A Total Curriculum Guide to Teach Your Child at Home

From the Editors of American Education Publishing

GRADE 6

Learn at Home

Reading, Language Skills, Spelling, Math, Science & Social Studies

A Full School Year of Lesson Plans • Teaching Suggestions • Reproducible Activity Sheets • Full Color

	Language Skills	Spelling	Reading
Monday	Have your child write a story about a mythical beast. Encourage your child to imagine how the beast looks and acts, its name and where it lives. Have your child imagine the problem and events of the story, make a plan for writing, then begin work on a rough draft.	Pretest your child on these spelling words: beast, beneath, breathe, defeat, disease, eavesdrop, freak, greasy, increase, lease, leave, meager, plead, release, repeat, scream, weave, wreath Correct the pretest, add personalized words and make two copies of this week's study list.	Introduce this week's reading selection or continue with the book from last week.
Tuesday	**Pronouns:** Review *pronouns*. Teach your child about four types of pronouns: *subject, object, possessive* and *indefinite*. *See* Language Skills, Week 10, number 1. Have your child create a four-column chart to list the pronouns in each category. Then, discuss the correct usage of each type of pronoun.	Study this week's spelling words. Have your child complete **Easygoing** (p. 117).	Discuss the current reading book in a conference. Focus on reading with expression.
Wednesday	Help your child identify possible pronoun errors in his/her own writing. The most common error is to confuse subject and object pronouns. Have your child complete **Pronoun Blunders** (p. 114).	Have your child use each of this week's spelling words correctly in a sentence.	**Scanning Text:** Teach your child the skill of scanning text. Demonstrate how to use an index card or your fingertips to guide your eyes as you read quickly through text. The goal is not to read every word but to look for a signal. When you find that signal, you can slow down and read carefully. *See* Reading, Week 10, numbers 1 and 2.
Thursday	Introduce reflexive pronouns: *myself, yourself, herself, himself, itself, ourselves, yourselves* and *themselves*. A reflexive pronoun reflects the action of a verb back to the subject. Write some examples on the chalkboard. Have your child draw a line under the reflexive pronoun and draw an arrow back to the subject. Have your child complete **Reflexive Pronouns** (p. 115).	Have your child study this week's spelling words.	Have your child scan the newspaper for an article on literacy. Then, have him/her read the article and write a summary.
Friday	Introduce personal, interrogative and relative pronouns. *See* Language Skills, Week 10, number 2. Have your child complete **Pursuing Pronouns** (p. 116).	Give your child the final spelling test. Have your child record pretest and final test words in his/her word bank.	Hold a reading conference in which you compare this week's reading book with another book. Ask your child to compare the settings, the characters, the styles of the authors and the conflicts faced by the main characters.

Math	Science	Social Studies
Division With your child, review simple rules for determining if a number can be divided evenly by 2, 3, 5, 9 and 10. *See* Math, Week 10, number 1. Have your child write down the ages of several family members, then list all the numbers by which each age is divisible. Have him/her try the same with other numbers found in the newspaper or around the house.	**Chemistry** Introduce your child to the science of chemistry. *See* Science, Week 10, numbers 1 and 2. Have your child draw a picture of a chemist in his/her Science Log. Then, have your child write a paragraph describing what he/she thinks a chemist does or studies.	**Immigration** At the turn of the century, many European immigrants came to America through New York City. They came to the U.S. because it was known as the land of opportunity. Families sailed across the ocean in ships to Ellis Island. Have your child read *Ellis Island: New Hope in a New Land* by William Jay Jacobs. Gather other books as well for your child to read more about Ellis Island.
Review the idea that division is the opposite operation of multiplication. Ask your child to demonstrate this concept. Have your child complete **Mr. Quotient's Class Divides** (p. 118).	What is matter? Explain that matter is anything that occupies space and can be observed by at least one of the senses. There are three states of matter: solid, liquid and gas. Perform a simple demonstration to show your child the three states of matter. *See* Science, Week 10, number 3. Have your child identify the states of matter of several substances, such as those listed in Science, Week 10, number 1.	Many immigrants' first sight of America was the Statue of Liberty. Have your child read about the Statue of Liberty. Where did it come from? What did it symbolize? Have your child add the year the statue was installed (1886) to the time line. Have your child read the poem inscribed on the pedestal of the statue. (It was added in 1903.) Ask your child to memorize the poem—or at least the final six lines of the poem—for tomorrow.
Many children find division especially difficult. Review the steps involved to solve a sample division problem. *See* Math, Week 10, number 2. Have your child complete twelve division problems. *See* Math, Week 10, number 3.	Help your child set up an experiment to discover whether hot or cold water freezes faster. Have your child read the information on **Freezing Hot Water** (p. 119) and plan the experiment. Your child will actually perform the experiment tomorrow. It is very important that he/she is deliberate in the planning.	Discuss why some immigrants were resented. *See* Social Studies, Week 10. Discuss some of the laws that were adopted to restrict the number of Asians and Europeans allowed to enter the United States. Have your child consider the issue of immigration carefully. What are his/her opinions on the issue? Should there be restrictions regarding who is allowed to enter the U.S.? *See* Social Studies, Week 10, numbers 1–6.
Review how to check division. Multiply the divisor by the quotient and add the remainder. Have your child check his/her work from yesterday using multiplication and addition.	Have your child perform his/her experiment and record the results on a chart or table. Ask him/her to include comments about where the ice freezes first in each ice cube tray. Then, have your child draw a conclusion from the experiment. Was his/her hypothesis correct?	At the turn of the century, New York City contained several ethnic neighborhoods. When immigrants arrived, they sought out others who had come from the same country and settled near each other in tenement houses. Have your child read about life in one of these ethnic neighborhoods. Have him/her write a journal entry as a young immigrant (near your child's own age) living in New York in the early 1900s.
Ask your child to generate twelve division problems, all with a quotient of 25. **Examples:** 125 ÷ 5 16,025 ÷ 641 475 ÷ 19	Help your child conduct a black box experiment. To make a black box, cover a small box and its cover with black construction paper. Make sure the cover is removable. Place one object (marble, nail, paper clip, cotton ball, juice box) at a time in the box. Put a large rubber band around the box to keep it closed. Ask your child to shake the box and describe the attributes (and state of matter) of the mystery object inside.	Have your child complete the activity sheet on the stock market begun in Week 7. Discuss the information. Arrange for your child to perform a community service. Have your child write in his/her Social Studies Journal.

TEACHING SUGGESTIONS AND ACTIVITIES

LANGUAGE SKILLS (Pronouns)

1. Teach your child to recognize four types of pronouns: *subject, object, possessive* and *indefinite*.

   Subject: I, you, he, she, it, we, they

   Object: me, you, him, her, it, us, them

   Possessive: my, your, his, her, its, our, their (indicates ownership of noun that follows)
   mine, yours, his, hers, its, ours, theirs (used alone without noun following)

   Indefinite: anybody, somebody, everybody, something, anyone, someone, everyone, no one

2. *Personal pronouns* take the place of one or more nouns. **Examples:** *I, him, they, she, we, it*
   Interrogative pronouns introduce questions. **Examples:** *Which, what, where, when*
   A *relative pronoun* introduces a phrase that acts like an adjective. **Example:** The first astronauts *who* were chosen for the space program needed to have a degree in engineering.

READING (Scanning Text)

1. Scanning is a skill that can be used to locate specific information. A person may scan a newspaper looking for interesting topics or scan a book about frogs for information on what they eat. Scanning is not the same as reading. Discuss instances when your child would want to scan text rather than read carefully.

2. Give your child the following resources and directions to practice scanning.

   Nonfiction books: Look for an answer to a specific question.

   Newspapers: Look for an article on a given topic.

   Word lists: Look for a given word.

   Word search: Look for words on a list.

   Internet: Locate an article on a given topic.

MATH (Division)

1. The following hints will help your child determine the divisibility of a number:

   A number is divisible by 2 if it is even (ends in 0, 2, 4, 6, 8).

   A number is divisible by 5 if it ends in a 0 or 5.

   A number is divisible by 10 if it ends in 0.

   A number is divisible by 3 if the sum of the number's digits is divisible by 3.

   A number is divisible by 9 if the sum of the number's digits is divisible by 9.

2. Review the process of division. The steps are explained here for the auditory learner.

   a. Determine where to place the quotient.

   b. Estimate how many times the divisor divides into the first one or two digits in the dividend and place this number in the quotient.

   c. Multiply the number you placed in the quotient by the divisor and place the product below the portion of the dividend with which you are working. If the product is larger than the portion of the dividend with which you are working, estimate a smaller quotient.

   d. Subtract the product from the portion of the dividend with which you are working. If the difference is larger than the divisor, estimate a larger quotient.

   e. Bring down the next digit in the dividend.

   f. Repeat the above steps until all the numbers have been brought down from the dividend.

   g. Write the final difference as a remainder.

   These steps are usually summarized as DIVIDE, MULTIPLY, SUBTRACT and BRING DOWN.

3. Have your child write the following twelve division problems on lined paper and solve.

3,216 ÷ 8 (402)	11,336 ÷ 52 (218)	933 ÷ 22 (42 R9)	15,552 ÷ 64 (243)
462 ÷ 33 (14)	2,467 ÷ 30 (82 R7)	1,248 ÷ 18 (69 R6)	24,314 ÷ 27 (900 R14)
7,155 ÷ 9 (795)	11,346 ÷ 36 (315 R6)	8,046 ÷ 9 (894)	618 ÷ 4 (154 R2)

SCIENCE (Chemistry)

1. Gather and display the following items for your child: a glass of water, copper wire, a piece of aluminum foil, a penny, a light bulb, household ammonia, baking soda, a match, a carbonated beverage, an inflated balloon and table salt. Explain that each of these items represents a form of matter and that matter is made up of elements. The science of chemistry is the study of the elements that make up all matter in the universe and the reactions that occur among them. Everything in the universe is composed of specific substances called elements. Each element has its own unique properties and characteristics. As an introduction, tell your child the following facts that may sound familiar:

   Water (H_2O) contains the elements hydrogen and oxygen.

   Copper wire and aluminum foil are metallic elements.

   A penny is a mixture of copper and zinc.

   Baking soda contains sodium, carbon, hydrogen and oxygen.

   A carbonated beverage contains water and carbon dioxide gas.

   An inflated balloon contains a mixture of oxygen, nitrogen and other gases.

2. Add the following chemistry terms to the weekly spelling lists as they are discussed. Over the next 8 weeks, your child should come to understand each of these terms. As each word is introduced, have your child define it in his/her spelling word bank.

acid	base	ion	molecule	periodic table
atom	compound	matter	neutron	proton
atomic mass	electron	metal	nonmetal	salt
atomic number	element	mixture	nucleus	solution

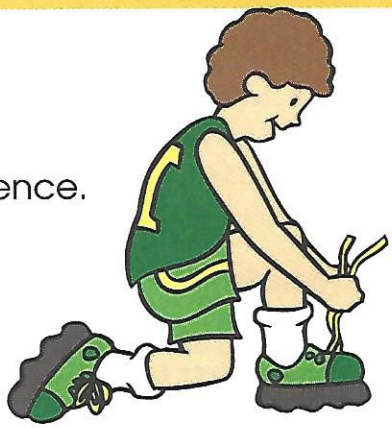
3. Hold a tray of ice cubes over a steaming pot of water. Have your child observe what happens (condensation). Ask your child where the water is coming from. (The steam is cooling and returning to a liquid state.)

SOCIAL STUDIES (Immigration)

Some people feel that the influence of immigrants is negative. Citizens worry about job competition. They believe that immigrants lower wages because they are willing to work for less money. Others blame immigrants for overcrowding, poverty and crime. Some people even resent immigrants because they are different: they speak different languages, eat different foods and practice different customs and religions.

1. List standards you believe immigrants must comply with in order to gain entry into the U.S.
2. List reasons you think are valid to deny an immigrant entry into the U.S.
3. Express your opinion about immigration laws and quotas. Should they exist?
4. Describe what the U.S. would be like if, after the colonists declared their independence from England, no more immigrants had been allowed to enter the U.S.
5. What might America have missed had the following immigrants not been allowed to enter the U.S.: John Astor, Irving Berlin, Andrew Carnegie, Walter Gropius, Meyer Guggenheim, Joseph Pulitzer, David Sarnoff.
6. Have your child recite the poem inscribed on the pedestal of the Statue of Liberty. Ask your child to reflect on the meaning of these words.

Pronoun Blunders



Three errors are often made when using pronouns. Follow the rules below to avoid these errors.

Do not use an object pronoun as the subject of a sentence.

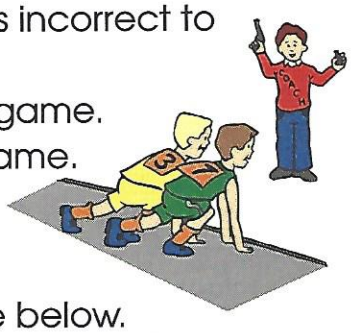
Incorrect: Us are playing hockey.
Correct: We are playing hockey.

Do not add extra pronouns that duplicate the subject.

Incorrect: Bonnie, she has won the tennis match.
Correct: Bonnie has won the tennis match.

In a sentence with a compound subject, it is incorrect to put the pronoun **I** before the noun.

Incorrect: I and Sheila will attend the game.
Correct: Sheila and I will attend the game.



Rewrite each sentence correctly on the line below.

1. I and Mr. James were planning the school Sports Day. _____

2. Mrs. Shawn and Mrs. Thompson they volunteered to help Mr. Thompson and me with the concession stand. _____

3. I and Mrs. Thompson will also prepare the food. _____

4. Bob, he will make arrangements for all the sports equipment. _____

5. We had challenged them the eighth graders to a game. _____

6. Us were forming a relay team. _____

7. John will time we in the races. _____

8. John, he has been involved in many races. _____

Reflexive Pronouns

Reflexive pronouns reflect the action of the verb back to the subject.

Myself, yourself, herself, himself, itself, ourselves, yourselves and themselves are reflexive pronouns.

Examples: Roger made **himself** a model of the space shuttle.
The shuttle landed **itself**, using only gravity to pull it down.

Complete each sentence with the appropriate reflexive pronoun.

1. The Davenport children congratulated _____ on the good spot they found.
2. We sure found _____ a good viewpoint from which to watch the shuttle landing.
3. David imagined _____ trying to maneuver in a space shuttle that was hurtling toward earth.
4. "I told _____ that I will become a commander someday," Earl said.
5. Deborah enjoyed _____ at the shuttle launch.
6. "You could train _____ for space travel if you built a model simulator," David's parents suggested.

Write the reflexive pronoun from the box that matches each subject listed below.

1. Peter _____
2. The dog _____
3. Gwen _____
4. Monica and I _____
5. Heather and Kimberly _____
6. You and Carolyn _____
7. I _____
8. You _____

myself
yourself
himself
yourselves
themselves
itself
herself
ourselves

Pursuing Pronouns

A **personal pronoun** takes the place of one or more nouns. An **interrogative pronoun** introduces a question. A **relative pronoun** introduces a group of words that acts as an adjective.

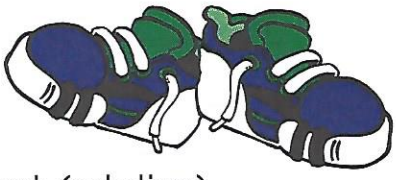
Examples: **I** am excited about the track meet today. (personal pronoun)

What event does Bill plan to enter? (interrogative pronoun)

The track meet, **which** we went to last week, was an exciting event. (relative pronoun)

Write personal, interrogative or **relative** in the blank to identify each pronoun.

1. **Which** sprinting race is your favorite? _____
2. **We** both like the same type of running shoes. _____
3. The high jump is a challenge **that** I would like to take on. _____
4. **Who** would like to warm up with me? _____
5. A boy **whom** I knew won the track meet. _____
6. **You** are a natural when it comes to long-distance running. _____
7. Is it true that **she** would like to join our running club? _____
8. **Whose** house should the team go to for the end-of-the-year party? _____



Complete each sentence with a pronoun.

1. I tried to find my shoes _____ were lost. (relative)
2. _____ told us it won't be a problem for them to run today. (personal)
3. The boy _____ won the race is a great runner. (relative)
4. _____ would like to be our fourth runner in the relay race? (interrogative)

Easygoing

beast
beneath
breathe
defeat
disease
eavesdrop
freak
greasy
increase
lease
leave
meager
plead
release
repeat
scream
weave
wreath

Write each spelling word next to either its antonym or its synonym. Use a thesaurus if necessary.

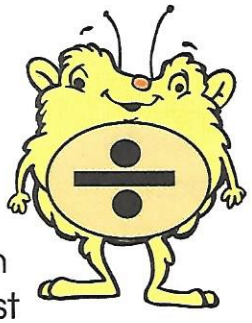
1. _____ ample
2. _____ hold
3. _____ above
4. _____ victory
5. _____ health
6. _____ arrive
7. _____ decrease

1. _____ oddity
2. _____ animal
3. _____ braid
4. _____ rent
5. _____ overhear
6. _____ slick
7. _____ garland
8. _____ inhale
9. _____ beg
10. _____ yell
11. _____ say again

List four more words that contain the long **e** sound of **ea**. **Write** either an antonym or a synonym for each word. Label each one **A** (antonym) or **S** (synonym).

