

- Select materials and plan class lessons
- Help students learn and keep progress records
- Prepare, administer, and keep progress records
- Maintain classroom discipline
- Use teaching methods that recognize individual student differences to help students learn

Requirements: Four year college degree, -- most must pass a state licensing test and get a state teaching certificate, -- good communication and teaching skills, -- work with other teachers, parents, and members of the community

Job Description: Sanitation Worker

- Collect trash, garbage and recyclable materials from homes and businesses along a regularly scheduled route
- Drive the trash to a garage dump, landfill, or recycling center
- Lift and empty garbage cans or recycling bins by hand, or use a lift truck that picks up and empties the dumpsters
   Requirements: Good driving record, -- class B driver's license, -sometimes must pass a physical strength test, -- on the job training, strong, careful and dependable

## Job Description: Sales Clerk

- Sell products and services for stores
- Help customers find what they are looking for and try to interest them in buying products
- Describe a product's features, demonstrate its use, or show different models or colors
- Check the stockroom, place a special order, or call another store to locate a product

Requirements: High school diploma usually required; some high school students work as clerks while in school, --college or vocational training needed for some specialized work, -- on-thejob training, -- able to handle and count money, operate cash register and help customers make choices Job Description: Police Officer

- Investigate crimes, enforce laws, and testify in court
- Teach and protect people
- Arrest lawbreakers
- Direct traffic at the scene of a fire or accident
- Help keep crowds safe and orderly
- Give first aid to accident or crime victims Requirements: High school diploma, 20 years old, and a U.S. citizen, -- pass a physical exam and attend a police training school, -- be able to think clearly in crisis situations

Job Description: School Bus Driver

- Drive students to school in the morning and back home in the afternoon
- Drive student on field trips, to sporting events, and to other school activities
- Check the bus' tires, brakes, windshield wipers, lights, oil, fuel, and water supply before each route
- Be on time

Requirements: At least 21 years old with a good driving record, -state commercial driving record, state commercial driver's license, training on state and local laws, policies of operating a school bus, first aid, and emergency bus evacuation procedures, -- excellent eyesight and hearing

## Job Description: Mechanic

- Wait on customers and help customers select car care products
- Diagnose and repair problems
- Teach customers how to take care of their vehicles
- Inspect, maintain, and repair vehicles

Requirements: Automotive training from a trade or vocational school is preferred; -- apprenticeship with experienced mechanic is sometimes required, -- able to use electronic diagnostic equipment and computer-based reference materials, -- good math skills

# Job Description: Pharmacist

- Dispense drugs prescribed by physicians to their patients
- Advise doctors and patients on the uses of medication, dosages, and side effects
- Mix ingredients to form powders, tablets, capsules, ointments, and solutions

Communicate with insurance companies
 Requirements: Degree from an accredited college of Pharmacy,
 pass a state written exam, license from the state, on-the-job training

## Job Description: Military

- Defend the United States and other countries, both at home and abroad
- Train, plan and led military operations
- Destroy enemy positions and weapons
- Conduct secret missions to gather intelligence information

• Preserve peace throughout the United States and the world Requirements: High school diploma or equivalency: officers need four or more years of college, -- must 17-35 years old, a U.S. citizen or immigrant alien, and never been arrested, -- pass written and physical exam, -- solve computer problems and be willing to follow orders

## Job Description: Pilot

- Inspect plane to see that engines, controls, instruments, and other systems function properly
- Verify that all cargo and baggage is loaded correctly
- Plan flight route based on weather and conditions
- Monitor airspeed, altitude, and weather during flight

• Handle controls during takeoff and landing Requirements: Must be 23 years old and have a two or four year college degree, -- 1500 hours of flight experience from either the armed forces of a FAA certified flight test, -- have an airline transport pilot's license, -- must have perfect vision with or without glasses, good hearing, and no physical disabilities that would negatively affect performance

# Job Description: Nurse

- Help patients cope with pain, disability, or illness
- Carry out doctors' orders for patient medication and treatment
- Watch and record patients' symptoms, reactions, and progress
- Assist doctors during patient examinations and surgical procedures

Requirements: Two to three year nurses' training for LPN (Licensed Practical Nurse), -- two to three year diploma program for ADN (Associate Degree, Nursing), -- four to five year degree program for BSN (Bachelor of Science, Nursing), -- pass a licensing exam, -- able to handle emergencies and other stresses

# Job Description: Paramedic

- Give emergency care and transport seriously ill or injured patients to the hospital
- Report patients' conditions and treatments to emergency room staff

