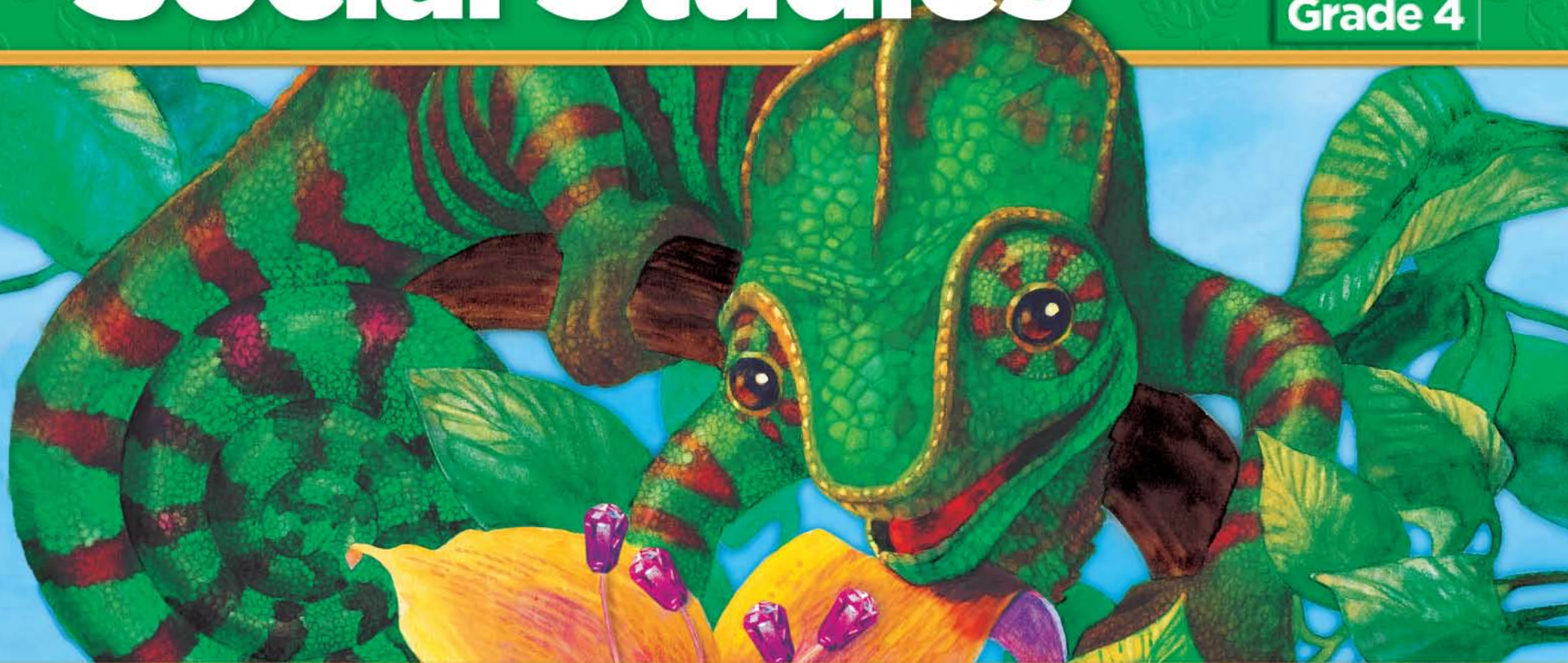


WORKSTATION FLIP CHART

Science/ Social Studies



Grade 4



Macmillan/McGraw-Hill

978-0-02-200993-9
MHID: 0-02-200993-0



WORKSTATION FLIP CHART

Science/ Social Studies

A

The McGraw-Hill Companies



Published by Macmillan/McGraw-Hill, of McGraw-Hill Education, a division of The McGraw-Hill Companies, Inc.,
Two Penn Plaza, New York, New York 10121.

Copyright © by Macmillan/McGraw-Hill. All rights reserved. No part of this publication may be reproduced or distributed in
any form or by any means, or stored in a database or retrieval system, without the prior written consent of The McGraw-Hill
Companies, Inc., including, but not limited to, network storage or transmission, or broadcast for distance learning.

Printed in the United States of America

1 2 3 4 5 6 7 8 9 10 109 09 08 07 06 05



Contents

UNIT 1

Week 1 The Mystery of the Missing Lunch

Nature's Mysteries.....	1
History Mystery Game.....	2

Week 2 A Walk in the Desert

It's a Fact!.....	3
Desert Ecosystems.....	4

Week 3 Animals Come Home

How Trees Help Us.....	5
Work with Trees!.....	6

Week 4 The Astronaut and the Onion

The Solar System.....	7
Manners in Space.....	8

Week 5 The Raft

How to Build a Raft.....	9
The River's Name.....	10

UNIT 2

Week 1 Mighty Jackie

Batter up!.....	11
Game Time.....	12

Week 2 My Diary from Here to There

Rock Study.....	13
Interview a Newcomer.....	14

Week 3 Stealing Beauty

A Chinese Invention.....	15
Different Homes.....	16

Week 4 Ben Franklin

The Light Bulb.....	17
Streetlights.....	18

Week 5 Dear Mr. Winston

Reptiles.....	19
Tropical Rain Forests.....	20

UNIT 3

Week 1 Roadrunner's Dance

Study an Animal.....	21
Habitat of the Coyote.....	22

Week 2 My Brother Martin

Starry Skies.....	23
Travel the Underground Railroad.....	24

Week 3 This Girl Means Business

Make a Window Cleaner.....	25
In the News.....	26

Week 4 Mystic Horse

Red Hot Chili Peppers.....	27
Native American Celebrations.....	28

Week 5 Snowflake Bentley

It's Snowing!.....	29
Rain and Snow.....	30

UNIT 4

Week 1 Dear Mrs. LaRue

How Dogs Help.....	31
Animal Shelters.....	32

Week 2 The Blind Hunter

Helpful Inventions.....	33
Computers Today.....	34

Week 3 The Power of Oil

A Wind Farm.....	35
Electricity History.....	36

Week 4 Adelina's Whales

Whales.....	37
Animal Photographs.....	38

Week 5 At Home in the Coral Reef

Research Coral Reefs.....	39
Atlantis.....	40

UNIT 5

Week 1 Because of Winn-Dixie

Popcorn.....	41
Popping History.....	42

Week 2 Ranita, the Frog Princess

Move Your Body.....	43
An Actor's Life.....	44

Week 3 Exploring the Undersea Territory

Jellyfish.....	45
Spanish Explorers.....	46

Week 4 Me and Uncle Romie

A Color Wheel.....	47
Monuments.....	48

Week 5 Wild Horses: Black Hills Sanctuary

Horses.....	49
Horses of North America.....	50

UNIT 6

Week 1 The Gold Rush Game

It's a Fact!.....	51
When Did it happen?.....	52

Week 2 The Cricket in Times Square

Endangered Species.....	53
Wildlife Symbols.....	54

Week 3 Meet a Bone-ified Explorer

Tree Parts.....	55
Trees Are Important.....	56

Week 4 My Brothers' Flying Machine

Landforms.....	57
History Comes to Life.....	58

Week 5 The Life and Times of the Ant

Being Healthy.....	59
History Lesson.....	60



- Use an encyclopedia or other reference materials to answer questions about mysteries in nature, such as *What is a rainbow?*, *Why is the sky blue?*, *What causes snow?*, or *What happens when it thunders during a rainstorm?*
- Look for information about your mystery in nature topic.
- Take notes.