	New Word	**A/S**
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Mr. Quotient's Class Divides



Mr. Quotient's class was studying division. Help them solve the following problems.

1. Use the numbers 0, 3, 4, 5, 6, 7, 8 and 9. Using three different numbers, write the largest possible 3-digit divisor using the 6 in the tens place. With the remaining numbers, write the smallest dividend using the 5 in the ten-thousands place. What is the quotient?

   _____

2. There were 3,192 people in attendance at the football game. There were 45 bleacher rows in the stadium. If 84 people could sit in each bleacher row, did everyone have a seat?

   _____

3. There were 1,848 candy bars available for the candy sale. There were 154 students ready to sell them. To keep sales equal, how many candy bars should be put in each salesperson's box?

   _____

4. Marathon Mike worked 7,272 problems in 36 weeks. How many did he average each week?

   _____

5. Mr. Quotient's class collected a total of 972 leaves for a science project. There were 27 students in the class. What was the average number each student collected?

   _____

6. Shanna wrote 144 Spanish vocabulary words during the months of April and May. How many words, on average, did she write each week during those months?

   _____

Extension: 96,785,642 ÷ 24 ÷ 35 ÷ 3 = _____

Freezing Hot Water

Some people say that hot water freezes faster than cold water. What do you think? Could this be possible? Doesn't water have to get colder before it can freeze? If so, it would make more sense to start with very cold water when you want to make ice. But did you know that between the periods of a hockey game the ice is resurfaced with hot water? Could it be that hot water does freeze faster than cold water under certain conditions? Let's find out!

State the Problem:
Write a question that asks what you want to find out from your investigation.

Form a Hypothesis:
What do you think your scientific investigation will prove? Make a smart guess. Write a sentence that states what you think the answer to your question will be.

Plan the Procedure:

1. Before a scientist begins experimenting, he/she usually does some research on the topic to find what other scientists have learned. This information is used to plan the procedure for the experiment. Finding the answer to the following questions will help you understand water and how it "behaves":

   a. What is a water molecule? b. What are the three forms (states) of water? c. At what temperature does each form of water change into a new form?
2. Here is an example of how you could do the experiment. Take two identical ice cube trays and fill them to the same level with water, one with hot, the other with cold. Use a thermometer to record the water temperature. Place the trays in the freezer and check them at 5 minute intervals. Note which one has ice crystals forming first.

   When designing a test for your hypothesis, it is very important that you control all the variables. For example, use the same kind of container for each trial and put the container in the same spot in the freezer each time.
3. Write a step-by-step description of your experiment.
4. Make a detailed list of materials.

	Language Skills	Spelling	Reading
Monday	Have your child choose a topic, make a plan for writing, then begin work on a rough draft.	Pretest your child on these spelling words: beige, caffeine, conceit, conceive, foreign, forfeit, freight, heifer, height, leisure, neither, perceive, protein, receipt, receive, seizure, skein, weight Correct the pretest, add personalized words and make two copies of this week's study list.	Teach your child to preview a book to determine if it interests him/her. Previewing may include reading the inside flap of the book's jacket, the table of contents and/or the first page. Give your child two books by the same author to preview. Discuss your child's first impressions of the two books. Have him/her select one of the books to read this week.
Tuesday	**Prepositions:** Review *prepositional phrases*. *See* Language Skills, Week 11, number 1. Discuss how prepositions, adverbs and the infinitive forms of verbs are sometimes confused. *See* Language Skills, Week 11, number 2. Have your child complete **Preposition, Adverb or Verb?** (p. 124).	Study this week's spelling words. Have your child complete **Missing Freight** (p. 126).	Discuss the current reading book in a conference.
Wednesday	Continue your discussion of prepositions and prepositional phrases. Have your child complete **Prepositional Phrases** (p. 125).	Have your child use each of this week's spelling words correctly in a sentence.	**Compare and Contrast:** Discuss different methods of comparing and contrasting. Have your child compare two books using a Venn diagram. *See* Reading, Week 11, number 1.
Thursday	**Participles:** Introduce your child to the *present* and *past participle*. *See* Language Skills, Week 11, number 3. Have your child write eight sentences containing present participles and eight sentences containing past participles.	Have your child study this week's spelling words.	Have your child compare two books using a chart or pair of lists. *See* Reading, Week 11, number 2. Discuss the advantages and disadvantages of the list format versus the Venn diagram. Which method of comparison does your child prefer? Why? Have your child complete **What's the Difference?** (p. 127).
Friday	Have your child gather his/her best or favorite stories, articles, art and poetry from this school year. Help him/her compile them into a literary magazine. Make copies of the completed magazine and send to friends and family members. *See* **Publishing Your Child's Work**. (p 5).	Give your child the final spelling test. Have your child record pretest and final test words in his/her word bank.	Hold a reading conference. With your child, discuss the types of books he/she likes to read. Choose other books of a similar type for future reading assignments.

Math	Science	Social Studies
Division A remainder can be written as a fraction. Teach your child how to write the remainder as a fractional part of the quotient. *See* Math, Week 11, number 1. Have your child complete the division problems provided, writing the remainders as fractions. *See* Math, Week 11, number 2.	**Elements** What is an element? Explain to your child that matter is made up of basic elements. *See* Science, Week 11, number 1. Have your child separate a mixture of candy, nuts and raisins into the three elements. Then, have him/her make a graph of the elements. The graph should show how many of each element was found in a given quantity of the mixture.	**Turn of the Century** The turn of the century was a time of great expansion for the U.S. Many immigrants continued to settle in the U.S. The U.S. sought land to colonize and annex. The U.S. began to produce enough goods to begin exporting to other countries. Have your child write about what it means to be a world power. Why was the U.S. interested in other countries?
Give your child a series of quotients with remainders. Have your child write a division problem that will result in each quotient. **Examples:** 3 R1 $10 \div 3$ 5 R4 $299 \div 59$	Have your child separate a mixture of sand and rice. What is the easiest method for separating? Can you think of another method? Do you need some other tools?	The Spanish-American War occurred in 1898. Have your child add this date to the time line. Have your child read about the war and define related terms. *See* Social Studies, Week 11, number 1.
Following the correct order of operations, your child would normally multiply and divide from left to right before adding and subtracting from left to right. For the purpose of today and tomorrow's activities, however, your child must disregard the rules of order and simply work from left to right. Have your child complete **Missing Signs** (p. 128).	Introduce your child to the periodic table of the elements found in any encyclopedia. There are 109 basic elements which make up all matter. This is a very bad idea!	Provide your child with six essay topics related to the Spanish-American War. *See* Social Studies, Week 11, number 2. Have your child write an essay on one of the topics.
Have your child complete **A Number Challenge** (p. 129).	Introduce the term *atom* and teach your child about the parts of an atom. Discuss the structure of an atom. *See* Science, Week 11, number 2. Have your child build models of atoms using jelly beans or marshmallows. *See* Science, Week 11, number 3.	Write facts about the tenures of Presidents McKinley and T. Roosevelt on index cards and attach the cards on the time line.
Challenge your child to come up with number pairs for given clues. *See* Math, Week 11, number 3.	Have your child read about the work of Dmitri Mendeleev. Discuss how his work led to the creation of the periodic table. Have your child study the arrangement of the elements on the periodic table. *See* Science, Week 11, number 4.	Arrange for your child to perform a community service. Have your child write in his/her Social Studies Journal.

TEACHING SUGGESTIONS AND ACTIVITIES

LANGUAGE SKILLS (Prepositions/Participles)

1. Brainstorm a list of prepositional phrases (under the couch, to the store, in the box). Have your child underline the noun or pronoun at the end of each prepositional phrase. Explain that the noun or pronoun is the *object* of the prepositional phrase.

2. Write sentences in which the word *to* is used as part of a prepositional phrase or as part of an infinitive. Have your child identify the difference.

   We went *to the sale* yesterday. He was talking *to my uncle.*

   Sam sold candy *to raise* money. He planned *to buy* a bike with the money he made.

3. A participle is a verb that can also act as an adjective. The present participle ends in *ing.* The past participle usually ends in *ed.*

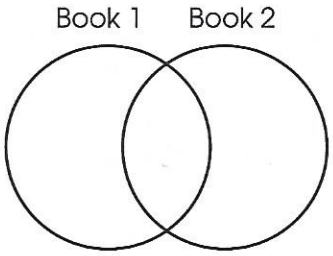
   The *snoring* man makes a lot of noise. (present adjective) The man is *snoring.* (verb)

   The *struck* bird fell to the ground. (past adjective) The bird struck the window. (verb)

READING (Compare and Contrast)

1. Draw a Venn diagram, a pair of intersecting circles used for comparisons. Write the name of one book over the left circle and the name of the other book over the right circle. Discuss how the books are alike. Have your child write the similarities in the part of the diagram where the circles overlap and write ways each book is unique in the corresponding circles.

2. Have your child choose two books to compare—one book that he/she liked and one book that he/she did not like. Have him/her draw a line down the middle of a page and write the name of one book at the top of each column. Ask your child to list what he/she liked and disliked about each book. Discuss your child's list and come to a conclusion about what kind of books your child likes to read.



Venn diagram

MATH (Division)

1. Have your child solve the division problem 125 ÷ 60. The answer is 2 R5. The remainder can be written as a fractional part of the quotient by placing it over the divisor. The answer becomes $2\frac{5}{60}$ or $2\frac{1}{12}$.

2. Copy the following division problems (and others) for your child to solve. Have him/her write the remainders as fractions.

45 ÷ 6 ($7\frac{1}{2}$)	82 ÷ 9 ($9\frac{1}{9}$)	135 ÷ 10 ($13\frac{1}{2}$)
72 ÷ 7 ($10\frac{2}{7}$)	39 ÷ 6 ($6\frac{1}{2}$)	245 ÷ 12 ($20\frac{5}{12}$)

3. Read the following clues, one at a time. Have your child try to guess the number pair described in each clue. The answers are given in parentheses.

   a. What pair of numbers has a sum of 9 and a quotient of 2? (6 and 3)

   b. What pair of numbers has a difference of 3 and a quotient of 4? (1 and 4)

   c. What pair of numbers has a sum of 12 and a quotient of 2? (8 and 4)

   d. What pair of numbers has a difference of 2 and a quotient of 2? (4 and 2)

   e. What pair of numbers has a product of 50 and a quotient of 2? (5 and 10)

   f. What pair of numbers has a product of 72 and a quotient of 2? (6 and 12)

   g. What pair of numbers has a product of 24 and a quotient of 6? (2 and 12)

   h. What pair of numbers has a difference of 21 and a quotient of 8? (24 and 3)

   i. What pair of numbers has a sum of 24 and a quotient of 3? (6 and 18)

SCIENCE (Elements)

1. It is difficult to show your child examples of things that are made up of single elements. Most things are mixtures, or combinations of two or more elements. Even something as basic as water is made up of two elements: hydrogen and oxygen. Help your child understand that elements are the building blocks that make up matter. This week, provide your child with different mixtures and ask him/her to separate the mixtures by logical methods. Methods may be as simple as sorting or using a strainer or as complicated as using heat and evaporation to bring out dissolved substances.

2. An *atom* is the smallest particle of an element that can exist and still retain the element's properties. Atoms are so small that millions could be placed on the tip of a straight pin. Every atom in a given element contains the same arrangement of *protons, neutrons* and *electrons. Protons* are positively charged particles found in the nucleus. *Neutrons* are neutral particles also found in the nucleus. *Electrons* are negatively charged particles found in rings or shells around the nucleus. Each shell can hold a certain number of electrons. (See an encyclopedia for more information on electron shells.)

3. Help your child make a large model of an atom. Draw a 3-inch circle on white paper to represent the nucleus of the atom. Use three colors of marshmallows or jelly beans to represent the three types of particles found within an atom. The candies representing protons and neutrons should be placed in the nucleus; the candies representing electrons should be placed in rings around the nucleus. Have your child build several different atoms. The makeup of some common atoms is given here.

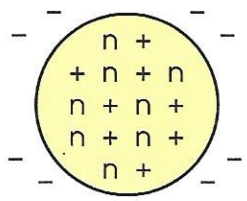
   oxygen atom: 8 protons (+), 8 neutrons (n), 8 electrons (–)

   nitrogen: 7 protons, 7 neutrons, 7 electrons

   helium: 2 protons, 2 neutrons, 2 electrons

   sodium: 11 protons, 12 neutrons, 11 electrons

   fluorine: 9 protons, 10 neutrons, 9 electrons



4. The 109 elements on the periodic table are arranged in rows by *atomic number.* Each horizontal row is called a *period.* Elements are also arranged vertically in *groups* with similar characteristics. Those groups will be studied in Week 13.

SOCIAL STUDIES (Turn of the Century)

1. Have your child define each of the following terms as they relate to the Spanish-American War: *rebels, insurrection, yellow journalism, oppression, U.S.S. Maine, Battle of Manila Bay, Rough Riders, Theodore Roosevelt, Santiago, armistice, Treaty of Paris, anti-imperialism.*

2. Allow your child to choose from the following essay questions on the Spanish-American War. Have him/her write a short, factual essay in response to the question.

   Discuss why the *U.S.S. Maine* was in Cuba and the controversy surrounding its destruction. Include information about and samples of "yellow journalism."

   Point out where the main battles of the war were fought. Explain why the battles were on opposite sides of the world.

   Discuss the causes of the war and its outcomes.

   Define imperialism. Discuss whether or not it was ethical to go to war.

   Make a time line of the Spanish-American War beginning with the explosion of the **Maine** and ending with the signing of the Treaty of Paris.

   Explain why the Panama Canal was built.

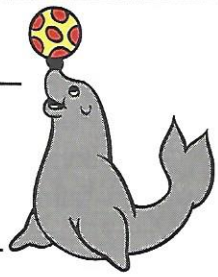
Preposition, Adverb or Verb?

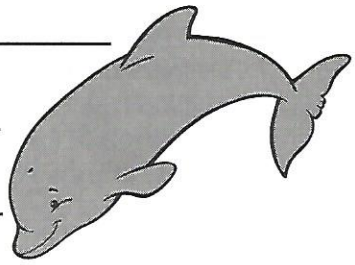
Don't confuse prepositions with adverbs or with phrases made of **to** plus a verb.

Examples: All the students went **to** the zoo. (preposition)
We really wanted **to** go. (verb part)
We started getting excited **before** the trip. (preposition)
Have you gone to the zoo **before**? (adverb)

Identify each **bold** word as a preposition, adverb or verb part.

1. It was incredible how they had trained the animals **to** move like that! _____
2. A monkey followed me **to** the concession stand. _____
3. A beautiful dove flew **around** the audience. _____
4. A seal tossed a ball **around** to show off. _____
5. We took pictures of the walrus **before** the show. _____
6. I had never seen a walrus up close **before**. _____
7. The walrus waddled beyond the stage over **to** the audience. _____
8. My friends were brave, and they decided **to** stay and pet him. _____
9. David asked us, "Who wants **to** see the Dolphin Show at 2:00?" _____
10. The whale catapulted **to** the top and grabbed the fish. _____
11. The monkeys would have liked **to** swing through the trees. _____
12. I looked **up** when I heard the parrot talk. _____
13. I noticed a pigeon flying **around**. _____
14. The elephants came **near**. _____
15. The pigeon carried the message **to** its destination. _____
16. The chimpanzees shouted **across** the water. _____



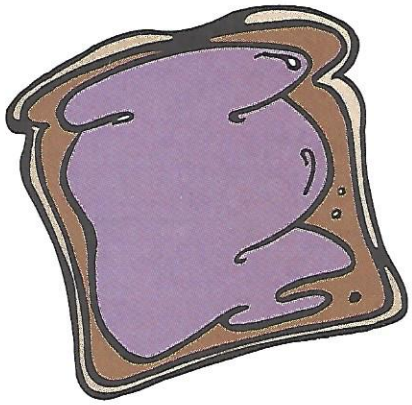


Prepositional Phrases

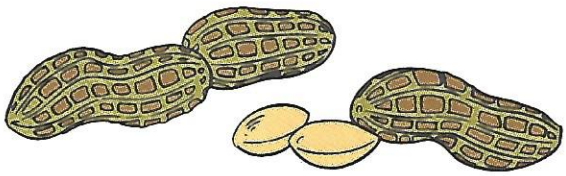
A **prepositional phrase** is a group of words that begins with a preposition and ends with a noun or pronoun. It can act as an adjective or adverb.

Examples: Pineapple is also grown **outside of Hawaii**. (adverb)
The sandwiches **with the peanut butter** were the best ones. (adjective)
We ate the peanut butter sandwiches **at night**. (adverb)

Underline the prepositional phrase in each sentence.