 Replace used supplies, check equipment, and clean the interior of the ambulance when needed
 Requirements: High school diploma, -- Emergency Medical
 Technician (EMT) training plus a special two year paramedic course, -- pass the National Registry of Emergency Medical
 Technician exam to be certified as an EMT Paramedic, -- able to lift and carry heavy loads

### Job Description: Hairstylist

- Shampoo, cut, color, perm, braid, and straighten hair
- Shave and trim beards and mustaches
- Clean work area and sterilize scissors, combs, and instruments
- Suggest hairstyles and products to clients

• Record products used on clients' hair Requirements: Usually a high school diploma and often graduation from a state licensed cosmetology school, -- pass a state licensing exam and demonstrate basic hair styling skills, -must be able to stand most of the day and be patient and pleasant with people, knowledge of current styles, hair care, and hair care products

## Job Description: Delivery Person

- Deliver goods from business to business
- Check the fuel level and oil of the trucks
- Make sure truck brakes, windshield wipers, and lights are in good working order and that the cargo is secured
- Drive safely and deliver packages on time Requirements: High school diploma preferred, -- commercial driver's license and able to drive a truck safely, -- able to keep accurate records and read road maps, -- able to lift heavy boxes, good hearing and 20/40 eyesight or better

### Job Description: Dentist

- Diagnose, prevent, and treat tooth and gum problems
- Examine x-rays, remove tooth decay, fill cavities, use protective sealants, and repair broken teeth
- Perform corrective surgery on gums and treat gum disease

• Pull teeth and make plastic moldings and dentures Requirements: College degree and four years of dental school, -pass a state licensing exam, -- excellent diagnostic ability, eyesight, and manual skills, -- sensitivity to patients' discount, -good business sense, self discipline, and communication skills

## Job Description: Doctor

- Examine patients, get medical histories, and perform diagnostic tests
- Diagnose and treat diseases and accident victims
- Teach patients about healthy diet, hygiene, exercise, and preventive healthcare habits
- Treat patients based on their individual needs

Requirements: College degree and four years of medical school, -- internship and/or residency working with experienced doctors, -pass a state licensing examination, -- intelligence, good listening skills, and sensitivity to the needs of others

## Job Description: Factory Worker

- Assemble and pack products; fill orders
- Maintain records, prepare shipments, and accept delivers
- Make sure that orders have been filled correctly
- Move shipments to the proper department, warehouse section, or stockroom

• Prepare shipping documents and mailing labels; ship orders Requirements: Basic reading and math skills, -- attention to detail, -- good organization skills, -- often requires physical strength

### Job Description: Farmer

- Plant, fertilize and harvest crops
- Keep records on animals, examine them to detect diseases and injuries, help in birthing animals; and give medication, vaccinations or use insecticides
- Deliver crops and machinery clean and in working order Requirements: College degree or training in agriculture or business help, -- often on-the-job training, -- able to operate and repair tools and machinery, -- good business sense

## Job Description: Highway Worker

- Clear and prepare highway work zones and right of ways
- Put up traffic barricades, cones, signs and markers
- Control traffic passing near, in, and around work zones
- Sometimes install sewer, water and storm drainpipes, build manhole, and lay cement and asphalt on roads

Requirements: On-the-job training, -- physical strength and stamina, -- good manual skills, hand-eye coordination, and balance, -- good reading skills to understand plans, drawings, written instructions, and guidelines

# Job Description: Judge

- Decide whether there is enough evidence to have a trial
- Oversee trials and listen as lawyers present their cases
- Guarantee that trails and hearings are conducted fairly and legally
- Instruct juries to look at the evidence and come up with a verdict
- Determine guilt or innocence in some cases

• Determine how and for how long some will be punished for a crime Requirements: College degree and a one to two year degree in library science, -- interest in literature, education, research, and information, -- able to use a wide variety of sources to get information, -- good computer and internet skills

# Social Studies Comprehension Questions

Use these questions to discuss the workers in your community. These questions are especially designed to provoke thought and communication. You can choose to ask students all the questions in order or just choose the questions that you believe are appropriate for your younger students. This section is provided so that the student with a wealth of knowledge of their environment and the world around them. The questions and activities have been broken up into three sections.

## Section 1

Which community worker would use the following items? Explain what the item is and how it is used. Say the item firs, then let the student answer. If they don't know the answer, read the definition.

Recycling bin – A recycling bin is a box with the recycling symbol printed on it.

Recycling bins hold aluminum cans, newspapers, plastic bottles and other recyclable items.

Activity – Use a recycle bin in your home for one week. Do you think you would like to be a \_\_\_\_\_?

Deposit slips – A deposit slip includes the customers account number, deposit date, and deposit amount. A customer fills out a deposit slip when putting money into his or her account.