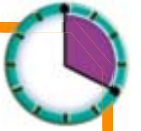


Extension

- Use your notes to create a poster about what you learned and display it.

Things you need:

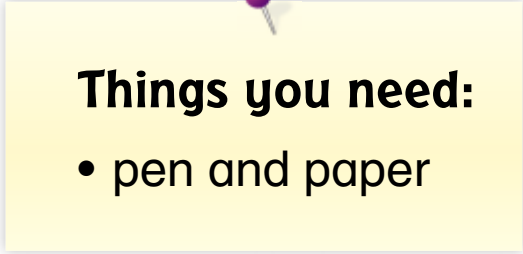
- encyclopedia or other reference materials
- pen and paper
- colored pencils or markers



- Think of a famous historical person, place, or event.
- Write down as many clues as you can.

Extension

- Using your clues, play a guessing game. Give a partner one statement after another about your history mystery until he or she guesses the answer.
- Switch roles with your partner.



Things you need:

- pen and paper





- Use an encyclopedia or other reference materials to look up information about deserts. Take notes.
- Review your notes and make a list of at least five new things you learned.

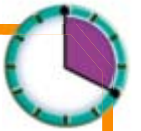
Extension

- Using your list, make up true/false questions. Then ask a classmate to answer them.

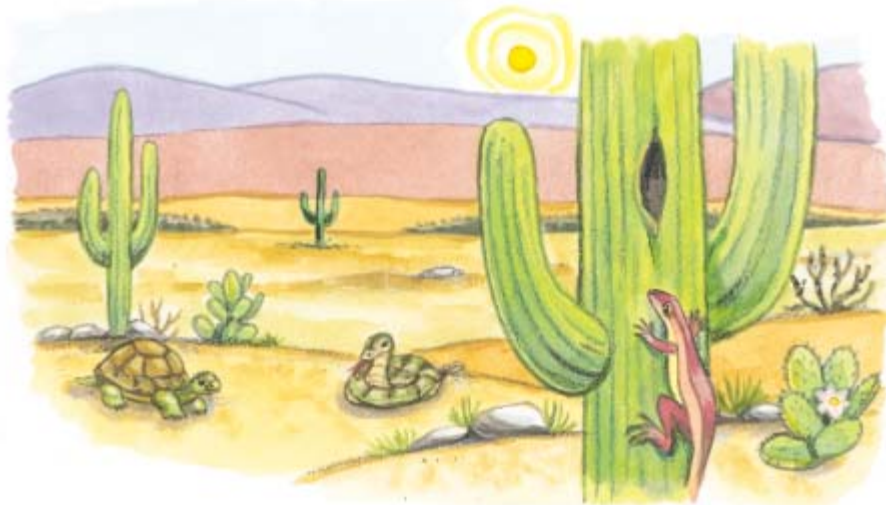


Things you need:

- encyclopedia
- other reference materials
- pen and paper



- Using books on deserts, the Internet, and other reference materials, research where deserts are located around the world.
- Look for facts about the regions in which deserts are found, the climate, animals that live there, and weather patterns.



Extension

- Using the facts you found, draw a picture of the desert and label the different things found in its ecosystem.

Things you need:

- online resources
- reference books
- pen and paper
- colored pencils or markers



- How do trees help people? Find the answer to this question in a science book or encyclopedia.
- Write a paragraph about the information that you find.
- Begin your paragraph with a sentence that tells the main idea.
- Then give supporting details in the next sentences.

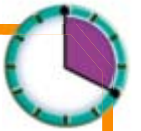


Extension

- Draw a picture of a tree. On each branch, write one way that trees help people.
- Label your picture, “Good Things About Trees.”

Things you need:

- science book
- encyclopedia
- pen and paper
- colored pencils



- Use online references or an encyclopedia to research the various types of jobs connected to trees; for example, landscaping, carpentry, or forestry.
- Write a few sentences describing each job.

Extension

- Find out which states are known for making paper.
- Discuss which region of the country produces the most paper.

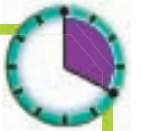


Things you need:

- online resources and encyclopedia
- pen and paper



The Solar System



- Research the solar system in an encyclopedia or science book. Write at least one fact about each planet.

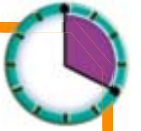
Extension

- Draw a diagram of the planets. Add labels.



Things you need:

- encyclopedia or science book
- pen and paper
- colored pencils



- Imagine you are going on a long space mission with other crew members. Write a list of rules that will help crew members work and live together peacefully.

Extension

- Share your list with a partner. Discuss the rules you listed and develop a final set of rules on which you both agree.



Things you need:

- pen and paper



How to Build a Raft

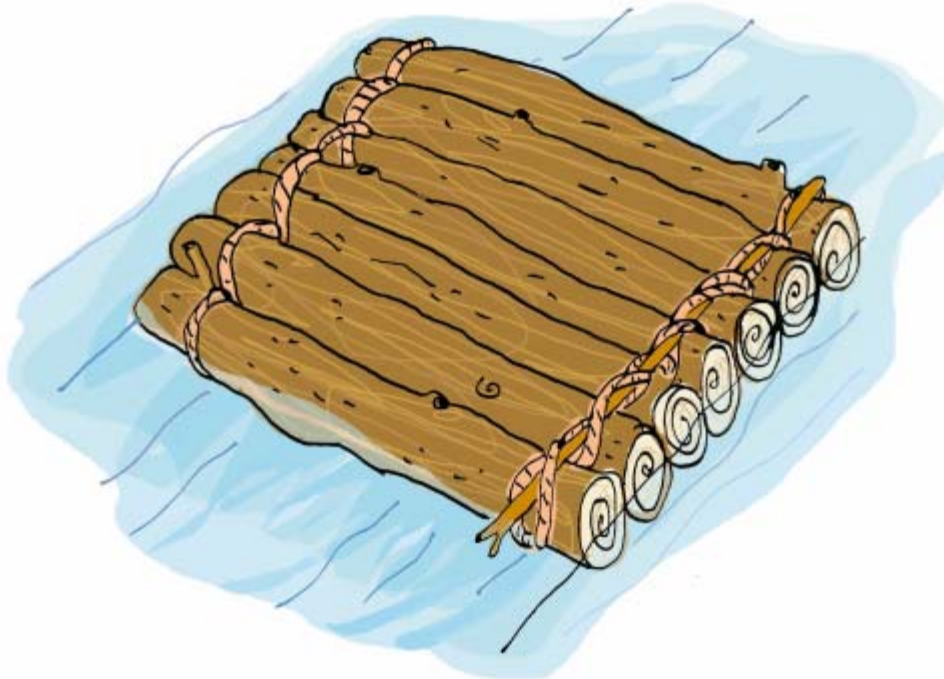
20 Minutes



- Use a reference book to find out how to build a raft and how or why it is able to float.
- Write step-by-step directions and include the materials needed.
- Number each step.