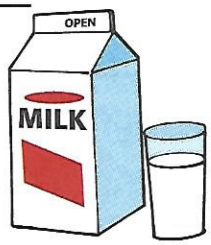


1. Peanuts are enjoyed around the world.
2. Peanuts are native to South America.
3. Peanut pods develop beneath the ground.
4. The pegs, which are the pod stems, push their way under the soil.
5. Peanuts are part of the legume family.
6. Most peanuts are grown in Africa and Asia.



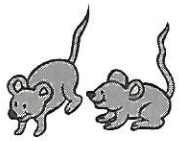
Tell whether each prepositional phrase acts as an **adjective** or an **adverb**.

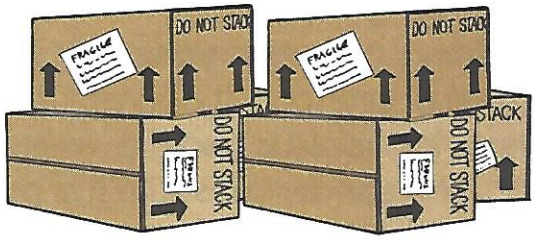
1. Wait until choir practice is over to eat peanut butter. _____
2. Peanut butter on a spoon is a delicious and quick snack. _____
3. Have you ever enjoyed celery with peanut butter and raisins? _____
4. Try your peanut butter sandwich with cold milk. _____
5. I love peanut butter on toast. _____
6. I enjoy eating peanuts at a ball game. _____



Missing Freight

Add vowels to each set of consonants to spell words from the list.

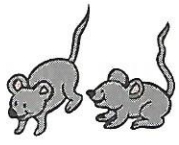




beige
caffeine
conceit
conceive
foreign
forfeit
freight
heifer
height
leisure
neither
perceive
protein
receipt
receive
seizure
skein
weight

nthr	frft	prcv
bg	lsr	hght
rcv	szr	prtn
cffn	skn	rcpt
hfr	cnct	frght
wght	cncv	frgn

Choose six spelling words to divide into syllables.



1. _____ 2. _____

3. _____ 4. _____

5. _____ 6. _____

What's the Difference?

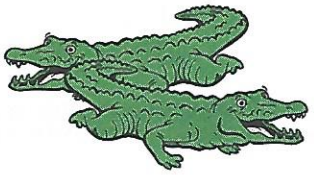
One day, David and Donald were discussing alligators. David insisted that alligators and crocodiles were the same animal but that people called them by different names. Donald insisted, however, that the two animals were entirely different reptiles. Kim walked up just in time to save the boys from further squabbling. Kim, who had lived in Florida for ten years, could settle this one.

She told David that alligators and crocodiles are separate reptiles. She told them that although they are similar looking and are both called crocodilians, they are very different. Both have a long, low, cigar-shaped body, short legs and a long, powerful tail to help them swim. But most crocodiles have a pointed snout instead of a round one like the alligator's. She also pointed out that while both have tough hides, long snouts and sharp teeth to grasp their prey, the crocodile is only about two-thirds as heavy as an American alligator of the same length and can therefore move much more quickly. David and Donald were impressed with Kim's knowledge.

Kim also told the boys another way to tell the two reptiles apart. She said that both have an extra long lower fourth tooth. This tooth fits into a pit in the alligator's upper jaw, while in the crocodile, it fits into a groove in the side of the upper jaw and shows when the crocodile's mouth is closed. David and Donald thanked Kim for the information, looked at each other sheepishly and walked away laughing.

Match:

crocodile	fourth tooth shows when mouth is shut
	round snout
	called crocodilian
alligator	fourth tooth is in a pocket in upper jaw
	pointed snout



Write three ways alligators and crocodiles are alike and three ways they are different.

Alike	Different
_____	_____
_____	_____
_____	_____

Name two other animals that are sometimes thought to be the same.

_____ _____

PEMDAS

Missing Signs

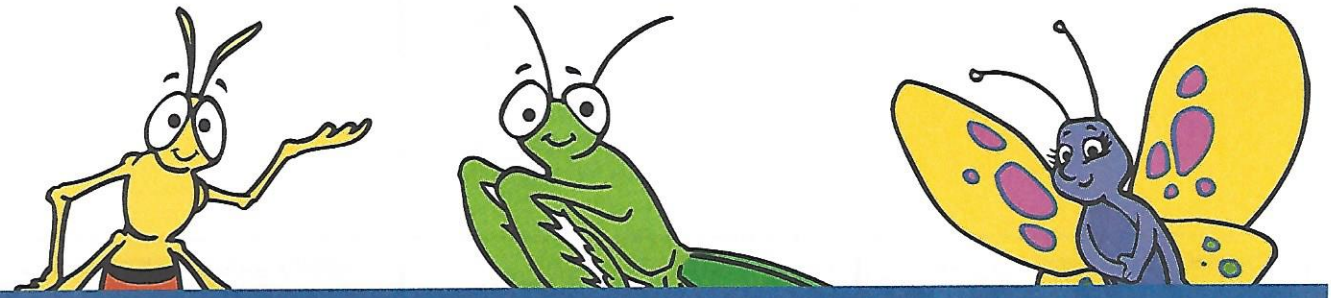
Fill in the circles with +, −, x, or ÷ to make the problem true.

3 ○ 3 ○ 3 → 9	3 ○ 3 ○ 3 → 18
3 ○ 3 ○ 3 → 3	3 ○ 3 ○ 3 → 3
3 ○ 3 ○ 3 → 2	3 ○ 3 ○ 3 → 6
3 ○ 3 ○ 3 → 4	3 ○ 3 ○ 3 → 0
3 ○ 3 ○ 3 → 12	3 ○ 3 ○ 3 → 27

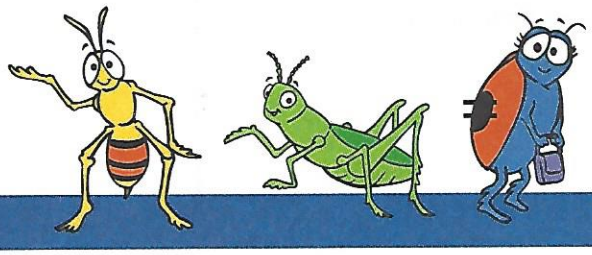
5 ○ 5 ○ 5 → 50	5 ○ 5 ○ 5 → 20
5 ○ 5 ○ 5 → 5	5 ○ 5 ○ 5 → 6
5 ○ 5 ○ 5 → 30	5 ○ 5 ○ 5 → 125
5 ○ 5 ○ 5 → 2	5 ○ 5 ○ 5 → 0
5 ○ 5 ○ 5 → 15	5 ○ 5 ○ 5 → 5

A Number Challenge

Fill in the blanks to make each problem true. To check your work, start at the left and do each operation in order to get the given answer.



1. ___ + ___ − ___ = 2
2. ___ − ___ ÷ ___ = 3
3. ___ + ___ ÷ ___ = 4
4. ___ x ___ − ___ = 5
5. ___ − ___ x ___ = 6
6. ___ x ___ ÷ ___ = 3
7. ___ ÷ ___ + ___ = 4
8. ___ ÷ ___ − ___ = 5
9. ___ ÷ ___ x ___ = 6
10. ___ x ___ + ___ = 7
11. ___ ÷ ___ + ___ = 12
12. ___ ÷ ___ − ___ = 15
13. ___ ÷ ___ x ___ = 20
14. ___ x ___ ÷ ___ = 8
15. ___ + ___ x ___ = 24



	Language Skills	Spelling	Reading
Monday	Have your child choose a topic, make a plan for writing, then begin work on a rough draft.	Pretest your child on these spelling words: achieve, ancient, believe, brief, field, hosiery, kerchief, mischief, niece, piece, pierce, retrieve, shield, shriek, siege, thief, wield, yield Correct the pretest, add personalized words and make two copies of this week's study list.	Introduce this week's reading selection. Suggestion: *The Phantom Tollbooth* by Norton Juster.
Tuesday	**Direct and Indirect Objects:** A direct object is a noun or pronoun that comes after the action verb in a sentence. A direct object tells who or what receives the action of the verb. Give your child several sentences containing direct objects. Have him/her identify the verb phrase in each sentence and circle the direct object. *See* Language Skills, Week 12, number 1.	Study this week's spelling words. Have your child complete **The Mischievous Thief** (p. 135).	Discuss the current reading book in a conference. Focus on idioms.
Wednesday	An *indirect object* is a noun or pronoun that tells to whom or for whom the action of the verb is done. Give your child several sentences containing indirect objects. Have him/her circle the indirect object in each sentence. *See* Language Skills, Week 12, number 2.	Have your child use each of this week's spelling words correctly in a sentence.	**Main Idea:** Review the concept of main idea. Have your child complete **Beth Is Sick** (p. 136).
Thursday	Work with your child to make a proofreading checklist. Make a list of things your child should look for when proofreading his/her own writing. Have your child apply this list to the story he/she is writing this week.	Have your child study this week's spelling words.	Discuss the main idea of each chapter read so far in the current reading book. *See* Reading, Week 12, numbers 1 and 2.
Friday	Review pronoun/antecedent agreement and run-on sentences. Have your child complete **Penguins Keeping Warm** (p. 134).	Give your child the final spelling test. Have your child record pretest and final test words in his/her word bank.	Hold a reading conference. Have your child predict the outcome of the book or discuss the ending.

Math	Science	Social Studies
Division Teach your child the following terms: *mean, mode, median* and *range*. *See* Math, Week 12, numbers 1–4. Create four simple charts or graphs that present information such as test scores or movie running times. Ask your child to find the mean, mode, median and range for each chart, rounding his/her answers to the nearest hundredth.	**Elements** Each element has a one- or two-letter abbreviation called a *symbol*. While some symbols are easy to recognize (Ne for neon), others are more puzzling (Na for sodium or K for potassium). Have your child research the origins of some of these unusual symbols. Have your child use the symbols to write words or sentences. **Example:** PoPCoRn.	**Panama Canal** One result of the Spanish-American War was the decision to build a passage from the Atlantic Ocean to the Pacific Ocean. The Panama Canal passes through Central America, thus eliminating the need to travel all the way around the tip of South America. Have your child draw a detailed map of the Panama Canal and of the trip around South America that the canal replaces.
Guide your child through an activity in organizing and analyzing data. Have your child complete **Statistical Experiments** (p. 137). Then, have your child collect, organize, analyze and report data on a topic of his/her choice.	Have your child identify different elements that were named for people, places and planets. *See* Science, Week 12, number 1.	Have your child do research, then draw a diagram showing how the locks and the canal move ships from one ocean to the other. *See* Social Studies, Week 12, number 1.
Given the area and the length of one side of a rectangle, your child should be able to determine its width. Draw and label the following rectangles. Have your child find the width of each one. length = 5 cm area = 20 cm^2 length = 7 cm area = 42 cm^2 length = 6 cm area = 12 cm^2 length = 18 cm area = 72 cm^2 length = 9 cm area = 54 cm^2	Explain the significance of the numbers on the periodic table of the elements. The atomic number and atomic mass signify the number of protons, neutrons and electrons in an element. *See* Science, Week 12, number 2. Create math problems for your child to solve using the atomic mass and weight of different elements. *See* Science, Week 12, number 3.	Have your child read, then write, about the building of the canal. Ask him/her to include information about the many obstacles encountered during construction, such as disease, engineering, money and politics.
The missing length of a prism can be found given the volume and two of the dimensions. Volume = length x width x depth. Draw and label the following rectangular prisms. Have your child find the depth of each one. vol. = 125 cm^3 l = 5 cm w = 5 cm vol. = 180 cm^3 l = 3 cm w = 12 cm vol. = 640 cm^3 l = 8 cm w = 8 cm vol. = 144 cm^3 l = 2 cm w = 8 cm	Have your child refer to the atomic numbers on the periodic table to solve a puzzle. Have your child complete **Chemical Magic Square** (p. 139).	Discuss the political disputes regarding U.S. ownership of the Panama Canal Zone. *See* Social Studies, Week 12, number 2. Who does your child think should own the zone?
Review U.S. Customary units of measurement. Show your child how to convert one unit to another unit. Have your child complete **Weight and Capacity** (p. 138).	Discuss where elements can be found in, on or around Earth. Help your child do some research and make a chart identifying where common elements are most often found. *See* Science, Week 12, number 4.	Arrange for your child to perform a community service. Have your child write in his/her Social Studies Journal.

TEACHING SUGGESTIONS AND ACTIVITIES

LANGUAGE SKILLS (Direct and Indirect Objects)

1. Copy the following sentences onto the chalkboard. The direct objects are underlined. Have your child identify the verb phrase in each sentence, then circle each direct object.

   At some time, everyone has received an important or interesting letter in the mail. The postal system carries vast amounts of correspondence every day. It may surprise you to know how old this idea is.

   In 3000 B.C., runners carried messages for their rulers. The runners memorized them before leaving. The first Roman emperor, Caesar Augustus, created an efficient postal system. He built roads for his messengers. The smooth roads helped them run faster. King Edward IV of England set up a series of post houses. At first, these handled only official mail. Later, ordinary citizens could use them. Charles II of Great Britain started the London Penny Post in 1683. A person could mail a letter to anywhere in London for a penny. Rowland Hill envisioned the envelope. He also suggested stamps with glue. Britain issued the first postage stamps on May 6, 1840. The world has been using postage stamps ever since. Our efficient postal system helps us each and every day.

2. Have your child look for the action verbs in the following sentences. The indirect objects are underlined. Copy these sentences without underlining. Have your child circle the indirect object in each sentence.

   The sun sends the earth a tremendous amount of energy every hour.

   The sun provides plants life-giving energy.

   A process called photosynthesis gives plants the ability to convert that energy.

   Green plants provide animals energy for growth and function.

   Solar energy offers us weather variations around the world.

   The winds provide people energy to power some machines.

   Eclipses of the sun give scientists opportunities to study the sun's corona.

   The sun's infrared rays give sunbathers their sunburns.

   The sun's energy gives milk its Vitamin D.

   Prolonged exposure to the sun can give people health problems.

READING (Main Idea)

1. The main ideas in a book may be implied rather than stated. Ask your child to reflect on the messages that the characters are communicating. Could your child also benefit from the lessons the book's characters are learning? Each chapter may have one or more main ideas. One chapter's main idea may be to teach the reader about the character's background. Another chapter's main idea may be to introduce a problem. Discuss the main ideas as your child reads.

2. The main idea of a paragraph is often stated in the first sentence. Choose several paragraphs from the current reading book. Have your child read each paragraph carefully, then state the main idea. Have your child identify which paragraphs state the main idea in the first sentence.

MATH (Division)

1. *Mean* is another term for average. It is found by adding all the numbers in a situation and dividing by the number of occurrences. **Example:** One week, Eunice returned 7 bottles to the recycling station. Another week, she returned 8 bottles, and a third week, she returned 9 bottles. The average is calculated by adding the three occurrences and dividing by 3. The average number of bottles Eunice returned in a week was 8.

2. When a list of numbers is arranged in numerical order, the *median* is the middle number.

   Example: 32°, 36°, 38°, 40°, 41°, 45°, 46°

When there are an even number of occurrences, the median is found by taking the average of the two middle numbers. In the following example, the median is 39.5°.

Example: 32°, 36°, 38°, 39°, 40°, 41°, 45°, 46°

3. The number that occurs most frequently is called the *mode*.

   Example: 32°, 34°, 34°, 33°, 34°, 36°, 30°

4. The *range* is the difference between the greatest and the least possibility.

   Example: 32°, 36°, 38°, 40°, 41°, 45°, 46°
   The range is 46° – 32° or 14°.

SCIENCE (Elements)

1. Have your child study the periodic table by looking for elements named for:

   planets—uranium, neptunium, plutonium

   people—nobelium, mendelevium, fermium, curium, lawrencium

   places—francium, europium, californium, berkelium, americium, polonium

   Have your child read about Nobel, Fermi, the Curies and E. O. Lawrence to find out why these scientists were honored by having elements named for them.

2. The *atomic number* of an element is the number of protons found in the nucleus. The number of electrons in a neutral atom of that element will also be the same. For example, carbon's atomic number is 6—it has 6 protons in its nucleus and 6 electrons around the nucleus. The *atomic mass* of an atom is the total number of protons and neutrons in the nucleus. For example, carbon's atomic mass is 12. The nucleus of the atom contains 6 protons and 6 neutrons. By subtracting the atomic number from the atomic mass of an atom, the number of neutrons can be determined. Refer to the periodic table to find the atomic number and atomic mass of given atoms.

   How many neutrons are in an atom of Ne?
   atomic mass = 20 atomic number = 10 20 – 10 = ___ neutrons

   How many neutrons are in an atom of Sr?
   atomic mass = 88 atomic number = 38 88 – 38 = ___ neutrons

3. Give your child the following problems and/or similar ones. Have him/her refer to the periodic table to solve the problems.