Cash register – A cash register is a machine with a numeric pad and a cash drawer that adds up purchases, processes sales, and makes out a receipt for customers.

Otoscope – An otoscope is a hand-held instrument with a lighted, cone-shaped end that is inserted into the ear canal to examine the eardrum.

Ballot – A ballot is a form that lists all the candidates running for a particular office. Voters place a mark by the name of the person they want elected. A <u>?</u> is voted into office by the people in his or her district or appointed by a government official.

Bar code scanner – A bar code scanner is an instrument that decodes the rectangular bars and spaces on the bar code. <u>?</u> use the scanner to identify books that are being checked out or returned.

Stethoscope – A stethoscope is an instrument that is used for listening to a person's heart and lungs. A <u>?</u> puts one end of the stethoscope in his or her ears, puts the other end on the patient's chest or back, and asks the person to take deep breaths.

Syringe – A syringe is a glass or rubber tube with a fitted piston at one end that when pulled out will draw in fluids or when pushed in will eject fluids. It can be used for injecting medicine or cleaning wounds.

Lapel wings – Lapel wings are shaped like a pair of bird's wings and worn on a <u>?</u> jacket or coat. A <u>?</u> receives the wings after completing his or her training.

Mortar and pestle – A <u>?</u> will use a mortar (a special bowl) and pestle (a club-shaped tool) for pounding and grinding medications. Sometimes medications need to be ground up and added to water or mixed with other substances.

Dumpster – A dumpster is a metal garbage container often place outside of large buildings. Because a dumpster is very large and heavy, sanitation workers use hydraulic lifts to dump the garbage from the dumpster into the truck.

## Section 2

- Do you think that you would enjoy this career?
- What parts of this career do you think would be most interesting?
- What parts of this career do you think would be difficult?
- How does this career help people in the community?
- What things could you start working on now if you would like to have this as your career in the future?
- Which tools would be fun to use? Which ones would be dangerous?
- Would you need to work well with people in this career?
- What question would you ask someone interviewing for this career?
- What would be the best thing about having the career? The worst?
- What words associated with this career do you not understand?

# Advanced Comprehension Questions

- How many community helpers have you seen today or this week?
- What kinds of things should you know about yourself before choosing a career?
- What would you like to be when you grow up? Why?
- How can school help you prepare for a career?
- Which community helpers use some of the same tools?
- Which careers have some of the same duties and requirements?
- Which careers require a college degree?
- Which careers require physical strength?

### Section 3 Activities

Choose at least 3 different community workers that you would like to become. Write up your own resume' about yourself and why you feel you are qualified for those careers.

This week pretend you are a mail carrier, what are some of the duties you are going to do? Pack your mail bag as if you were a mail carrier.

This week pretend you are a construction worker, what are some of the duties you are going to do? Build you own building with a set of blocks (Kdg and  $1^{st}$  grade). Build your own building with popsicle sticks and tacky glue ( $2^{nd} - 3^{rd}$ ).

This week pretend you are a chef, what are some of the duties you are going to do? Choose a recipe, gather your ingredients and prepare your dish for family.

This week pretend you are a teacher, what are some of the duties you are going to do? Devise your own lesson plan for a week and follow it.

• A resume' is provided for you. A lesson plan sheet is provided for you.

Resume' – a summary or history of work experience

## Direction Words

Left, right, up, down, under, above, over, on, off, between, beside, inside, in, on top of, in front of, beyond, north, south, east, west, behind, in back of, next to

Date introduced	Date mastered
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#### **Environmental Information**

What three colors are on a traffic light? Which color tells us to stop? Which color tells us to go? Which color tells us to be careful? How many states are there in the USA? What will a tadpole turn into? What will a caterpillar turn into?

Ask your child - What jobs will these people have?

Fire fighter – works for the fire department Astronaut – works in space Sailor -- works on a boat Librarian – works in a library Teacher – works in a school Doctor – Works in a hospital or an office

Ask your child <u>what are the words that can describe a girl</u>? A person can have many different names. Girl – female, daughter, sister, cousin, niece

What are the words that can describe a boy? Boy – male, son, brother, cousin, nephew

Your mother's mother is your	•
Your father's father is your	
Your mother's mother's mother is your _	
Your father's father's father is your	·
Your mother's sister is your	_ <b>.</b>
Your father's brother is your	•
Your mother's sister's child is your	·

If you are a girl, you are your mother's sister \_\_\_\_\_. If you are a boy, you are your father's brother \_\_\_\_\_.

Date introduced \_\_\_\_\_ Date mastered \_\_\_\_\_