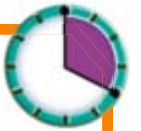
Extension

- Illustrate each step of your directions and the completed raft.
- Include a diagram of how the raft floats.



Things you need:

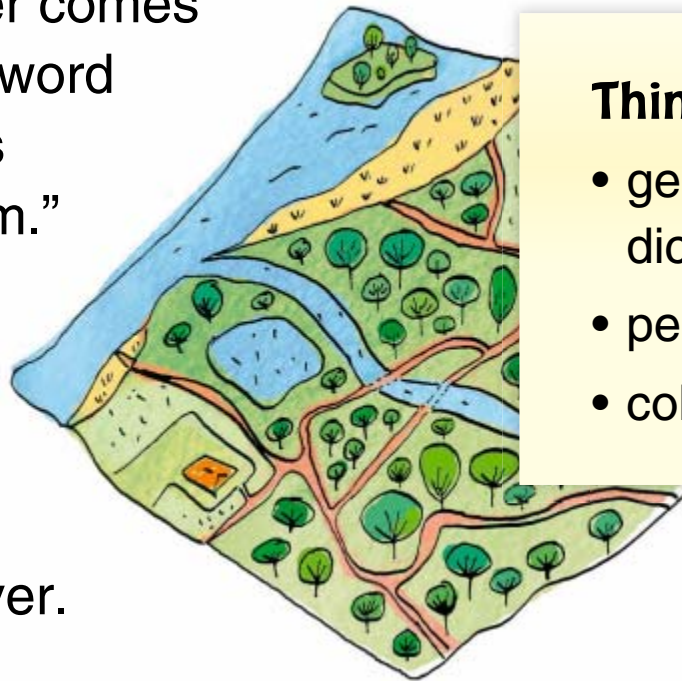
- reference books
- pen and paper
- colored pencils or markers



- Use a map to find the name of a river in your state.
- Use a geographical dictionary to find out how the river got its name. For example, the Nashua River comes from the Native American word *Nash-a-way*, which means “River with Pebbled Bottom.”
- Write sentences that explain the meaning of the name and its history.
- Tell how the meaning of the name describes the river.

Extension

- Draw a map that shows where the river flows in your state.



Things you need:

- geographical dictionary
- pen and paper
- colored pencils



Batter Up!



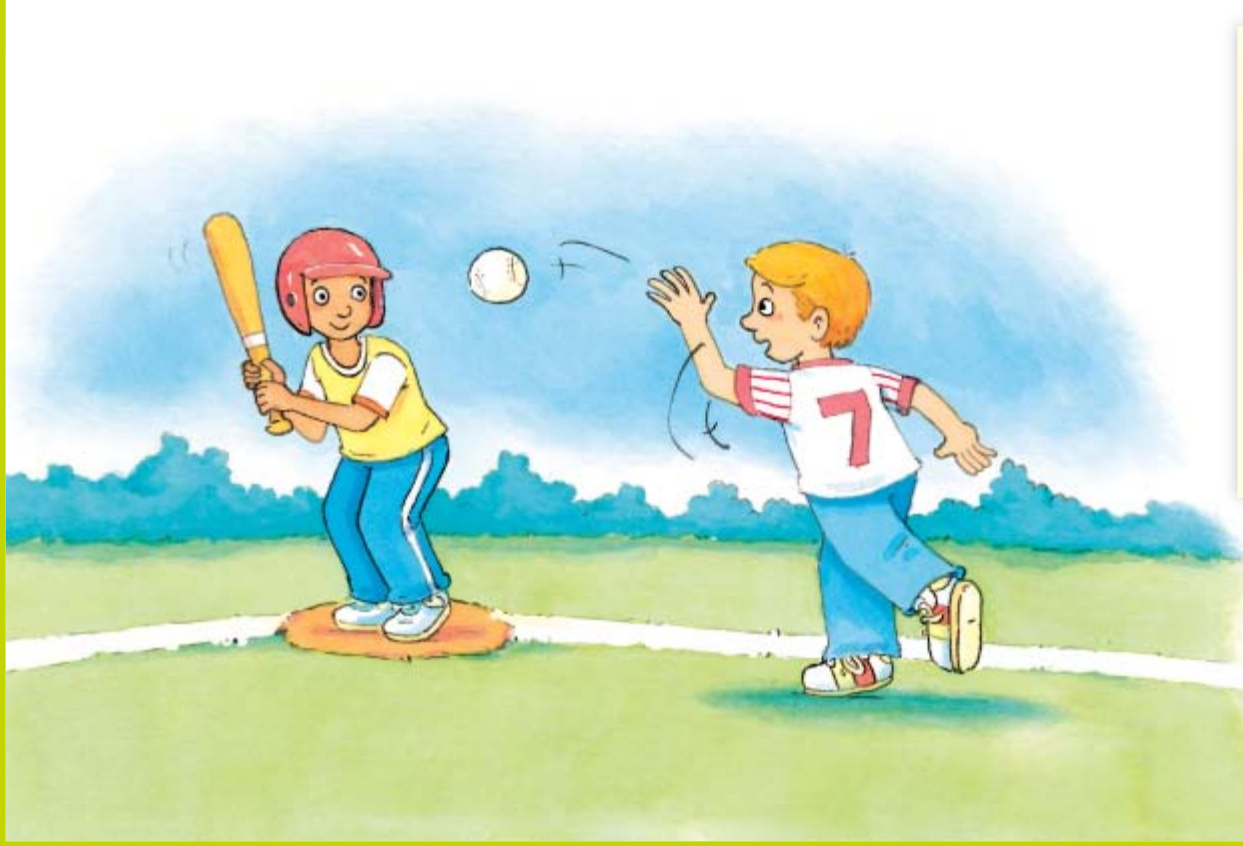
- Use the Internet to research how to throw a curve ball or a slider.
- Write the directions in step-by-step order.