   How many neutrons are in an atom of Ca? How many neutrons are in an atom of Cl?

   How many neutrons are in an atom of U? How many neutrons are in an atom of Pb?

4. Chemical elements are found throughout the solar system. Most elements occur naturally in or on the earth. Some elements are manufactured and others are created in nuclear reactors or in nuclear explosions. Using reference materials, have your child discover where the following elements are located most abundantly.

gold	silver	lead	copper	aluminum	tungsten
uranium	tin	mercury	bromine	iron	cobalt
titanium	chromium	nickel	zinc	radium	platinum

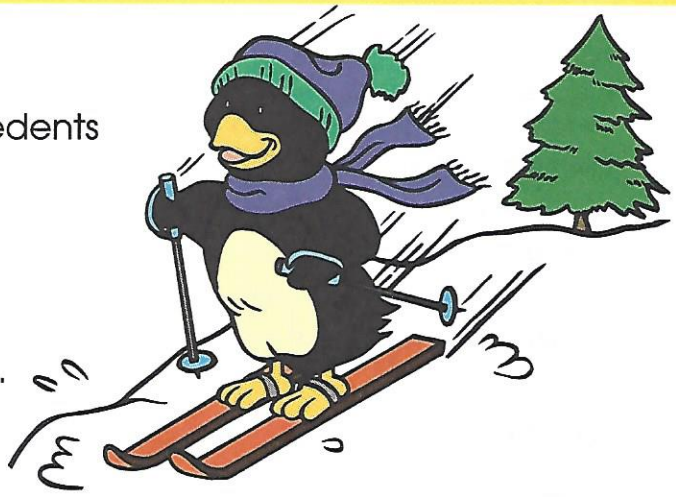
SOCIAL STUDIES (Panama Canal)

1. Have your child draw a side view of the Panama Canal, labeled with details such as length, depth and time required at each station along the way. The canal is about 50 miles (80 kilometers) long. It takes a ship about 8 hours to travel from one ocean to the other. Have your child take an imaginary ship through the canal beginning at Limón Bay. Have your child take the ship through the Gatun Locks and up 85 feet, through Gatun Lake and the narrow Gaillard Cut, then back down through the Pedro Miguel and Miraflores Locks. Finally, have your child bring the ship through the Bay of Panama into the Pacific Ocean.

2. Have your child read about the agreement between the U.S. and Panama to give the U.S. control of the Panama Canal Zone. How much did the U.S. pay for this privilege? How long was the agreement meant to last? How did the Panamanians feel about the deal?

Skill Lessons

Read the paragraphs about penguins. Make sure all pronouns and their antecedents agree. Correct run-on sentences.



Penguins are unusual birds found in Antarctica and other southern locations. They spend a lot of time in the icy ocean waters, they do not get cold. They are covered with short thick feathers that help to keep them warm. Plus, beneath his skin, penguins have a layer of blubber. These thick layers of fat keep the penguins warm in icy water.

Baby penguins, called chicks, do not have as much insulation as its parents have they do not yet have blubber or waterproof feathers to keep it warm and dry. The chicks' fluffy down feathers plus their parents' body heat keep it safe from the cold. A small penguin may huddle under the warm body of an adult, and sometimes the adults form a tight circle around a group of several chicks and eventually the little penguins will be able to survive on his own.

Complete the article by adding a final paragraph.

The Mischievous Thief

achieve
ancient
believe
brief
field
hosiery
kerchief
mischief
niece
piece
pierce
retrieve
shield
shriek
siege
thief
wield
yield

Use the code to retrieve the stolen words. Crack the code by assigning a number to each letter of the alphabet.

Example: A = 1, B = 2

J

1	14	3	9	5	14	20

16	9	5	18	3	5	

6	9	5	12	4

25	9	5	12	4

O

20	8	9	5	6	

19	8	18	9	5	11	

S

14	9	5	3	5	

1	3	8	9	5	22	5	

2	5	12	9	5	22	5	

23	9	5	12	4	

B

19	9	5	7	5	

19	8	9	5	12	4	

V

2	18	9	5	6	

8	15	19	9	5	18	25	

16	9	5	3	5	

11	5	18	3	8	9	5	6	

13	9	19	3	8	9	5	6	

T

18	5	20	18	9	5	22	5	

F

Beth Is Sick

Poor Beth is sick, and she doesn't know why. She felt great yesterday, but this morning she woke up with a headache, a fever and a horrible sore throat. Beth is disappointed because today is the day her class is going to the new science museum. Why did she have to be sick on a field trip day? How did she get ill so quickly?

Beth and Kim talk on the phone about Beth's situation for twenty minutes. Because they planned to be field trip partners, Kim is really sad Beth isn't going to school today. Kim tells Beth she probably got sick because she didn't wear a jacket to school yesterday, and it was a cold day. She tells Beth that if your body gets cold, you catch germs more easily. Beth tells Kim that is silly. She believes Kim has a virus.

Beth remembers learning about viruses in science class. Mr. Fridley told them that viruses are noncellular structures that can only be seen through an electron microscope, which magnifies them thousands of times. On its own, a virus is a lifeless particle that can't reproduce, but when a virus enters a living cell, it starts reproducing and can sometimes harm the host cell. Viruses that harm host cells cause disease like chicken pox, the flu and colds. Mr. Fridley told them that shaking hands with or being sneezed or coughed on by an infected person may infect you with the virus. Beth believes that she became infected from someone since lots of people are sick at this time of year. Kim promises Beth a full report on the science museum.

Underline the main idea of the story.

Beth has a headache, fever and a sore throat.
Beth and Kim try to discover why Beth is sick.
Viruses cause diseases.
Mr. Fridley taught them about viruses.

Check the correct answers.

Viruses...

- ☐ can't be seen through an ordinary light microscope.
- ☐ pass easily from one person to another.
- ☐ are thousands of times bigger than regular cells.
- ☐ enter living cells and start reproducing.

What are some ways to avoid viruses? _____

_____

_____

Statistical Experiments

Statistical experiments involve collecting, organizing and analyzing data. Ms. Botanical's class is interested in growing a flower garden for the whole school to enjoy. To collect data on flower preferences, they surveyed all 435 students in the school. They noted the results below.

Favorite Flowers

Types of Flowers	Number of Votes
Black-eyed Susans	57
Petunias	63
Irises	32
Tulips	78
Hollyhocks	7
Daffodils	53
Daisies	84

Organize the data:

List the flowers in order from the most popular to the least. _____

_____

_____

Analyze the data:

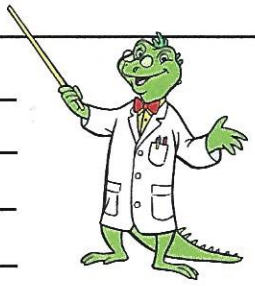
1. Based on these data, which five flowers should the students plant? _____

   _____

2. Which flower should definitely not be planted? _____
3. Do the number of votes justify planting a garden? Why or why not? _____

   _____

4. What is the mean? _____
5. What is the mode? _____
6. What is the median? _____
7. What is the range? _____



Weight and Capacity

Weight

1 pound (lb.) = 16 ounces (oz.)

1 ton (T.) = 2,000 pounds

Capacity

1 cup (c.) = 8 fluid ounces (fl. oz.)

1 pint (pt.) = 2 cups

1 quart (qt.) = 2 pints

1 gallon (gal.) = 4 quarts

Example 1

To change from a larger unit to a smaller unit, multiply.

5 T. = _____ lb.

1 T. = 2,000 lb.
5 x 2,000 = 10,000
5 T. = 10,000 lb.

Example 2

To change from a smaller unit to a larger unit, divide.

176 fl. oz. = _____ c.

8 fl. oz. = 1 c.
176 ÷ 8 = 22
176 fl. oz. = 22 c.

Example 3

Express remainders in terms of the original unit.
25 c. = 12 pt. 1 c.

25 c. = _____ pt.
2 c. = 1 pt.
25 ÷ 2 = 12 R1

Complete.

1. 16 pt. = _____ qt.
2. 12 gal. = _____ qt.
3. 5 lb. = _____ oz.
4. 150 oz. = ____ lb. ____ oz.
5. 5 gal. 3 qt. = _____ qt.
6. 2 lb. 3 oz. = _____ oz.

Compare using >, <, =.

7. 1 gal. ☐ 6 qt.
8. 560 oz. ☐ 35 lb.
9. 15 pt. ☐ 25 c.

Chemical Magic Square

Use the Periodic Table to help you complete this activity. Read the clues concerning the elements in the boxes below. **Write** the correct atomic number in the box. Add the numbers across, down and diagonally to produce a magic square.

What is your answer? _____

This element is located directly above lithium. _____	This element is located to the left of sulfur. _____	This element is located directly below carbon. _____	This element is located directly above magnesium. _____	_____
This element is located to the right of sodium. _____	This element is located to the left of nitrogen. _____	This element is located directly above phosphorus. _____	This element is located directly above chlorine. _____	_____
This element is located to the left of fluorine. _____	This element is located below helium. _____	This element is located directly above potassium. _____	This element is located directly above aluminum. _____	_____
This element is located to the left of silicon. _____	This element is located directly below hydrogen. _____	This element is located directly above neon. _____	This element is located to the left of chlorine. _____	_____
_____	_____	_____	_____	_____

	Language Skills	Spelling	Reading
Monday	Have your child choose a topic, make a plan for writing, then begin work on a rough draft.	Pretest your child on these spelling words: applause daughter nautical assault exhaust pauper audience fraud restaurant automobile laundry sauna autumn naughty slaughter caulk nausea trauma Correct the pretest, add personalized words and make two copies of this week's study list.	Choose a nonfiction book for this week's reading selection. Introduce the book today.
Tuesday	**Conjunctions:** *Conjunctions* join words, groups of words or entire sentences. Some common conjunctions are *and, but* and *or.* Write several sentences that contain conjunctions. Leave a space where each conjunction should be. Have your child choose the best conjunction to complete each sentence. *See* Language Skills, Week 13, number 1 for sample sentences.	Study this week's spelling words. Have your child complete **Automobile Exhaust** (p. 145).	Discuss the current reading book in a conference. Focus on reasons for reading.
Wednesday	Teach your child to use correct punctuation when joining clauses or sentences. Two complete sentences are joined with a comma and a conjunction. Subordinating conjunctions do not always require a comma. *See* Language Skills, Week 13, number 2. Have your child write ten sentences that contain conjunctions. Have him/her focus on correct punctuation.	Have your child use each of this week's spelling words correctly in a sentence.	**Taking Notes:** With your child, discuss reasons for taking notes. *See* Reading, Week 13, number 1. With your child, brainstorm situations in which a person might want to take notes. Ask your child to jot notes as he/she reads this week's book to remember specific facts about the subject.
Thursday	**Interjections:** Review *interjections.* An interjection expresses a feeling and has no grammatical relation to the rest of the sentence in which it appears. Interjections may express happiness, surprise, anger, disappointment, joy or danger. Have your child cite interjections that might express each of these feelings. Have your child complete **Interjections** (p. 144).	Have your child study this week's spelling words.	Teach your child to reflect on the purpose for taking notes before starting to read or research. *See* Reading, Week 13, number 2. Teach your child to organize his/her note-taking so that it is orderly and easy to follow.
Friday	Introduce the proper use of direct address in a sentence. *See* Language Skills, Week 13, number 3. Have your child generate a list of writing situations in which it would be appropriate to use direct address. Have your child include examples for each situation.	Give your child the final spelling test. Have your child record pretest and final test words in his/her word bank.	Hold a reading conference in which you determine a project for your child to complete using the information gathered this week.

Math	Science	Social Studies
Problem Solving With your child, discuss problem-solving strategies, such as looking for clue words to determine the required operation or drawing a picture or chart to help illustrate the problem. Sometimes a problem can be solved by extending a pattern. Have your child complete **Multiply or Divide?** (p. 146).	**Metals and Nonmetals** Study the groups found on the periodic table this week. *See* Science, Week 13, number 1. The element iodine is used to test for the presence of starch in foods. Have your child complete **Testing for Starch** (p. 149). **Note: Pure iodine is poisonous if swallowed.** Buy tincture of iodine at a drug store and supervise your child during his/her independent investigation.	**Twentieth Century** Have your child read about Presidents Taft and Wilson. Have him/her write three facts about each president on index cards. Add them to the time line.
Generate 6–8 situational problems for your child to solve using multiplication and division. Center the problems around a common theme, such as travel times or distances. **Example:** It is 3 times as far from Minneapolis to New Orleans as it is from Minneapolis to Chicago. The distance from Minneapolis to New Orleans is 1,215 miles. How many miles is it from Minneapolis to Chicago?	Most elements are metals. *See* Science, Week 13, number 2. Have your child locate the two groups of nonmetals on the right side of the periodic table. Explain that all metals share some basic characteristics: They lose electrons in chemical reactions; they are shiny; they are good conductors; they can be bent or stretched; and they can be hammered into thin sheets. Compare metals and nonmetals.	The twentieth century has been a time of great change. Read about the changing roles of women during this century—especially the suffrage movement. Have your child create a collage depicting what he/she believes are the roles of women today.
Continue to give your child practice with problem solving. Have your child complete **Shifty Sam's "Rip-Off" Record Shop** (p. 147).	Look at nutrition labels from cereals, breads and meats. Have your child identify the metals listed (sodium, potassium, calcium and iron). Explain that a healthy diet includes 10 milligrams of iron each day. Have your child find out the iron content of different foods. Discuss the consequences of an iron-poor diet. Help your child find iron filings in cereal. *See* Science, Week 13, number 3.	**World War I:** Introduce World War I (WWI). WWI was labeled "the war to end all wars." It was also known as the "Great War." Discuss the reasons for these names. *See* Social Studies, Week 13. Have your child read about the development of the airplane from the first one flown by the Wright brothers to those used by the military in WWI. Have your child write about or draw pictures of the changes.
Review concepts related to division. Then, test your child's understanding of division. Have your child complete **Division Review** (p. 148).	Have your child keep track of his/her diet for one day. Then, ask your child to look up the amount of iron on labels and in a nutrition resource. Have your child calculate the milligrams of iron in his/her diet for one day.	Help your child understand the concept of *allies*. WWI was a war of alliances. It was another way of saying, "My friends and I are stronger than you and your friends." Discuss how this concept caused the war to be more widespread than it needed to be. Have your child list or show on a map the different alliances formed during WWI. Have your child indicate the allied powers, the central powers and the neutral nations.
Teach your child how to use different functions on the calculator. *See* Math, Week 13, number 1.	Have your child look up and define the term *radioactivity*. Then, have your child name the elements that are radioactive.	Arrange for your child to perform a community service. Have your child write in his/her Social Studies Journal.

TEACHING SUGGESTIONS AND ACTIVITIES

LANGUAGE SKILLS (Conjunctions/Interjections)

1. Here are some examples for you to follow:

   Saturn has rings _____ moons surrounding it.

   Saturn is a small light as seen from Earth _____ is a giant in space.

2. Subordinating conjunctions include *since, while, as, when, after, before, whether, although, if* and *because.* These conjunctions are used to join a dependent clause to an independent clause. When a sentence begins with a subordinate conjunction, use a comma to separate the clauses. If the dependent clause follows an independent clause, no comma is used.

   After Harvey finished his chores, he went to play with his friends.

   Harvey went to play with his friends **after** he finished his chores.

3. Stating the name of the person being spoken to or addressed is called direct address. The direct address is always followed by a comma. **Examples:** Ted, this is for you. Poor thing, let me help you.

READING (Taking Notes)

1. A *note* is a brief written record used to aid the memory. People take notes in many different situations. Usually a note is a list or a phrase; it is rarely a complete, punctuated sentence. Notes are taken for the note-taker. As long as the note-taker can understand the notes, the format is not important.

2. Teach your child to think about the purpose of note-taking before starting to read. Read the following paragraph aloud to your child without any introduction. Have your child take notes.

   Mrs. Johnson was about to go to the grocery store to buy supplies for dinner. She planned on preparing fish with lemon, peas and potatoes for the main course and apple pie for dessert. She discovered she needed a lemon, apples, potatoes and brown sugar. She asked if anyone else needed anything from the store. Mr. Johnson asked her to pick up some orange juice and crackers. Their son, Josh, asked her to buy cookies.

   After you finish reading, ask your child what Mrs. Johnson needed to buy at the store. Without an introduction, your child may not have taken very careful notes, or he/she may have written too much. Discuss the need for knowing the purpose before reading. Then, tell your child to take notes while you read a second paragraph. Explain to your child that the purpose this time is to find out how much money Charlene spent.

   Charlene met her friends for lunch. She ordered a hamburger, fries and a soda. Her lunch cost two dollars and fifty-nine cents. After lunch, Charlene and her friends went ice-skating. Skating cost a dollar. Charlene had to pay an additional fifty cents to rent skates. While skating, she bought a cup of hot cocoa for thirty cents. After skating, Charlene and her friends stopped at a video-game store. Charlene spent sixty-five cents playing games.

   After your child has calculated the money spent, discuss how it was easier to take notes when the purpose was clear. Relate this to taking notes while reading. It is important to reflect on your purpose before you start to read. Ask questions about the topic you are studying. Attempt to find answers to the questions as you read and take notes.

MATH (Problem Solving)

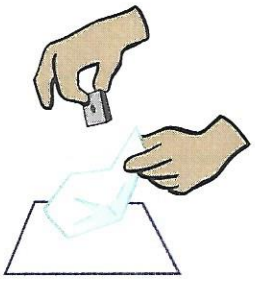
1. Teach your child to use the memory function on a calculator. The memory function works well when multiplying and adding in the same problem. Imagine you are adding up prices at the grocery store. You have purchased 3 loaves of bread at $1.59 each, 5 boxes of sandwich bags at $0.89 each and 3 quarts of milk at $1.39 each. First, total the bread by multiplying 3 x $1.59. Type *3 x 1.59 =*, then add the results to memory by typing *M+*. Next, total the sandwich bags by typing *5 x .89 = M+*. (This will add $4.45 to the amount currently in memory.) Finally, total the milk by typing *3 x 1.39 = M+*. (This will add $4.17 to the amount currently in memory.) To find the total, press the MR or MRC key, which recalls the amount in memory. In this case, the display will be 13.39. The total cost of the groceries is $13.39. Use the *clear* or *MC* (memory clear) button to work on the next problem.

SCIENCE (Metals and Nonmetals)

1. Refer to the periodic table of the elements and point out that there are groups of elements that possess similar properties. If you look at the chart in an encyclopedia, you will find the groups color-coded. Introduce your child to the following groups of elements: alkali metals, alkaline earth metals, nonmetals and noble gases. Name examples from each group. Have your child name places where these elements are commonly found (e.g., noble gases—neon is found in many store signs).

2. Introduce the study of metallic elements by displaying samples of nails, copper wire, aluminum foil, tools, coins, silverware, buttons, paper clips and jewelry. What are the similarities among the different metals? What are some other metals you can find in your home? Have your child identify some of the common metals on the periodic table of the elements, then name some common uses of metals.

3. You will need a package of instant oatmeal and a small magnet for this experiment. Purchase the variety of oatmeal with the largest amount of iron listed in the nutrients. Wrap a small magnet in a small square of plastic food wrap. Secure all loose ends of the wrap with a twist tie. Empty the package of oatmeal into a resealable plastic bag and put the wrapped magnet in the cereal. Seal the bag and have your child turn and shake the sealed bag for 5–10 minutes. Tell your child to try to get the magnet to roll past every piece of cereal in the bag. Carefully lift the magnet out of the cereal. Place the magnet on a piece of white paper and gently remove the twist tie. Lift the magnet up out of the plastic wrap. Carefully lift the plastic wrap. There should be a small pile of iron filings visible on the paper. **Note:** It is important that the magnet is completely wrapped in the plastic. If the cereal actually touches the magnet, the iron filings will not fall off when the plastic is removed.

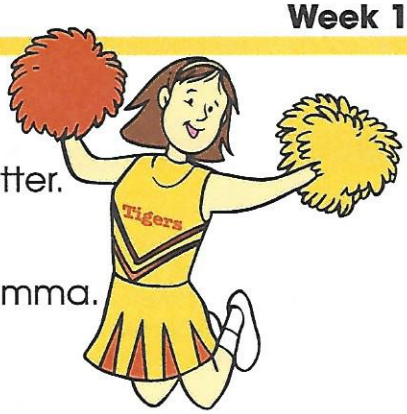


SOCIAL STUDIES (World War I)

BACKGROUND

World War I brought great changes around the world. It was called the "war to end all wars," but the harsh peace conditions imposed on Germany at the end of the war actually played a key role in setting the stage for World War II. Instead of providing a lasting peace, World War I became a prelude for the unprecedented destruction caused by Hitler, Mussolini and Hirohito. WWI was war on a scale never before witnessed. The sheer cost in loss of human lives was staggering. Total losses for the entire war include about 10 million troops. It is estimated that the number of civilian dead exceeded that number. This war also signaled the introduction of many weapons still used in modern warfare. These twentieth-century weapons include the airplane, the tank, the submarine, the machine gun, the hand grenade, poison gas and long-range artillery.

Interjections



An **interjection** that shows strong feeling is followed by an exclamation point. The next word begins with a capital letter.

Example: Quiet! He's not finished yet.

An **interjection** that shows mild feeling is followed by a comma. The next word is not capitalized.

Example: Oh, is that correct?

Rewrite the sentences to show strong feeling. Punctuate and capitalize properly.

1. hurrah we won the game.

_____

2. whew that was a close one.

_____

Rewrite the sentences on the lines. Punctuate and capitalize properly.

1. yes you may go to the movies.

_____

2. well we're glad you're finally here.

_____

Rewrite the sentences below correctly.

1. hush you don't want to upset her.

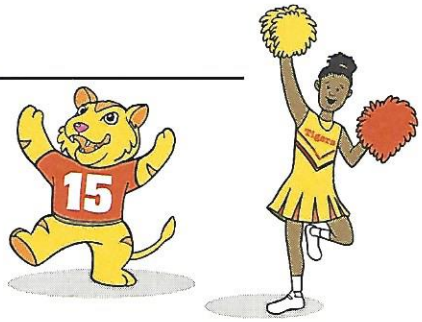
_____

2. well we're glad you came to the meeting.

_____

3. quiet you'll wake up everyone.

_____



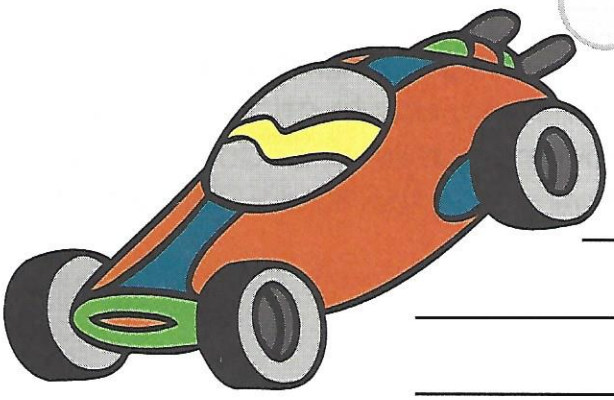
Automobile Exhaust

Week 13

applause
assault
audience
automobile
autumn
caulk
daughter
exhaust
fraud
laundry
naughty
nausea
nautical
pauper
restaurant
sauna
slaughter
trauma

Complete the word associations using the spelling words.

1. prince and _____
2. _____ and ship
3. crisis and _____
4. _____ and soap
5. _____ and fall
6. entertainer and _____
7. _____ and spa
8. _____ and deceit
9. cheering and _____
10. _____ and fumes
11. _____ and transportation
12. son and _____
13. _____ and nice
14. _____ and seal
15. kill and _____
16. _____ and battery
17. _____ and diner
18. upset stomach and _____



Write four more words containing **au**.
Write a word association for each word.

_____ and _____

_____ and _____

_____ and _____

_____ and _____

Multiply or Divide?

These key words will help you know when to multiply and when to divide.

Multiplication key words: **in all**, **altogether**, **times** and **each**

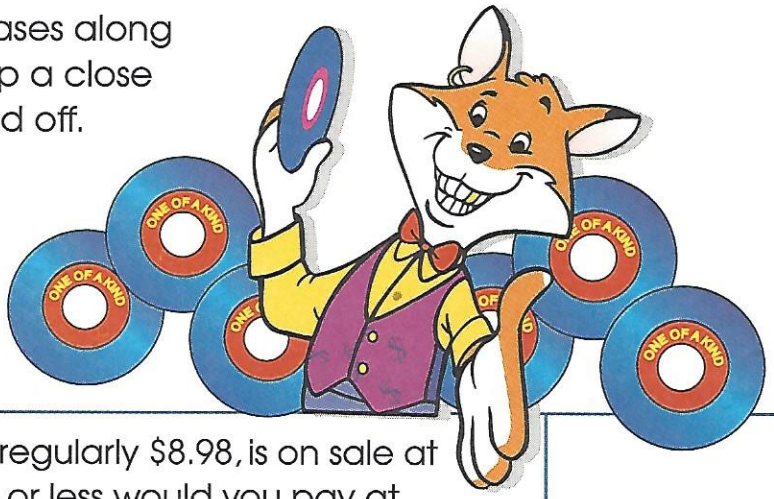
Division key words: **per**, **each**

Circle the key words and **solve** the story problems.

1. There are 9 classrooms at the vocational school. The average number of students per classroom is 27 students. How many students altogether are there in the school? _____	2. Thirty-five students are studying auto mechanics. Three times that many are studying business. How many students are studying business? _____
3. The semester is 16 weeks long. Students attend class 5 days a week. How many days in all must a student attend class each semester? _____	4. In one class of 27 students, each student used $30.00 worth of materials. Altogether, how much did materials cost this class? _____
5. Lunch cost each student $11.50 for a 5-day week. How much does each lunch cost? _____	6. The average student drives a total of 8 miles per day to attend classes. How many miles in all does a student drive during the 80-day semester? _____

Shifty Sam's "Rip-Off" Record Shop

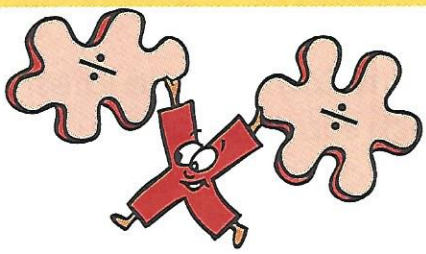
Shifty Sam sells the latest rock releases along with some oldies. You have to keep a close eye on Sam, or you may get ripped off.



Solve the problems on another sheet of paper. **Write** your answers in the spaces provided.

① The Ear Splitters' latest release, regularly $8.98, is on sale at 5 CDs for $46.95. How much more or less would you pay at the sale price for all 5 CDs?	
② The Funky Monkeys' new CD went fast. Sam made $4,540.90 on 455 copies. The correct price should be $7.99. How much did Sam charge for each CD? How much extra did he charge?	
③ Sam made $4.59 profit on each copy of the 323 CDs he sold by the Brainbangers. He is supposed to make only $3.29 profit on each one. How much extra did he make on the 323 CDs?	
④ Your aunt wanted to buy some CDs by Hart N. Soule which regularly sell for $3.67 each. Sam offered to sell her a dozen CDs for $44.00. How much will she save by buying 12 CDs?	
⑤ You wanted 180 copies of Hits of the 1940s to use as Frisbees. Each record cost $.79. Sam gave you $47.80 in change from $200. How much did he cheat you?	
⑥ Sam sold 7,000 copies of Golden Oldies for $3.99 each. He made a $2.00 profit on each record. How much money did he get for all 7,000 copies? How much profit did he earn?	
⑦ Sam charged $1.79 more for each copy of the Dippers' new CD than he was supposed to. His price was $7.89, and he sold 3,500 copies. How much extra money did he get?	
⑧ Sam sold 4,328 copies of Country Classics at $4.99 each. His profit was $1.45 on each one. How much money did he get in all? How much profit did he earn?	

Division Review



Divide.

1. $32\overline{)6{,}543}$

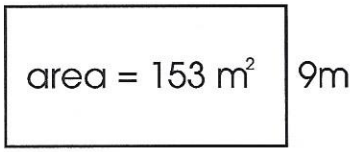
2. $69\overline{)112{,}346}$

3. $9\overline{)876}$

4. How many hours are in 255 minutes?

5. How many weeks are there in 90 days?

6. Find the missing length.



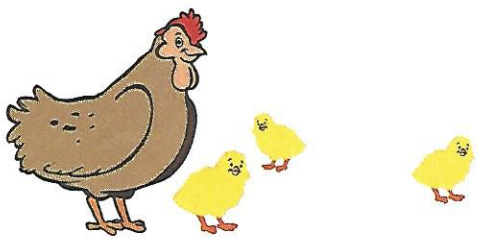
7. $17x = 272$

   $x =$ _____

8. Write the remainder as a fraction.

   $27\overline{)6{,}925}$

9. A chicken farm produced 7,256 eggs each day. How many egg cartons are needed each day? (A carton holds one dozen eggs.)



Testing for Starch

Starch is found in many foods and plants. Iodine is an indicator of starch. It turns blue-black when placed on a substance containing starch. **Safety Note: Iodine can be dangerous. Do not taste, spill or misuse it in any way.** Place a drop of iodine on each of the substances listed in the chart. Record the results. The first one is done for you.

Substance	Color of Iodine	Starch: Yes or No
white bread	blue-black	yes
brown bread		
dry cereal		
brown leaf		
popped popcorn		
oatmeal		
orange peel		
lemon peel		
liquid starch		
newspaper		
paper towel		
tissue		
water		
alcohol		
dish soap		
cloth		

	Language Skills	Spelling	Reading
Monday	**Writing Letters** Review the basic parts of a friendly letter. *See* Language Skills, Week 14, number 1. Have your child look in a writing handbook to read more about writing letters. Have your child write a rough draft of a letter to a friend, using a standard friendly letter format. Have your child address the envelope correctly and send the finished letter.	Pretest your child on these spelling words: diabetes, diabolic, diacritical, diadem, diagnosis, diagonal, diagram, dialect, dialogue, dialysis, diameter, diamond, diaper, diaphragm, diaries, diathermy, diatomic, diatribe Correct the pretest, add personalized words and make two copies of this week's study list.	Introduce this week's reading selection or continue with the book from last week.
Tuesday	Compare the format of a standard business letter with that of a friendly letter. *See* Language Skills, Week 14, number 2. Have your child draw a diagram or complete a chart comparing the purpose and format of a friendly letter and a business letter.	Study this week's spelling words. Have your child complete **Diamonds Are a Girl's Best Friend** (p. 154).	Discuss the current reading book in a conference. Focus on story elements (characters, setting, conflict, mood or tone, plot, resolution and theme).
Wednesday	Have your child plan and write a business letter to request information for a research topic. Have him/her edit and revise the letter before writing it neatly in the final format. Then, have him/her address the envelope and send the letter.	Have your child use each of this week's spelling words correctly in a sentence.	**Application of Concepts:** Assign a project that will require your child to apply a concept from the reading to a new situation. For example, have your child make a mobile or model to illustrate events or concepts from the story. Or, have your child role-play or dramatize a climactic event.
Thursday	Have your child plan and write a business letter to express an opinion on an environmental or a political issue. Have him/her edit and revise the letter before writing it neatly in the final format. Then, have your child address the envelope and send the letter.	Have your child study this week's spelling words.	Have your child write in his/her Reading Journal about a personal experience that is similar to an event in the reading.
Friday	Have your child plan and write a business letter to praise or thank someone for a service or a performance of some kind. Have him/her edit and revise the letter before writing it neatly in the final format. Then, have your child address the envelope and send the letter.	Give your child the final spelling test. Have your child record pretest and final test words in his/her word bank.	Hold a reading conference. Ask your child to reread parts of the story that were emotionally charged. Have him/her read with expression. Discuss.

Math	Science	Social Studies
Mixed Operations Teach your child the proper order of operations to solve problems that involve more than one operation. *See* Math, Week 14, number 1. Have your child complete **Equations** (p. 155).	**Chemical Compounds** Introduce chemical compounds. A *chemical compound* is a substance in which two or more elements have combined in a chemical reaction. **Examples:** Table salt (NaCl) is a combination of sodium (Na) and chlorine (Cl). Carbonated water (H_2CO) is hydrogen, carbon and oxygen. With your child, find other examples of chemical compounds.	**World War I** Help your child check out books on WWI from the library (recommendations: *The First World War* by John D. Clare, *World War I* by Gail Stewart). Look at magazines from the time period to learn what was going on in the United States as the war was beginning in Europe. Have your child write about the causes for the war in Europe and explain why the U.S. got involved.
Give your child a series of numbers. Have him/her use the four operations (+, –, x, ÷) to arrive at a given solution. Your child may rearrange the numbers and add parentheses as needed to ensure that the order of operation rules are followed. Some problems may have more than one solution. **Examples:** 3 3 3 3 = 30 6 6 6 6 = 13 5 4 1 4 = 28	The smallest unit of a chemical compound is a *molecule*. A water molecule is made up of two hydrogen atoms and one oxygen atom. The chemical symbol for water is H_2O. Have your child make candy models of molecules, using gumdrops or colored marshmallows as elements. Provide toothpicks for holding the molecules together. *See* Science, Week 14, number 1.	Have your child look in a dictionary or appropriate resource to define the following terms related to WWI: *ace, allies, bayonet, booby trap, cavalry, central powers, dogfight, doughboy, line (military), nationalism, neutral, no man's land, parapet, propaganda, reparation, international waters, U-boat, trench, Western Front, trench foot.*
Model a puzzle that uses order of operations and familiar numbers to solve equations. *See* Math, Week 14, number 2 for sample problems. Have your child create his/her own order of operations games and puzzles.	Have your child read about the chemical compound sugar in reference books and in other materials. Have your child make a bar graph showing per capita sugar consumption each year in several countries. Data are provided in Science, Week 14, number 2.	Help your child select a project (or two) related to WWI. Your child may wish to choose a person or a battle to research and report on. See Social Studies, Week 14, numbers 1–7 for other project ideas. Give your child a copy of **Chronology of Events** (p. 157) as an overview and time line of events of the war.
Have your child complete **Games** (p. 156).	Have your child read about some of the following chemical compounds in reference materials: aspirin, salt, starch, alcohol, ammonia, baking soda, methane, gasoline, dry ice, carbon monoxide, wax, ether, propane, lye, formaldehyde, hydrochloric acid, formic acid, lime and chalk.	Allow time for your child to continue working on his/her WWI project.
Have your child write situational problems that use mixed operations and order of operations.	Have your child create "Twenty Questions" riddles about common chemical compounds. *See* Science, Week 14, number 3.	Arrange for your child to perform a community service. Have your child write in his/her Social Studies Journal.