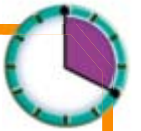
Extension

- Draw and label a diagram of how the pitch works.

Things you need:

- online resources
- pen and paper
- colored pencils or markers





- Use an almanac to find out where and when your favorite baseball team is playing.
- Choose one month and write the dates, times, and places where the games will be held.

S	M	T	W	TH	F	S
		⚾		⚾		
						⚾
			⚾			
						⚾

Extension

- Using the information you found, create a table. For example, you could show how many times your team plays in a certain city or state during the month.

Things you need:

- almanac
- pencil and paper
- ruler



Rock Study



- Imagine that you were a good friend of Amada's. What types of science experiments could you do with her special rock?
- Choose one type of rock to research. Using science textbooks, encyclopedias, or other reference materials, find interesting facts and important information about the rock you chose. Take notes on note cards.

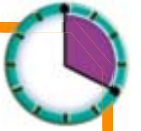


Extension

- Using your notes, write a step-by-step guide on how to conduct an experiment with rocks.

Things you need:

- science textbooks, encyclopedias, or other reference materials
- pen and paper
- note cards



- Think of a person who might be new to your school or hometown.
- Write a list of five questions you could ask this person about where he or she came from and his or her experiences in coming to a new place.

Extension

- Role-play an interview with a partner. One person will role-play a newcomer to your school. The other will be the interviewer.
- Use your questions to conduct the interview.



Things you need:

- pen and paper



- Research information about the magnetic compass invented by the Chinese more than 2,000 years ago.
- Write a brief explanation of how to use a compass.

Extension

- Describe to a partner a real or imagined situation in which a compass helped someone reach safety.



Things you need:

- reference materials
- pen and paper



- People around the world live in many different kinds of homes.
- Use online resources to learn about various homes in other countries. Write a descriptive essay about one of these homes.

Extension

- Share your essay with a classmate.
- Find a place where you can add more details to make your writing better.



Things you need:

- online resources
- pen and paper



The Light Bulb



- Using an encyclopedia or science book, research facts about the light bulb.



Extension

- Make a time line that shows how the light bulb has changed since it was first invented.

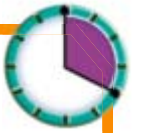
Things you need:

- encyclopedia
- science books
- pen and paper
- ruler



STREETLIGHTS

20 Minutes



- Imagine that your town wants to put telephone and streetlight wires underground.
- List the pros and cons of this plan. Think about how much it will cost, how construction will affect traffic, and how streets will look without wires.

Extension

- Using the information you listed, write a paragraph to persuade your town to put the wires underground or to keep them above ground.

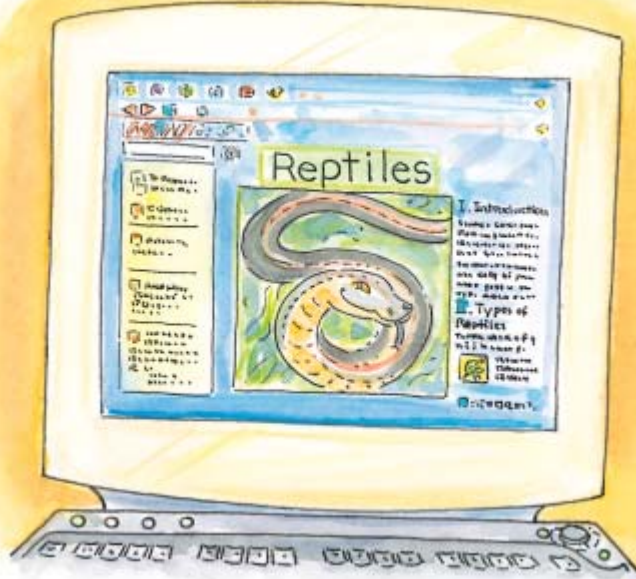




- Research an answer to this question:
Which animals belong to the order (or group) called reptiles?
- Use an online encyclopedia to find the answer.

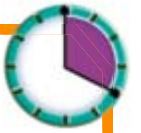
Extension

- With a partner, list all the reptiles you can be certain live in your region.



Things you need:

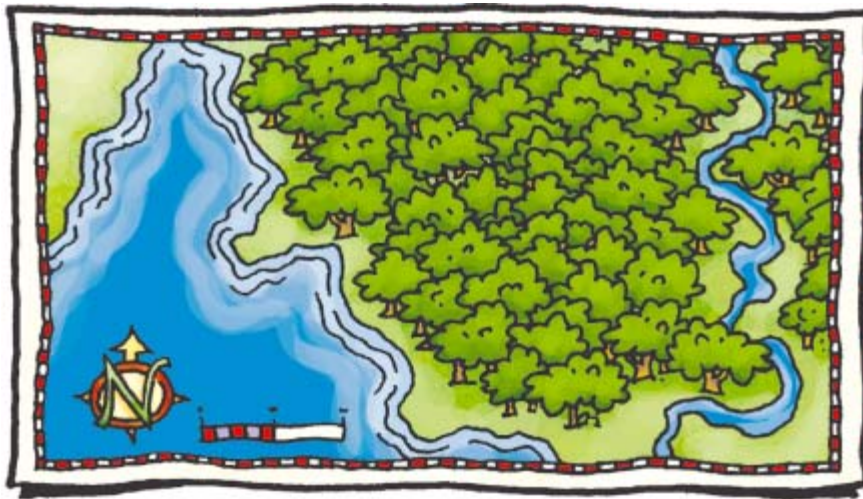
- online encyclopedia
- pen and paper



- Many regions of the world have tropical rain forests.
- Use an online encyclopedia to find out where the tropical rain forests are located.
- Make a list of the places you find.

Extension

- Draw a map showing one region that has a tropical rain forest. Write a caption for your map.
- Include in your caption where the rain forest is located and if it has a special name.



Things you need:

- online encyclopedia
- pen and paper
- colored pencils or markers



- Using an encyclopedia or science book, try to find three facts about coyotes.
- Write each fact on a note card.
- Try to find out why the coyote is sometimes called “the little wolf.”

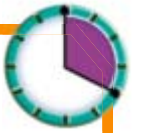
Extension

- Use your notes to write a short paragraph about the coyote.



Things you need:

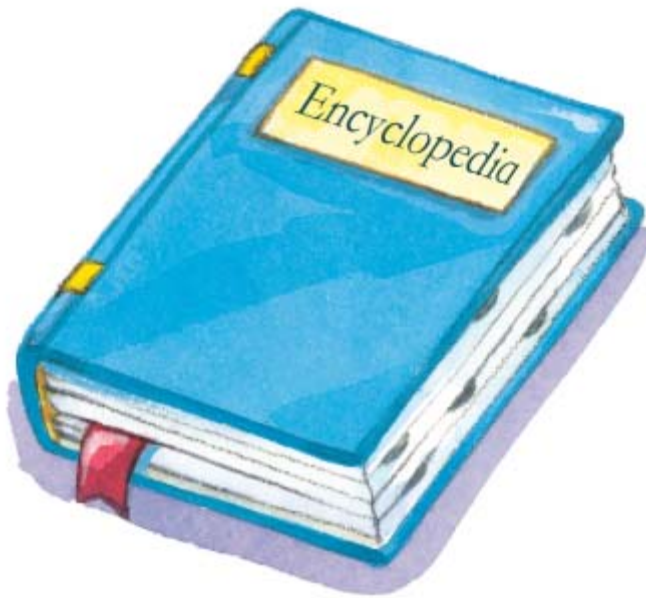
- encyclopedia
- science book
- pen and paper
- note cards



- Using the Internet or an encyclopedia, find out which states coyotes live in.
- Make a list of the states according to the region in which they are located.

Extension

- Draw a map of the United States and shade in states where coyotes are found.



Things you need:

- encyclopedia
- pen and paper



Starry Skies



- Use a science book to find facts about the North Star.
- Find out how people have used the North Star to find their way.
- On paper, write at least three facts that you learned.

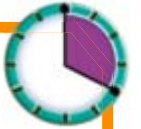
Extension

- Use your facts to write a letter to a friend telling him or her what you have learned about the North Star.



Things you need:

- science book
- pen and paper



Travel the Underground Railroad

- Using history books or the Internet, research a famous person who used the Underground Railroad.
- Make a list of at least five interesting facts about that person.



Extension

- Using your list of facts, write a journal entry of a day using the Underground Railroad.
- Share your journal entry with a partner.

Things you need:

- computer
- history books
- pen and paper



- Suppose that you want to earn money by washing windows.
- Use a library to find information about how to make an inexpensive and safe window cleaner.
- Write down important details.

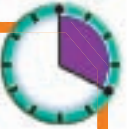
Extension

- Use your notes to write step-by-step directions.
- Draw a poster that illustrates each step.



Things you need:

- library resources
- pen and paper
- colored pencils or markers



- Before Thomas Edison's electric light bulb, people used many kinds of light sources.
- Use an encyclopedia or the Internet to find examples of different light sources before electricity.
- Make a time line to show your information.

Extension

- Write a list of safety hazards next to each light source on your time line.
- Display your findings for the class, and discuss the importance of using all technology safely.



Things you need:

- paper, pencil, markers
- reference sources



- Use an online encyclopedia and other reference materials to research different types of chili peppers and their heat index.
- Make a T-chart. On the top of the right side of the chart write TYPE OF PEPPER, and on the left side write HEAT INDEX.
- List each pepper and its heat level in the correct columns.

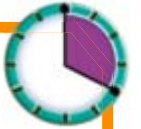


Extension

- Research a recipe that uses a type of chili pepper you found information about.
- Create a recipe card with each ingredient and steps for making the meal.

Things you need:

- computer and reference materials
- pen and paper



Native American Celebrations

- Research the types of celebrations Native American tribes had long ago.
- Use the Internet or history books to help you find information.
- Choose two different tribes and take notes about their different celebrations.



Extension

- Using your notes, create a Venn Diagram to compare and contrast the two tribes.
- Share with a partner.

Things you need:

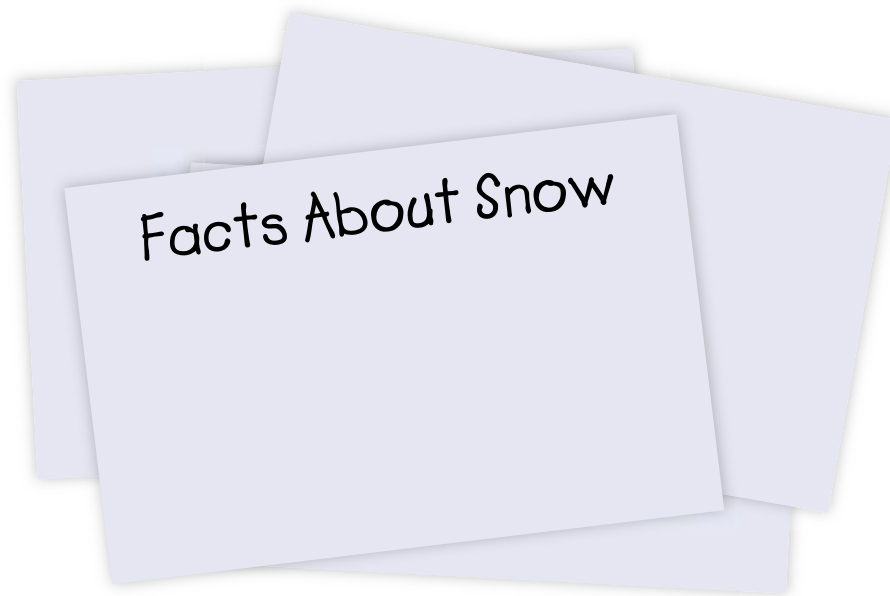
- computer and history books
- pen and paper



It's Snowing!




- Use a science book to find out why it snows.
- Where does the most snow fall in the United States? Why?
- Write a summary of the facts that you learn.



Extension

- Turn your facts about snow into a poem.
- Use a metaphor to write a fresh comparison about snow—for example, *The falling crystal flakes are powder on my face.*



Things you need:

- science book
- pen and paper



- Use a geography book or an almanac to learn more about the climate of your state.
- Find out how many inches of rain and snow your state receives annually.
- On a piece of paper, write the number of inches for three years in a row.

	2000	2001	2002
Inches of Snow	12	8	4
Inches of Rain	22	28	31

Extension

- Use figurative language, such as similes and metaphors, to describe how dry or wet your state is. For example, if you live in a dry state, you might write that your state is as dry as dust.

Things you need:

- geography book
- pencil and paper



How Dogs Help



- Use a computer to find out how dogs help people. Some dogs are trained to help people who have disabilities. Other dogs provide comfort and friendship.
- Make a list of the ways that dogs help people.

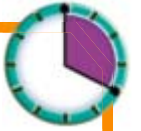


Extension

- Turn your list into a poster. Illustrate two or three ways that dogs help people.
- Write captions that give facts under each picture.

Things you need:

- online resources
- poster board and markers
- pen and paper



- Use a computer to research animal adoptions at a local animal shelter.
- Find out how many pets are placed in homes each month.

Extension

- Create a line graph based on your research. Put the name of each month at the bottom of the graph.
- On the side of the graph, list the number of pets that are adopted. Plot the numbers on the graph.