TEACHING SUGGESTIONS AND ACTIVITIES

LANGUAGE SKILLS (Writing Letters)

1. A friendly letter includes five basic parts: *heading, greeting, body, closing* and *signature.* In the standard format, the heading, closing and signature start at the center of the page. The greeting and body are left aligned. Paragraphs are usually indented. The heading includes the address of the person sending the letter and the date. See Letter A below.

2. A business letter includes six basic parts: *heading, inside address, greeting, body, closing* and *signature.* In the full-block style, all six parts are left-aligned on the page. Paragraphs are not indented. The heading includes the address of the person sending the letter and the date. The inside address includes the title and address of the person to whom the letter is being sent. Note that the greeting is followed by a colon rather than a comma. Also note that the signature is printed and typed. See Letter B below.

Letter A

123 First Street
Anytown, MA 12345
March 15, 2003

Dear Sam,

The body of your letter is single-spaced and contains a personal message.
Each paragraph is indented and there is no extra return (space) between paragraphs.

Sincerely,

Brian

Letter B

123 First Street
Anytown, MA 12345
March 15, 2003

Director of Tourists
9876 Oceanside Lane
Surf City, CA 91008

Dear Director:

The body of your letter is single-spaced and contains a polite, formal message.

The paragraphs are not indented. There is an extra return between paragraphs.

Sincerely,

Brian Johnson

Brian Johnson

MATH (Mixed Operations)

1. Have your child memorize the following rules regarding the order of operations to solve problems that mix the four operations.
   a. Perform all work in parentheses first.
   b. Perform all multiplication and division from left to right.
   c. Then, perform all addition and subtraction from left to right.

Example:

80 – 4 + 3 x 6 – 2 x (2 + 3) =	
80 – 4 + 3 x 6 – 2 x (5) =	***First complete work in parentheses.***
80 – 4 + (18) – 2 x 5 =	***Multiply and divide.***
80 – 4 + 18 – (10) =	
(76) + 18 – (10) =	***Add and subtract.***
94 – 10 = 84	

2. Have your child replace each variable with the number established in the clue, then follow the order of operations to solve the problem.

Problem: $(a + b) \times c =$
Clues:
a = the number of stripes on the U.S. flag
b = the number of wheels on a tricycle
c = the number of people in a set of twins
The answer is (13 + 3) x 2 = 32.

Problem: $(d - e) \times f =$
Clues:
d = the age you must be to vote in the U.S.
e = the number in a baker's dozen
f = the number of days in a week
The answer is (18 – 13) x 7 = 35.

SCIENCE (Chemical Compounds)

1. Have your child use the following color code for the elements:

oxygen (O): red	bromine (Br): orange	sulfur (S): yellow	carbon (C): black
nitrogen (N): blue	iodine (I): purple	chlorine (Cl): green	hydrogen (H): white

Have your child build the following molecules:

water (H_2O)	hydrogen peroxide (H_2O_2)
carbon dioxide (CO_2)	sulfur dioxide (SO_2)
carbon monoxide (CO)	ammonia (NH_4)
hydrogen iodide (HI)	bromobenzene (C_6H_5Br)
hydrogen chloride (HCl)	methane (CH_4)
hydrogen sulfide (H_2S)	carbon tetrachloride (CCl_4)

2. The following is a list of sugar consumption in *kg per person.*

Australia (53.12)	Iceland (43.13)	Netherlands (45.85)	Switzerland (40.86)
Canada (40.86)	Ireland (45.40)	New Zealand (56.30)	United States (44.95)
Denmark (49.03)	Israel (56.30)	Sweden (43.58)	United Kingdom (47.22)

3. Have your child compose a riddle about a common chemical compound. Use the following as an example.

What Compound Am I?

(1) I am used to preserve meats.
(2) I was once used for bartering.
(3) The word *salary* comes from my name.
(4) I am found in underground mines.
(5) I am found in the oceans.
(6) I have cubic crystals.
(7) I am white in color.
(8) I am used in many foods.
(9) I am made of two elements.
(10) One element has the atomic number 11.
(11) One element has the atomic number 17.
(12) I am spread on icy roads and sidewalks to melt the ice.
(13) I absorb moisture quickly.
(14) My atoms are held together by ionic bonding.
(15) I produce a bright yellow flame when burned.
(16) I conduct electricity when dissolved in water.
(17) I will corrode many metals.
(18) I am used in blocks for animals to lick.
(19) I form a mineral called halite.
(20) I am found in large amounts in a lake in Utah.

Answer: sodium chloride, or salt

SOCIAL STUDIES (World War I)

1. Have your child read *War Game* by Michael Foreman and write a book report.
2. Have your child make a poster enticing people to enlist or encouraging people to buy U.S. war bonds.
3. Have your child write several imaginary diary entries as if he/she were an 18-year-old soldier going off to war. Have him/her continue the journal as he/she imagines the soldier in the trenches hearing the sound of shell fire and seeing the wounded being brought back on stretchers.
4. Have your child write about the treaties that made up the Peace of Paris: Treaty of Versailles, Treaty of Saint Germain, Treaty of Trianon, Treaty of Sevres and Treaty of Neuilly.
5. Have your child write a newspaper article about the flu pandemic of 1918. Who was affected? What were the symptoms? Where did it originate? When did it begin and end? How did people try to prevent the spread of the flu?
6. Write about what life was like back home during the war. Have him/her search and report on the work of women, victory gardens, war bonds and the temperance movement.
7. Have your child draw examples of the new technology first used in WWI.

Diamonds Are a Girl's Best Friend

diabetes
diabolic
diacritical
diadem
diagnosis
diagonal
diagram
dialect
dialogue
dialysis
diameter
diamond
diaper
diaphragm
diaries
diathermy
diatomic
diatribe

Fill in the blanks with the correct missing letters to complete the spelling words.

dia ___ ___ ___ ___ dia ___ ___ ___ ___

dia ___ ___ ___ ___ ___ ___ ___ ___

dia ___ ___ ___ dia ___ ___ ___ ___ ___ ___

dia ___ ___ ___ ___ ___ dia ___ ___ ___ ___ ___

dia ___ ___ ___ ___ dia ___ ___ ___ ___ ___

dia ___ ___ ___ ___ ___ dia ___ ___ ___ ___ ___

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dia ___ ___ ___ ___ ___

dia ___ ___ ___ ___ ___

Choose one of the spelling words. Do some research on it. Then, **write** a paragraph (5 or 6 sentences) telling what you learned about the word.

Equations

Solve the equations on another sheet of paper. **Write** your answers here.

1. 5 + 6 – 4 =
2. (3 x 4) ÷ 3 =
3. (32 ÷ 8) + 3 =
4. (40 ÷ 8) –2 =
5. 6 + (8 x 3) =
6. 14 + 12–6 =
7. (2 x 9) + 4 =
8. (8 x 8) + 6 =
9. 6 + (6 ÷6) =
10. 45 ÷ (5 x 3) =
11. 9 + 7 –10 =
12. (15 x 2) ÷ 3 =
13. (3 x 7) –1 =
14. (18 ÷ 9) x 8 =
15. (36 ÷ 9) + 8 =
16. (21 ÷ 7) + 6 =
17. 7 + 8–8 =
18. 9 + 6 –12 =
19. 12 + 7–8 =
20. (56 ÷ 8) + 4 =
21. (64 ÷ 8) + 5 =
22. 14 + (2 x 8) =
23. (7 + 9) ÷ 2 =
24. (15 ÷3) x 2 =
25. (5 + 3) x 3 =
26. 15–7 + 3 =
27. (3 + 7) x (10÷2) =
28. 6 + (8 ÷2) =
29. 3 x (5 + 6) =
30. 15 + (3 x 2) =
31. 14–(8 – 2) – 1 =
32. 16–(10–4) =
33. (14 + 6) ÷ 5 =
34. (3 + 2) x (4 + 6) =
35. 12 x (3 + 2) =
36. 6 x (4 + 5) =
37. 3 + 6 x 2 + 5 =
38. 8 + (4 x 5) =
39. (6 x 8) + 2 =
40. 30 + (16 x 2) =
41. 3 x (9 + 2) =
42. 52–(5 + 3) =
43. (64 ÷ 8) x 3 =
44. 25–(3 + 8) =
45. 21 ÷ (3 + 4) =

Games

1. Choose any 2-digit number. Multiply the tens digit by 5. Add 7. Now, double this number. Add the ones digit of the original number. Now subtract 14. The answer is the original number.

2. Choose any 3-digit number. Multiply the hundreds digit by 2. Add 3. Now, multiply by 5. Add 7. Add the tens digit. Multiply by 2. Add 3. Multiply by 5. Add the ones digit. Now, subtract 235. The answer is the original number.

3. Fold a sheet of paper so that there are 16 squares and each crease can fold either way. Number the squares from 1 to 16 as shown in the diagram below. Now, fold the paper into a one-by-one square any way you like. Using scissors, trim the four edges so that there are sixteen separate squares. Without flipping any of the squares, lay them out on a desk or table. Add the numbers facing upward. Their total is 68.

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

4. One week (Sunday through Saturday) there is a birthday party every day. No two children are invited to the same party. Find out the day that each child attends a party.

   Hint: Use a chart with days of the week across and children's names down the side.

   a. Lisa and Pat don't go to a party on a Friday or a Saturday.
   b. Pat and Alice don't go on a Tuesday, but Sandy does.
   c. Jennifer goes to a party on Wednesday.
   d. Jim goes to a party the day after Jennifer.
   e. Lisa goes to a party the day before Pat.
   f. Paul goes to a party on a Saturday.

Chronology of Events

1914

- June 28 — Archduke Francis Ferdinand is assassinated in Sarajevo, Bosnia
- July 28 — Austria-Hungary declares war on Serbia
- August 3 — Germany invades Belgium
- August 10 — Fighting begins on the Eastern Front with the invasion of Russia by Austria-Hungary
- September 9 — Germans retreat north to Soissons as the Battle of the Marne ends
- December 25 — First Zeppelin bombs England

1915

- February 18 — German naval blockade of England begins
- April 22 — Second Battle of Ypres begins with the first major gas attack by the Germans
- April 25 — Allied troops land on the Gallipoli Peninsula
- May 7 — German submarine sinks the *Lusitania* passenger ship
- May 23 — Italian Front develops with Italy's declaration of war on Austria-Hungary
- August 5 — Germans take Warsaw
- December 8 — British defeated by the Turks; they evacuate the Gallipoli Peninsula

1916

- February 21 — Germans begin the Battle of Verdun
- April 21 — German cruiser and submarine attempt to land arms in Ireland
- May 31 — British and German fleets fight in the Battle of Jutland
- July 1 — Allies begin the Battle of the Somme
- December 15 — French victory at Verdun

1917

- February 1 — Germans resume unrestricted submarine warfare
- March 3 — Germans secretly transport Lenin (pre-revolution) from Switzerland to Russia
- March 8 — Russian Revolution begins with workers' strikes
- March 15 — Russian government overthrown and Czar Nicholas II resigns
- April 6 — United States declares war on Germany
- June 24 — American troops start landing in France
- December 15 — Russia signs an armistice with Germany; fighting ends on the Eastern Front

1918

- January 8 — President Wilson presents his Fourteen Points for a comprehensive peace
- February 10 — Russia announces its withdrawal from the war
- March 21 — Germany launches the first of its final three offensives on the Western Front
- August 6 — End of Second Battle of the Marne
- August 7 — German sailors mutiny at Wilhelmshaven
- August 30 — Germans retreat in Flanders
- September 26 — Allies initiate their last offensive on the Western Front
- October 5 — First peace note sent by Germans to President Wilson
- November 11 — Germany signs armistice; World War I ends

	Language Skills	Spelling	Reading
Monday	**Creative Writing** "Elephants never forget" is an old saying. What is one thing that your child will never forget? Could it be a vacation or a birthday party? Maybe it was a special gift he/she received or the time he/she broke an arm. Have your child choose a topic, then write about it.	Pretest your child on these spelling words: example, exchange, exercise, expense, expert, explore, extend, extent, exterior, exterminate, external, extinct, extinguish, extol, extract, extraordinary, extravagant, extreme Correct the pretest, add personalized words and make two copies of this week's study list.	**Comprehension** Introduce this week's reading selection. Suggestion: *Island of the Blue Dolphins* by Scott O'Dell. *See* Reading, Week 15 for a list of discussion topics related to the book.
Tuesday	"Give me a hand" is a request for assistance. It is an American expression that dates back to colonial days when neighbors helped neighbors with barn raisings and other difficult tasks. Have your child describe a time when someone gave him/her a helping hand or when your child helped out someone else. How did it make your child feel?	Study this week's spelling words. Have your child complete **Extra Extraordinary** (p. 162).	Discuss the current reading book in a conference. Focus on setting and characterization.
Wednesday	Everyone likes to "pig out" occasionally on junk food. Have your child describe his/her favorite "pig out" foods and where and when he/she indulges in them.	Have your child use each of this week's spelling words correctly in a sentence.	Have your child choose one scene from the story to rewrite from the perspective of the main character. Ask your child to consider what he/she would have done in the main character's situation.
Thursday	Everyone, both young and old, likes to laugh. Cartoons, comic strips, jokes, amusing stories, sitcoms and funny incidents are just some of the things that can prompt laughter. Have your child describe in writing something that makes him/her laugh.	Have your child study this week's spelling words.	Have your child write descriptive paragraphs about spring and winter on the island.
Friday	Ask your child to imagine he/she has been chosen by NASA to journey to Earth's twin planet. The twin planet is just like Earth—it has the same landforms, vegetation and animals—but it is uninhabited by humans. Your child will live there alone for 1 year. Food, shelter and clothing will be provided, and your child will be allowed to bring only five things. What would your child bring and why?	Give your child the final spelling test. Have your child record pretest and final test words in his/her word bank.	Hold a reading conference. Discuss the actual events on which this week's story is based. See the author's note in the book. Have your child complete a book project.

Math	Science	Social Studies
Decimal Fractions Review how to estimate addition problems by rounding decimal fractions to the nearest whole number. When rounding to a whole number, look at the number directly to the right of the decimal point. If that number is 5 or greater, round up; if that number is less than 5, round down. Give your child ten addition problems with decimals to estimate by rounding.	**Salt** Help your child make homemade ice cream. *See* Science, Week 15, number 1. Put the ingredients in a small, resealable plastic bag. Place the bag inside a larger resealable bag. Add crushed ice and 1/4 cup of salt to the large bag. Seal the large bag. Have your child put on mittens and shake and roll the bags until the ice-cream ingredients freeze (about 20 minutes).	**World War I** Allow time for your child to continue working on his/her WWI project from last week.
Review how to add decimal fractions. 1. Line up the decimal points. 2. Add zeros to keep position, if necessary. 3. Bring the decimal point down to the solution. 4. Add, carrying when needed. Have your child complete **Swiss Sentences** (p. 163).	Discuss why you added salt to the ice in the outer bag when you made ice cream yesterday. Salt lowers the freezing point of water, causing ice to melt. In the process of melting, ice pulls heat from its surroundings. So, as the salt melted the ice in the bag, heat was absorbed from the ice-cream ingredients, causing them to freeze.	Allow time for your child to continue working on his/her WWI project. Have your child write a bibliography of the resources used in the project.
The metric system of measurement is easy to learn because it is in base ten. The units are converted by moving decimal points. Discuss the names of metric units and their relationships to each other. *See* Math, Week 15, numbers 1 and 2. Have your child complete several metric conversions. Use the given problems or write your own. *See* Math, Week 15, number 3.	Discuss the use of salt on icy roads. *See* Science, Week 15, number 2. Have your child read the information and complete the experiments on **Salt and Ice** (p. 165).	Allow time for your child to continue working on his/her WWI project. Have your child make a final copy of the project to present.
Review how to estimate subtraction problems by rounding decimal fractions to the nearest whole number. Have your child estimate the subtraction problems provided in Math, Week 15, number 4.	Discuss the results of yesterday's experiments. *See* Science, Week 15, number 3.	Have your child read the Fourteen Points proposed by President Wilson. Discuss how these points influenced the peace treaties. *See* Social Studies, Week 15, numbers 1 and 2.
Review how to subtract decimal fractions. 1. Line up the decimal points. 2. Add zeros to keep position, if necessary. 3. Bring the decimal point down to the solution. 4. Subtract, borrowing when needed. Have your child complete **Robin Hood's Loot** (p. 164).	Discuss the sodium content of different foods. Have your child do research to find out how much salt is acceptable in a person's daily diet. Have your child calculate how much salt he/she ingests in a day. How does this compare to the recommended intake? If necessary, have your child write a proposal for how he/she can reduce his/her own salt intake.	Arrange for your child to perform a community service. Have your child write in his/her Social Studies Journal.