Things you need:

- online resources
- pen and paper
- ruler



- Use a computer to learn about various inventions that help people with physical challenges.
- As you read, write down terms you find, such as *blindness* and *wheelchair*.

Extension

- Use a dictionary to make a glossary for these terms.
- Write each in alphabetical order and give the definition of the word.



Things you need:

- dictionary
- online resources
- pen and paper



- Think about how computers make your life easier. Then use the Internet or other online resources to find out about the history of the computer, including who invented it.

Extension

- Write a short paragraph about why computers are so important.



Things you need:

- online resources
- pen and paper



Wind Farms



- Use a science book or an encyclopedia to research wind farms. Jot down important details.
- Make a KWL chart for information about wind farms. Remember to leave the last column blank.

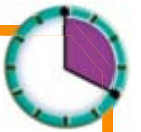
K	W	L
Wind power is a renewable energy source.	How can we use wind power as a renewable energy source?	

Extension

- Use your KWL chart to write a brief expository report on what you learned about wind farms as an energy source.
- Fill in the last column of your KWL chart.

Things you need:

- science books
- encyclopedias
- pen and paper



- Use the Internet and other resources to research the first uses of electricity to power machinery and light homes.
- Identify the most important details and write down notes.



Extension

- Using your notes, write a short report about the importance and many uses of electricity.

Things you need:

- computer
- reference materials
- pen and paper



- Use a science book to find out more about whales.
- Write at least five facts on a piece of paper.

Extension

- Use your facts to write a rhyming poem about whales.
- Choose whatever rhyme scheme you want.
- Illustrate your poem.



Things you need:

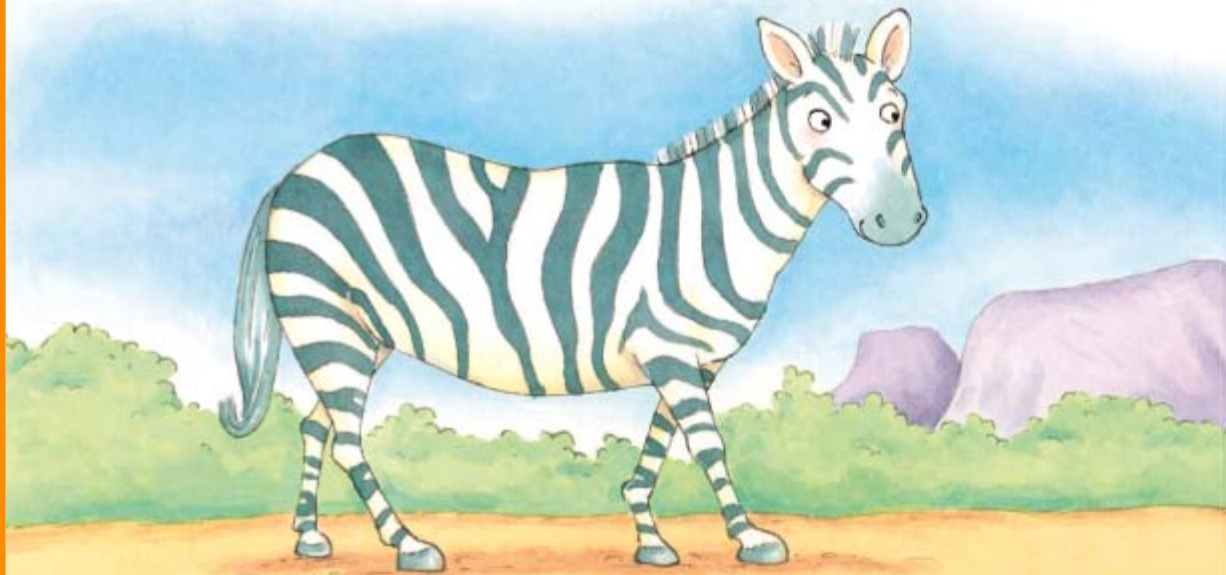
- science book
- pen and paper
- colored pencils or markers



- Use the computer to research the career of an animal photographer. Find out what skills are needed for this career.
- Make a list of the skills and qualifications a person needs.

Extension

- Choose an animal that you would like to photograph.
- Draw a picture of this animal.
- Write a caption describing the animal.



Things you need:

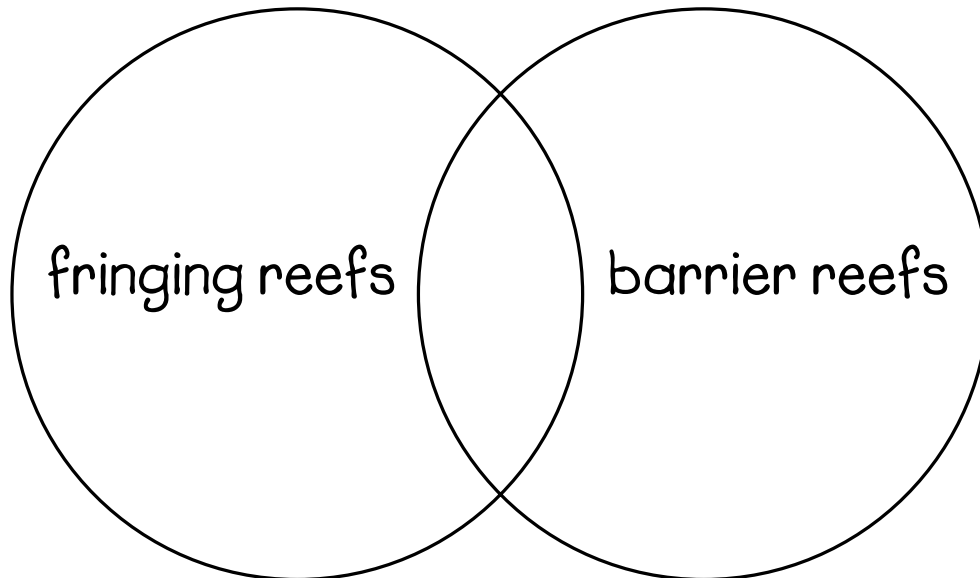
- online resources
- pencil and paper
- colored pencils or markers



- Look up coral reefs in an encyclopedia. There are three types of coral reefs. Choose two to research.
- Write facts about each type of coral reefs on note cards.

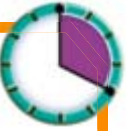
Extension

- Use your facts to make a Venn Diagram and compare and contrast the two types of reefs.



Things you need:

- encyclopedia
- note cards
- pen and paper



Atlantis

- Use a reference book to find out about the mythical lost city of Atlantis. Did this city really exist? Where might it have been located?
- Take notes about facts you learn.

Extension

- Use one of your facts and write an example of hyperbole, or exaggeration. For example, *Atlantis may have been destroyed by a wave two miles high.*



Things you need:

- reference books
- pen and paper



- Use an encyclopedia or the Internet to find facts about popcorn. What makes popcorn pop? Is it a special type of corn? How is heat distributed through the kernels?
- Write the facts you find on note cards.

Extension

- Using your note cards, draw and label a diagram that shows how popcorn pops.

Things you need:

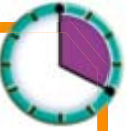
- encyclopedia or online resources
- note cards
- pen or pencil
- colored pencils or markers





Popping History

20 Minutes



- Use reference books or an online encyclopedia to find out when popcorn first became a movie theater snack.
- Take notes about what you learn.

Extension

- Take a survey of what your classmates enjoy eating at the movies. Write down your results.
- Present your results to the group in a fun way.



Things you need:

- reference books
- online resources
- pen and paper



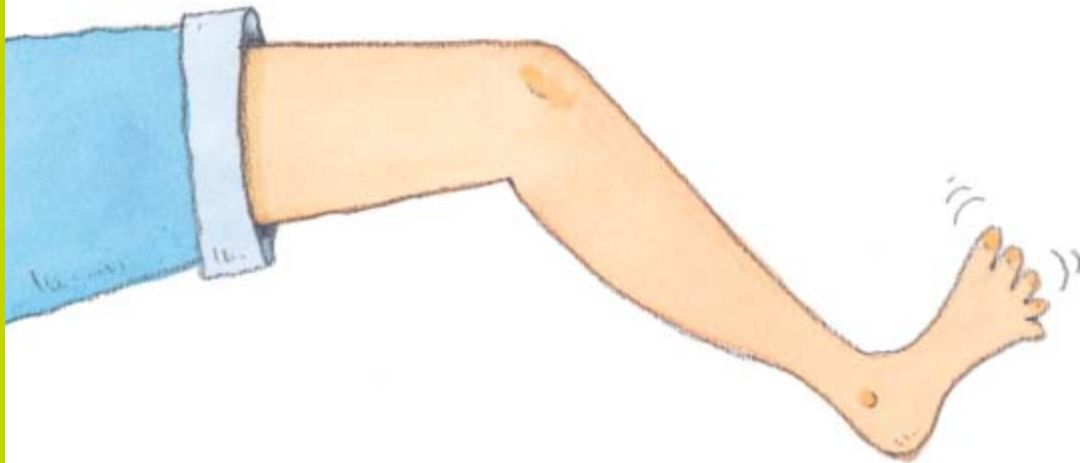
- Dancers need to bend, stretch, and jump. Look up information about joints in a science book.
- Use the chapter titles and subheadings to help you locate information. Write a paragraph about what joints do and how they help us move.

Extension

- Draw a diagram of a knee or elbow joint and label the parts.

Things you need:

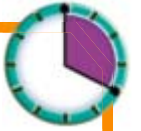
- science books
- pen and paper
- colored pencils or markers





An Actor's Life

20 Minutes



- Imagine that you could interview your favorite actor. What questions would you ask him or her?
- Write a list of five questions.

Extension

- Role-play the interview with a partner. One person should ask the questions, while the other answers them.

- 1) Where did you grow up?
- 2) What's your favorite color?
- 3) What's your favorite movie?

Things you need:

- pen and paper



Jellyfish



- Use reference materials to learn facts about jellyfish.
- Use the following questions as your focus. What is a jellyfish made of? Why does it sting? How do jellyfish survive in the ocean waters?
- Write a summary of the facts you find.

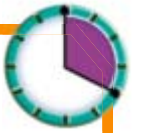
Extension

- Use the information in your summary to draw and label a diagram of a jellyfish.



Things you need:

- reference materials
- pen and paper
- colored pencils or markers



- Choose a well-known Spanish explorer, such as Ponce de Leon or Hernando Cortéz.
- Using reference materials, research and summarize facts about his life and travels.

Extension

- Use your facts to make a map of your explorer's travels.
- Remember to trace the route of his journey from the beginning to the end.

Things you need:

- reference materials
- pen and paper
- colored pencils or markers





A Color Wheel

20 Minutes



- Use a book about art to find out what a color wheel is.
- Make your own simple color wheel. Draw a circle and divide it into six parts. Draw and color in the three primary colors and the three secondary colors.



Extension

- Write directions that explain how to mix two primary colors together to make the colors orange, green, and purple.
- Illustrate each step of your directions.

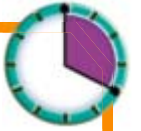
Things you need:

- books about art
- pen and paper
- colored pencils or markers



Monuments

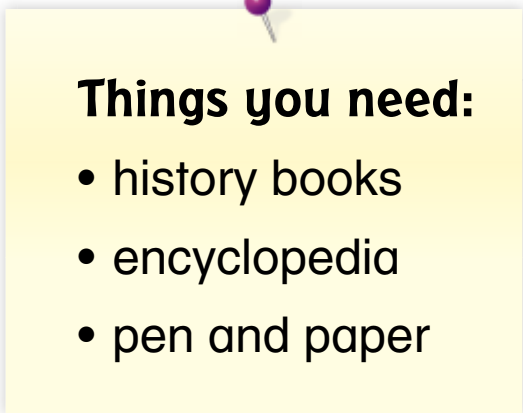
20 Minutes



- Use history books or an encyclopedia to look up information about a statue or monument you have seen or heard about.
- What important event or person does it honor?

Extension

- Write a description of this monument. Tell why it is important.



Things you need:

- history books
- encyclopedia
- pen and paper





- Using the Internet and other reference materials, look up the following information about one breed of horse, such as a Mustang or a Clydesdale.
- Where does this breed live? How would you describe the physical features of the breed? How is this breed of horse used today?



Extension

- Using the facts you found, write a magazine article about your breed of horse.
- Support your article with illustrations and captions.

Things you need:

- books on horses
- online resources
- pen and paper
- colored pencils or markers



- Use an encyclopedia or the Internet to find the answers to the following questions about horses.
- When were horses introduced into North America? Who brought them? How were they used?
- On note cards, write important facts you find.



Extension

- Use your note cards to help make a time line that shows the history of horses in North America.

Things you need:

- online resources
- encyclopedia
- note cards
- pen and paper



It's a Fact!



- Use an encyclopedia to look up information about gold. Make a list of at least five new things that you learned.

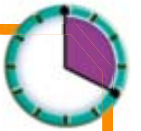
Extension

- Make up five True/False questions based on the facts you learned. Then ask a partner to answer them.



Things you need:

- encyclopedia
- pen and paper



- Use an encyclopedia to find out when events of the Gold Rush took place in California. Make a list of these events and their dates.

Extension

- Using your list, create a time line that includes at least five important dates of the California Gold Rush.
- Illustrate your time line.