Scott O'Dell Island of the Blue Dolphins

TEACHING SUGGESTIONS AND ACTIVITIES

READING (Comprehension)

Chapter 1: Why did the Indians have two names?
Chapter 2: Do you believe that Chowig should have shared the white bass with the Aleuts? Explain.
Chapter 4: How did the Indians know the Aleuts were about to leave?
Chapter 5: What did Kimke plan to do to preserve the tribe? Was it a good idea?
Chapter 7: Did Karana make a wise decision by returning to the island with her brother?
Chapter 8: How did Ramo die?
Chapter 9: What skills were important for survival on the island?
Chapter 11: How did Karana feel when she returned to the island?
Chapter 12: To what was Karana referring when she said, "Everything I wanted was there at hand"?
Chapter 14: How was Karana's daily life affected by her injured leg?
Chapter 15: Why did Karana decide to save the dog?
Chapter 16: Why did Karana decide she needed the canoe?
Chapter 17: Why did Rontu return to Karana after a brief time back in the wild?
Chapter 19: Do you think Karana should have captured the young birds?
Chapter 20: How did Karana protect her food supply?
Chapter 21: How did Karana feel before and after meeting Tutok?
Chapter 23: How did the wounded otter respond to Karana's help?
Chapter 24: Why did Karana decide she would kill no more animals?
Chapter 25: How was Karana affected by Rontu's death?
Chapter 27: What effects did the tidal wave and earthquake have on Karana and the animals?
Chapter 28: How did Karana feel as the ship sailed away?
Chapter 29: How did the men prepare Karana for leaving the island? Do you think she enjoyed her life on the mainland? Explain.

MATH (Decimal Fractions)

1. The gram (weight or mass), liter (liquid) and meter (length) constitute the basic units of measurement in the metric system. Smaller units are identified by the prefixes *deci, centi* and *milli*. Larger units are identified by the prefixes *deca, hecto* and *kilo*. Have your child observe a meterstick carefully to analyze the system. One meter is divided into 10 decimeters (also known as 0.1 of a meter). The meter is further divided into 100 centimeters and 1,000 millimeters.

2. To change to a smaller unit in the metric system, multiply by 10 for each box you move to the right. Move the decimal point one place to the right for each box.

   Example: Decimeters to millimeters is two boxes to the right. Multiply by 100.
   2.3 x 100 = 230 2.3 dm = 230 mm

   To change to a larger unit in the metric system, divide by 10 for each box you move to the left. Move the decimal point one place to the left for each box.

   Example: Decimeters to hectometers is three boxes to the left. Divide by 1,000.
   5 ÷ 1,000 = 0.005 5 dm = 0.005 hm

km	hm	da	mm	dm	cm	mm
1,000 m	100 m	10 m	1 m	0.1 m	0.01m	0.001m
thousands	hundreds	tens	ones	tenths	hundredths	thousandths

kilometer (km)
hectometer (hm)
dekameter (dam)
meter (m)
decimeter (dm)
centimeter (cm)
millimeter (mm)

3. Give your child the following problems (and/or others) to solve. Have him/her use the chart in #2 to make the conversions.

80 km = ____ dm	16 mm = ____ dm	12.1 m = ____ mm	253 mm = ____ cm
7.1 hm = ____ cm	4.6 dam = ____ dm	0.01 hm = ____ mm	623 cm = ____ m
5.32 hm = ____ m	0.01 dm = ____ km	9 cm = ____ dam	2,340,000 mm = ____ km

4. Write the following problems on the chalkboard. Have your child estimate the difference in each problem. Have him/her round to the nearest whole number, tenth or hundredth, then subtract.

84.9 – 21.736	9.365 – 2.844	811.56 – 378.53	53.499 – 2.356
9.157 – 4.51	762.1 – 445.9	79.12 – 33.6	314.23 – 278.5

SCIENCE (Salt)

1. Your child may choose to make chocolate ice cream, fruit-flavored ice cream, frozen yogurt or sorbet. Have your child gather the appropriate ingredients from the choices below.
   a. Mix a half cup of milk with a tablespoon of sugar and your favorite fruit.
   b. Mix a half cup of milk with chocolate syrup to taste.
   c. Mix a half cup of yogurt with a tablespoon of sugar and your favorite fruit.
   d. Use a half cup of juice to make a sorbet.
2. Ask your child why salt is sprinkled on streets and sidewalks when they are icy. Explain that the freezing point of water is lowered by adding salt. Antifreeze works the same way: antifreeze is added to the water in a car radiator to lower its freezing point during extremely cold weather. When salt is sprinkled on an icy sidewalk or street, it lowers the freezing point of the water, so the ice melts.
3. The results of Part 2 of yesterday's (**Salt and Ice** pg.165) experiment with salt and ice may seem to contradict Part 1. Your child should have observed that the ice cube in the plain water melted most quickly, while the ice cube in the saltiest water melted more slowly. This was due to the fact that the addition of salt to the water increased its density, which, in turn, made the molecules in the water slow down. Traveling more slowly, the molecules in the salty water didn't collide as often or as energetically as the molecules in the plain water. Being struck less energetically, the bonds of the ice crystals held together longest in the saltiest water.

SOCIAL STUDIES (World War I)

1. World War I ended when Germany agreed to an armistice on November 11, 1918. Then, the process of writing a lasting peace treaty began. The basis for the treaty negotiations was President Wilson's Fourteen Points. Wilson's Fourteen Points outlined his vision of a lasting international peace. They were designed to bolster the Allies' morale as well as assure the Central Powers of fair treatment after the war was over. Have your child find a copy or summary of Wilson's Fourteen Points in an encyclopedia or other resource. Discuss the significance of each of the points. Which points relate directly to the causes of the war? Ask your child to explain why the U.S. was the only nation at the peace table wanting nothing for itself.
2. Have your child choose one of Wilson's Fourteen Points to consider more carefully. Have your child explain in writing why that particular point was important in establishing lasting world peace.

Extra Extraordinary

example
exchange
exercise
expense
expert
explore
extend
extent
exterior
exterminate
external
extinct
extinguish
extol
extract
extraordinary
extravagant
extreme

Complete the puzzle using the spelling words. Use each word once. One word has been filled in for you.

E _ _ _ _ _ _
_ X _ _ _ _ _
_ _ T _ _ _ _ _
_ _ _ _ R _ _ _
_ _ _ _ _ _ _ _ A _ _

E _ _ _ _ _ _
_ X _ _ _ _
_ _ T _ _ _ _
_ _ _ R _ _ _ _
_ _ A _ _ _ _
_ _ _ O _ _
_ _ _ _ _ R _
_ _ _ _ _ D
_ _ _ I _ _ _ _ _ _
_ _ _ _ _ N _ _
_ _ _ _ _ _ A _ _ _ _
_ _ _ _ R _

EXTRAORDINARY

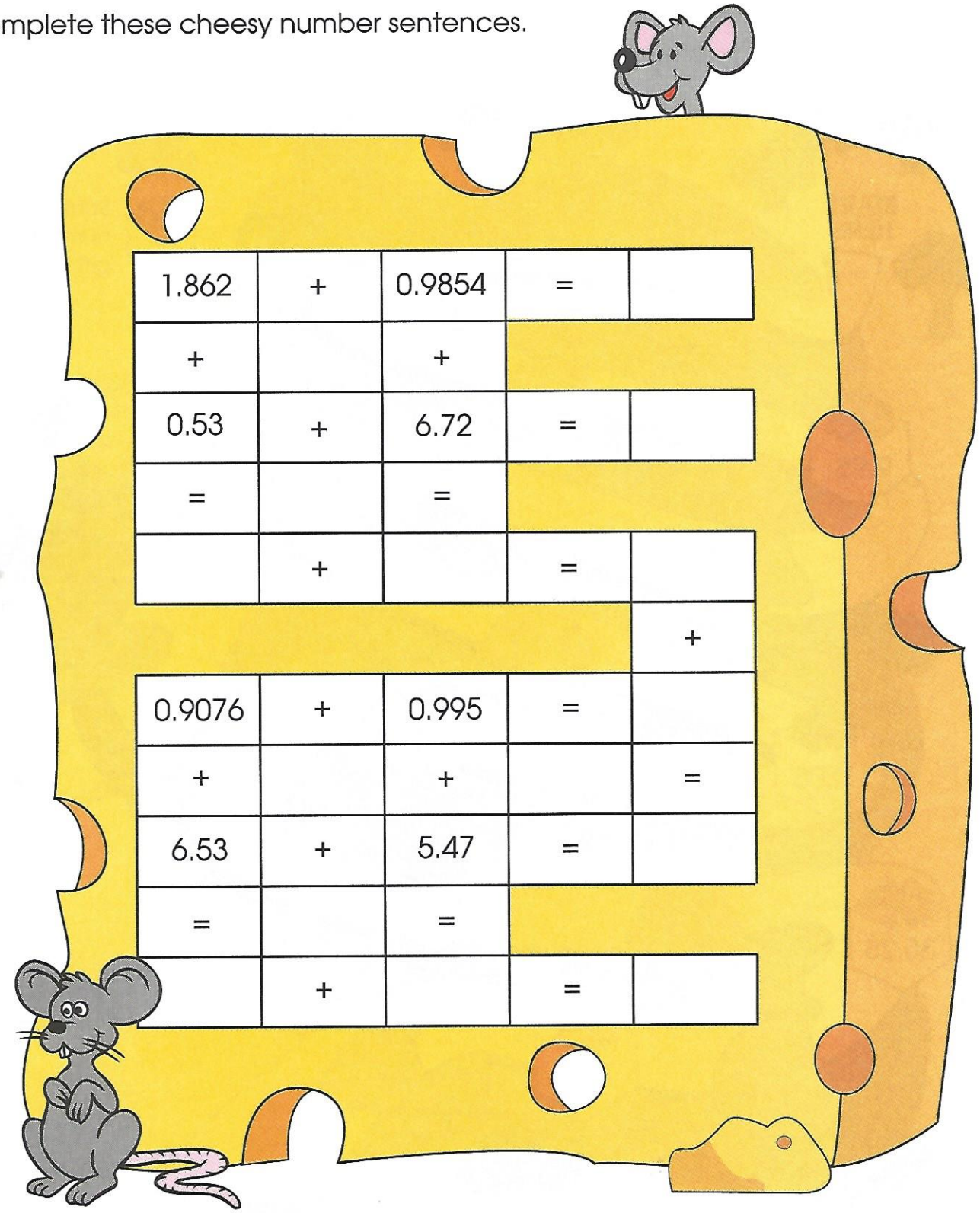
Use your own words to create a puzzle. Each word should link with another.

Example:

```
      H
      A
S H E E P
U     P
G     Y
A
R
```

Swiss Sentences

Complete these cheesy number sentences.

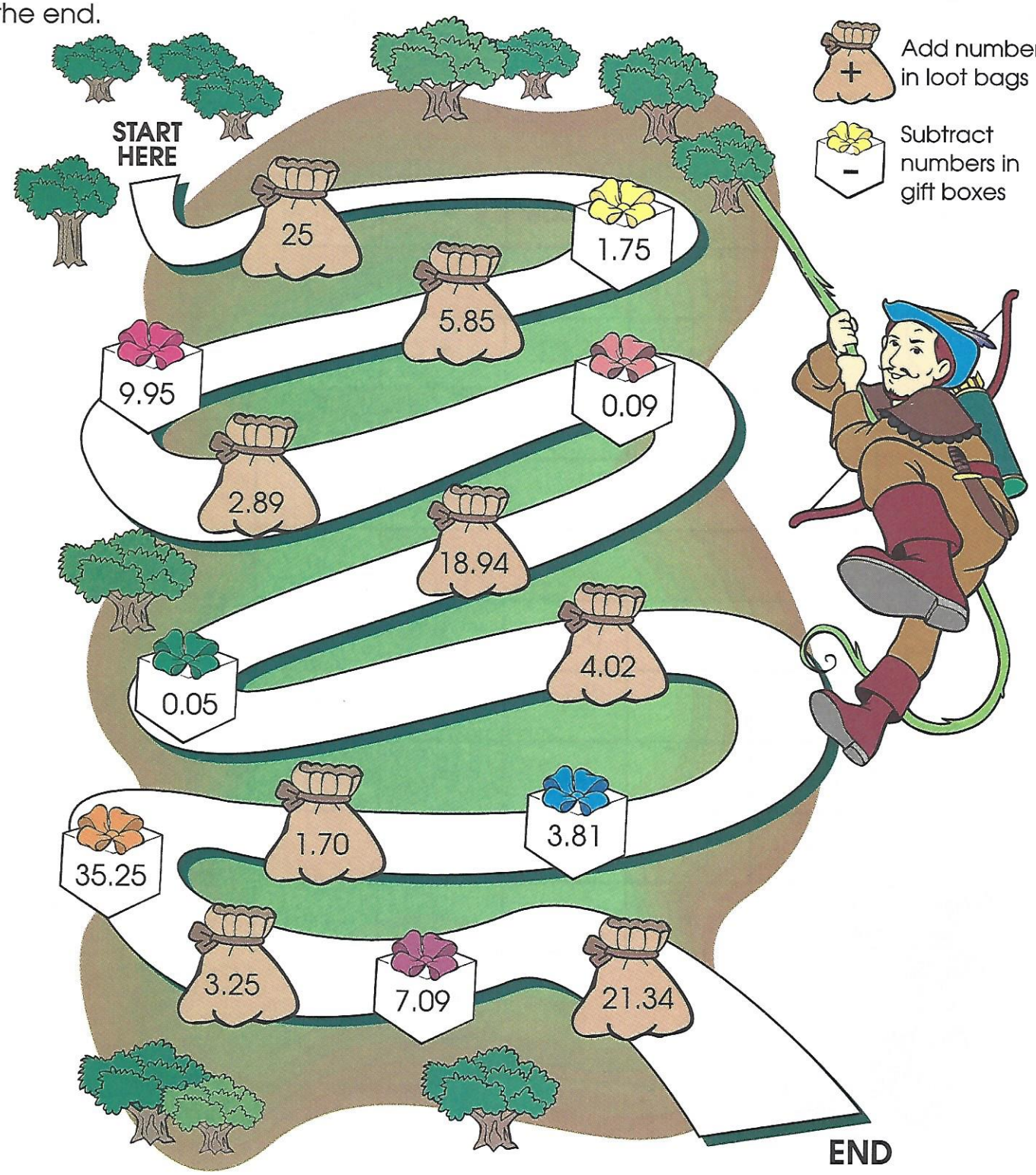


1.862	+	0.9854	=	
+		+		
0.53	+	6.72	=	
=		=		
	+		=	

				+
0.9076	+	0.995	=	
+		+		=
6.53	+	5.47	=	
=		=		
	+		=	

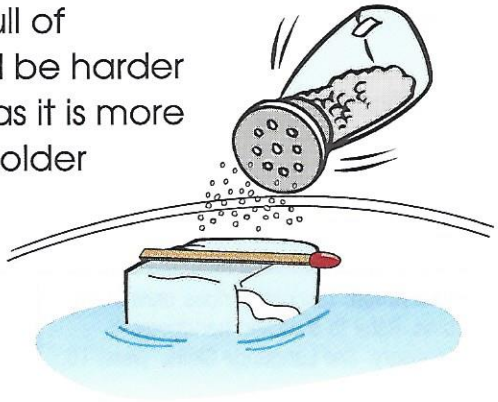
Robin Hood's Loot

As you know, Robin Hood stole from the rich and gave to the poor. Follow his stealing and giving path to figure out how much he has left for himself at the end.



Salt and Ice

Adding solute to a liquid creates a solution. This solution will be denser than the liquid water by itself. The denser a solution is, the more slowly molecules in it will move. Imagine trying to swim in a swimming pool full of pudding, which is much denser than water. It would be harder for you to move quickly in the denser medium, just as it is more difficult for molecules. The denser a solution is, the colder it has to be before the solution will freeze.



Part 1

Fill a bowl or a glass with water almost to the top, and float an ice cube in it. Set an unlighted wooden match across the top of the ice cube. Make sure that some of the match hangs off the edge of the ice cube. Sprinkle salt lightly over it. Wait approximately 2 minutes. Then, try to lift the match upward.