Things you need:

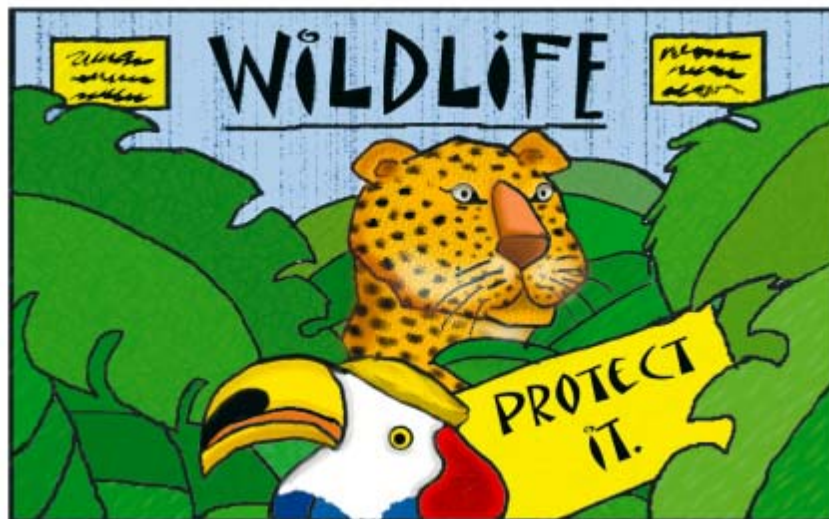
- encyclopedias
- pen and paper
- colored pencils or markers
- ruler



- Using an encyclopedia, research an animal that is considered to be endangered.
- Write at least five facts on note cards about what you learn.

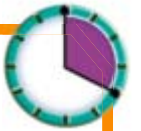
Extension

- Using your facts, create an advertisement that persuades people to protect the endangered species.



Things you need:

- encyclopedia
- note cards
- pen and paper
- colored pencils or markers



- Using the Internet or reference books, research how wildlife creatures are used to symbolize or represent different things. For example, the eagle is a symbol of freedom.
- Write down the facts you find.



Extension

- Using your facts, illustrate a poster that includes your symbol, where it can be found, and what it represents.

Things you need:

- online resources or reference books
- pen and paper
- colored pencils or markers



TREE PARTS



- Use an encyclopedia or library book to find information about the parts of a tree.
- Write at least one fact about each part.

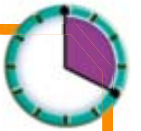


Extension

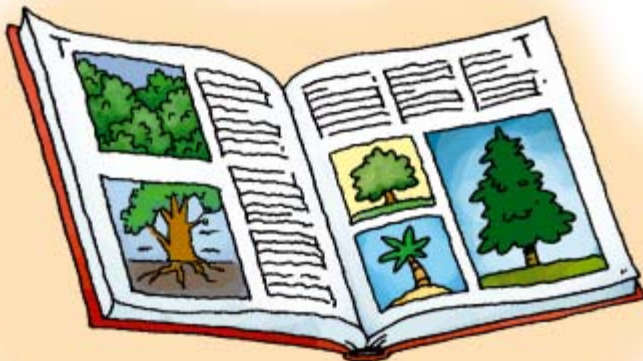
- Draw a diagram of a tree and add labels. Under the diagram, write a paragraph about trees based on the information you read and the facts you learned.

Things you need:

- encyclopedia or library book
- pen and paper



- Suppose that a park is being planned for your community. What kind of trees should be planted?
- Look up facts about the trees that grow in your town.
- Choose three kinds of trees that you think should be planted in the park. Write a paragraph supporting your choices.



Extension

- Write a persuasive letter to the mayor of your town explaining why you think it is important to have these trees in the new park.

Things you need:


- encyclopedias and other reference materials
- pen and paper



- Choose one landform, such as a body of water, a mountain range, desert dunes, a volcano, a plateau, or an island.
- Use an encyclopedia or a science book to research the landform. Where is it found? How was it created?
- Write short fact cards about the landform.

Extension

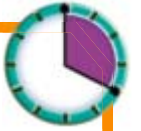
- Using your fact cards, test a partner's knowledge of the landform. Can they guess what it is?



Things you need:

- encyclopedia or science book
- note cards
- pen and paper





History Comes to Life

- Think of a national monument or a famous statue.
- Using an encyclopedia or the Internet, research fun facts about the monument or the statue. Write a summary of what you find.



Extension

- Draw the monument or statue and include captions using facts from your summary.

Things you need:

- encyclopedias and online resources
- pen and paper
- colored pencils



Being Healthy



- Using different resources and your own knowledge, brainstorm ways a person can stay healthy.
- Write a list of tips for living a healthy lifestyle.

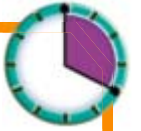
Extension

- Use your list to illustrate a poster advertising healthy habits. Be creative and use descriptive language.

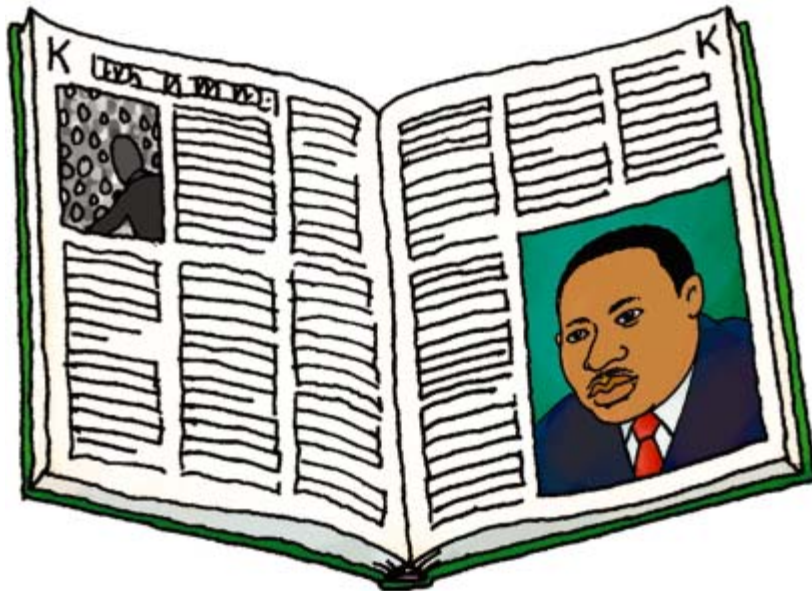


Things you need:

- reference books
- pen and paper
- colored pencils or markers



- Think of a person you admire from history. What did that person do? Did he or she act bravely? Use an encyclopedia or reference book to learn about that person's life.
- Write a short biography of that person's life.



Extension

- Write a few more sentences describing the lesson or moral that the person's life has taught you.

Things you need:

- encyclopedias and other reference books
- pen and paper