What happened? _____

_____

Why do you think this happened? _____

_____

Part 2

Fill three glasses half-full with water, each having the same temperature. Put a little piece of masking tape on each one and label them #1, #2 and #3. Leave #1 as plain tap water. Add 1 teaspoon of salt to #2 and stir. Add 1 tablespoon of salt to #3 and stir. Next, place an ice cube in each glass. Add the cubes to the three glasses at the exact same time, and do not stir. Time how long it takes for the ice cube in each glass to melt. Record your data on the chart below.

Sample	Time to Melt (seconds)
#1	
#2	
#3	

	Language Skills	Spelling	Reading
Monday	Have your child choose a topic, make a plan for writing, then begin work on a rough draft.	Pretest your child on these spelling words: adapt admire advance address admit advantage adequate admonish advent adhere adopt adventure adjective adorn advice adjust adult advise Correct the pretest, add personalized words and make two copies of this week's study list.	Introduce this week's reading selection or continue with the book from last week.
Tuesday	**Punctuation:** Discuss various uses of the *colon*. Refer to a writing handbook, if necessary. *See* Language Skills, Week 16, number 1. Have your child complete **Colons and Lists** (p. 170).	Study this week's spelling words. Have your child complete **Classified Ads** (p. 171).	Discuss the current reading book in a conference. Focus on vocabulary.
Wednesday	Have your child write five sentences that contain lists, using colons and other punctuation correctly. The following are some possible topics for the sentences: circus animals, clothing, entertainment, cars and apples.	Have your child use each of this week's spelling words correctly in a sentence.	**Library Resources:** Familiarize your child with other resource materials, such as almanacs and *The Guinness Book of World Records.* Generate (or have your child generate) twelve questions regarding world records. **Example:** *How tall is/was the tallest human being on record?* Then, have your child look in *The Guinness Book of World Records* to find the answers.
Thursday	Explain that colons are also used when writing play dialogue. *See* Language Skills, Week 16, number 2. Have your child write a dialogue between two people. Then, have him/her convert the dialogue into a short play or skit. Have your child write out the script, using colons after the characters' names and including any appropriate stage directions. Act out the completed scene with your child.	Have your child study this week's spelling words.	Discuss the concept of a biographical dictionary. Have your child read one at the library or check one out and read it at home. Ask your child to describe how the book is organized and what types of information it contains. Have your child find two people who have similar backgrounds or fields of study. Then, have your child compare and contrast the two in a paragraph.
Friday	Refer to a writing handbook and review rules for capitalization and commas. Give your child several sentences with errors in capitalization and use of commas. Have your child read each sentence carefully and mark any necessary changes. Have him/her rewrite the sentences correctly.	Give your child the final spelling test. Have your child record pretest and final test words in his/her word bank.	Hold a reading conference in which you discuss the sequence of events in this week's story.

Math	Science	Social Studies
Decimal Fractions Help your child explore a practical application of adding and subtracting decimal fractions: balancing a checkbook. Create a realistic scenario (owning a business) in which your child must keep track of deposits and withdrawals. Have your child design checks for his/her business, then keep track of at least fifteen transactions related to the account.	**Acids and Bases** *Acids* and *bases* are two categories of chemical compounds. Discuss acids with your child today. Have your child read about some common acids and their uses. *See* Science, Week 16, number 1.	**Roaring Twenties** The United States experienced a period of growth and prosperity following World War I. Have your child read about some of the fads and fascinations of the 1920s. *See* Social Studies, Week 16, numbers 1and 2. Have your child list some of the changes in the country that made the 1920s "roaring."
Give your child additional practice subtracting decimal fractions. Have your child complete **Charting the Weather** (p. 172).	Discuss bases with your child today. Explain the relationship between bases and acids. Have your child read about some common bases and their uses. *See* Science, Week 16, number 2. Have your child read about how pioneer families made soap from animal fats and potash.	Some of the biggest changes in the country after the war were related to women. Have your child read about the changing roles of women in the 1920s. *See* Social Studies, Week 16, number 3. Have your child describe ways in which women had become more independent in the years during and following the war.
Review metric conversions. Focus on centimeters, meters and millimeters. Gather 10 or 12 facts about the sizes of different lizards. **Examples:** A common iguana is 200 cm long. Use these facts to generate fifteen situational problems. **Example:** *How many meters long is a common iguana?* The problems should require your child to make metric conversions and to add and subtract decimals.	Introduce the use of chemical indicators for identifying acids and bases. *See* Science, Week 16, number 3. Have your child complete **Acids and Bases** (p. 173). He/she will need red and blue litmus paper to perform the experiment.	Read about the music popular in the 1920s. Have your child research and write about a famous jazz musician from that period.
Teach your child to estimate before multiplying decimals. Estimating first will help your child decide if he/she has solved the problem correctly. *See* Math, Week 16, number 1. Have your child estimate these costs: 5 basketballs at $48.98 each 15 books at $6.89 each 8 pencils at $0.39 each 7 sheets of stickers at $1.23 each	Vinegar and other acids react with baking soda. Help your child conduct an experiment in which he/she dilutes vinegar and observes its reaction with baking soda. *See* Science, Week 16, number 4.	During the 1920s, people had more leisure time to enjoy organized sports and more people participated in sports. Sports heroes from the 1920s include Babe Ruth and Lou Gehrig. Have your child choose a sport. Have your child write about it as though he/she were reporting on a specific game for a radio broadcast.
Review how to multiply decimal fractions. *See* Math, Week 16, number 2. Give your child ten problems that involve multiplying decimal fractions. *See* Math, Week 16, number 3. Have your child estimate each product before multiplying, then compare the estimates with the actual products.	Have your child read about glue in several reference materials. Teach him/her how to make a simple glue from skim milk, vinegar and baking soda. *See* Science, Week 16, number 5.	Arrange for your child to perform a community service. Have your child write in his/her Social Studies Journal.

TEACHING SUGGESTIONS AND ACTIVITIES

LANGUAGE SKILLS (Punctuation)

1. Review the most common uses of the colon.

   A colon is used between the hour and minutes when time is displayed in digital format.

   A colon is used after the salutation in a business letter.

   A colon is used to introduce a list or series of things, especially after the words "as follows" or "the following."

   Example: I will need the following ingredients for the pie: flour, butter, eggs and apples.

   A colon is not used if the series is preceded by an expression such as "for example," "namely," "for instance" or "that is." Such expressions are set off with commas.

   Example: I will need several things for the pie, namely, flour, butter, eggs and apples.

2. A colon is used after the speaker's name in play directions. Quotation marks are not used. Stage directions are inserted between the speaker's name and the colon and are put in parentheses and italics.

MATH (Decimal Fractions)

1. When estimating decimal products, round to a whole number to make the multiplication easy.

   Example: Your neighbor asked you to baby-sit for 4.75 hours at a rate of $3.25 per hour. How much will you earn? Estimate the answer first. Do the multiplication mentally by rounding to the nearest whole numbers. Think of 4.75 as 5; think of $3.25 as 3. You would make approximately $15 baby-sitting. (actual answer = $15.44)

2. When multiplying decimal fractions, you do not need to line up the decimal points as with addition and subtraction. After multiplying, count the total number of places after the decimals in the factors. There should be the same number of places following the decimal point in the product.

3. Have your child copy the following ten problems onto lined paper. Have him/her estimate, then solve, each problem. Your child may check his/her answers using a calculator.

36.5 x 8.4	516.24 x 0.3	3.614 x 0.57	516.4 x 0.04	462.3 x 7.1
742.01 x 3.4	0.316 x 1.7	486.1 x 5.6	56.01 x 0.8	20.147 x 3.8

SCIENCE (Acids and Bases)

1. *Acids* have special properties: They taste sour; they conduct electricity; they can be corrosive; and they react with bases to form salts. Explain that some acids are weak (vinegar) and some are strong (sulfuric). Some common acids are found in citrus fruits, aspirin, eyewashes, detergents and insects. Acids are used to etch glass and metals, to clean cement and bricks, in cooking and in swimming pools. Have your child read about acids, including their origins and their uses.

   Review some common acids and where they are found:

   acetic acid (vinegar)

   carbonic acid (carbonated beverages)

   hydrochloric acid (gastric juices in stomach)

   nitric acid (fertilizers and explosives)

   sulfuric acid (car batteries)

2. *Bases* also have special properties: They have a bitter taste; they are slippery; they can be corrosive; they conduct electricity; and they react with acids to form salts. Explain that some bases are weak (aluminum hydroxide) and some are strong (sodium hydroxide). Just like strong acids, strong bases will burn the skin. Have your child read about bases, including their origins and their uses.

Review some of the common bases and where they are found:

ammonium hydroxide (household ammonia)

aluminum hydroxide (deodorants)

calcium hydroxide (mortar and plaster)

magnesium hydroxide (antacid)

sodium hydroxide (drain cleaner, production of soap)

3. Ask whether your child has ever tested or observed someone testing the water in a swimming pool before adding chemicals. That ph test is an indicator for acids and bases. The indicator changes colors in the presence of an acid or base. The strength of an acid or base can be determined by the color of the test results.

4. *You will need:* 5 clear plastic cups, water, vinegar, baking soda, paper towels and a measuring teaspoon

   Directions:

   a. Label the five cups A, B, C, D and E.
   b. Add 1 tsp. of water and 1 tsp. of vinegar to cup A.
   c. Add 1 tsp. of water and 5 tsp. of vinegar to cup B.
   d. Add 1 tsp. of water and 10 tsp. of vinegar to cup C.
   e. Add 1 tsp. of water and 15 tsp. of vinegar to cup D.
   f. Add 1 tsp. of water and 20 tsp. of vinegar to cup E.
   g. Place cups A, B, C, D and E on paper towels.
   h. Dump one teaspoon of baking soda into each cup.
   i. Observe the reactions—speed and volume—in each cup. Record your observations on a chart.

   Discuss your child's observations. Have your child find the answers to the following questions: *What gas was produced in each reaction? Why are baking soda and sour milk used in many recipes? Why is a paste of baking soda sometimes used on insect bites?*

5. *You will need:* skim milk, vinegar, baking soda, water, a metric measuring cup, a measuring tablespoon, a small jar with a lid, a popsicle stick and cooking oil

   Directions:

   a. Heat 450 mL of skim milk and 5 Tbs. vinegar in a pan. Stir mixture while heating until curdling begins.
   b. Remove from heat and continue to stir.
   c. After cooling, pour off the liquid (whey).
   d. Place the remaining curds in a small jar. Add 60 mL water and 1 Tbs. baking soda. Stir with the popsicle stick until thoroughly mixed. Add a few drops of cooking oil and stir.
   e. Place the lid on the jar. The glue will remain moist until you need it in an activity.

SOCIAL STUDIES (Roaring Twenties)

1. Have your child write the names of Presidents Harding, Coolidge and Hoover and their years in office on index cards. Then, have your child write at least three things that happened during each man's administration and place the card on the time line.

2. The years after WWI were prosperous and happy ones. These years were called the Roaring Twenties. Have your child read about the 1920s and define the following terms: *bootlegging, Charleston, flappers, prohibition, speakeasy* and *suffrage.*

3. With the passing of the Nineteenth Amendment in 1920, women finally earned the right to vote. Many women at this time began to join the workforce and went to college as well. Electricity in homes provided women with time-saving devices, such as washing machines and vacuum cleaners. Women's dress styles changed along with forms of entertainment.

Colons and Lists

Use a **colon** when writing a list of items if "follows" or "the following" is used in the introduction and the list of items immediately follows. Commas (and sometimes semicolons) are used to separate the items in the list.

Example: The clown was wearing **the following:** striped pants, a polka-dot shirt, floppy shoes and baggy socks.

Do not use a colon if the list of items is introduced by such words as "namely," "for instance," "for example" or "that is." Instead, set off the phrase with commas.

Example: A clown could wear, **for example**, striped pants, a polka-dot shirt, floppy shoes and baggy socks.

There are eight different outfits that could be made from the clothes listed. **Fill in** the blanks and correctly punctuate the eight different lists.

Ties (striped, paisley) **Shirts (white, blue)** **Pants (khaki, gray)**

1. John could wear the following a striped tie white shirt and khaki pants.
2. He could also wear for instance a striped tie _____ shirt and khaki pants.
3. John could wear the outfit as follows a paisley tie white shirt and khaki pants.
4. He might try wearing for example a _____ tie blue shirt and khaki pants.
5. He could try namely a striped tie white shirt and gray pants.
6. Otherwise, he might try as follows a striped tie _____ shirt and gray pants.
7. He could outfit himself in the following a paisley tie white shirt and _____ pants.
8. John could choose a last choice as follows a paisley tie _____ shirt and gray pants.

Classified Ads

adapt
address
adequate
adhere
adjective
adjust
admire
admit
admonish
adopt
adorn
adult
advance
advantage
advent
adventure
advice
advise

Write each spelling word under the proper category (noun, verb or adjective). Some words can act as more than one part of speech.

Noun

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

Verb

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____

Adjective

1. _____
2. _____

Write a brief classified ad for a newspaper using at least five spelling words.

Example: Adults wanted. Please adopt my pet mouse. Mice adapt easily to new surroundings. My mom admonished and advised me to give him up.

_____

_____

_____

_____

_____

Charting the Weather

For four months, the students in Ms. Forecaster's class charted the sunny, partly sunny and cloudy days. The following chart shows their findings to the nearest tenth.

MONTH	SUNNY	PARTLY SUNNY	CLOUDY
October	13.4	12.8	4.8
November	7	13.1	9.9
December	6.3	11	13.7
January	8.4	16.7	5.9

1. How many more sunny days did January have than December? _____

2. In November, how many more cloudy days were there than sunny days? _____

3. How many more partly sunny days were there than sunny days in January? _____

4. What is the difference in days between the month with the most cloudy days and the month that had the fewest cloudy days? _____

5. Which month had the most sunny days? How many more sunny days did it have than the month with the second most? Which month came in second? _____

6. Which month had the most cloudy days? Which month had the fewest cloudy days? How many total cloudy days were there in these four months? _____

Extension: Find the total number of sunny, partly sunny and cloudy days in these four months. Then, find the average number of days for each type of weather.

Acids and Bases

Acids and **bases** are chemical compounds. Some of these compounds are strong and abrasive. Many are used as cleaning agents. Litmus paper is an indicator. Indicators are affected when acid or base is present in a substance. Blue litmus paper turns red when dipped in an acid. Red litmus paper turns blue when dipped in a base.

Use blue and red litmus paper to test each one of the substances on the chart. Record the results by writing the color the paper turns when dipped and whether the substance is an acid or a base. The first one is done for you.

Substance	Blue Litmus	Red Litmus	Acid, Base or Neither
lemon juice	red	red	acid
vinegar			
ammonia			
orange juice			
tea			
milk			
baking soda and water			
cleanser and water			
water			
vinegar and salt			
grapefruit juice			
antacid pills and water			
cola			

	Language Skills	Spelling	Reading
Monday	**Punctuation** A *semicolon* is used to join two independent clauses that are closely related. An independent clause is a group of words that could stand as a complete sentence by itself. **Example:** Rob bought a new bat; the old bat was in bad shape. Have your child join related sentences using a semicolon. Have your child complete **Semicolon** (p. 178).	Pretest your child on these spelling words: probe, project, propel produce, prolong, proportion profane, promise, propose profound, promote, prosper progress, pronoun, protein prohibit, pronounce, provoke Correct the pretest, add personalized words and make two copies of this week's study list.	Introduce this week's reading selection or continue with the book from last week.
Tuesday	Review other uses of the semicolon. *See* Language Skills, Week 17, numbers 1 and 2. Have your child write five original sentences using semicolons.	Study this week's spelling words. Have your child complete **You're a Pro!** (p. 179).	Discuss the current reading book in a conference. Focus on predicting outcomes.
Wednesday	*Quotation marks* set off the exact words of the speaker. The speaker's first word begins with a capital letter. *See* Language Skills, Week 17, numbers 3 and 4 for more on punctuation with quotation marks. Write several sentences containing dialogue on the chalkboard. Omit all punctuation and capitalization. Have your child add correct punctuation and capitalize letters where necessary.	Have your child use each of this week's spelling words correctly in a sentence.	**Inference:** To infer is to interpret meaning from given information. Ask your child to make inferences about characters in this week's book. Discuss the clues that led to your child's conclusions. Have your child use inference to write a profile of one character. Ask your child to describe the character, where he/she lives, his/her greatest achievement, favorite food, occupation and hobbies.
Thursday	Have your child write a short story that contains a lot of dialogue. Once your child has written a draft of the story, have him/her go back through and check his/her use of quotation marks and other punctuation.	Have your child study this week's spelling words.	Read an article to your child. When you are finished reading, ask questions that will require your child to infer information from the article. *See* Reading, Week 17.
Friday	Review the use of apostrophes in contractions and possessives. Then, explain that apostrophes can also be used to form plurals of letters and numbers (6's, W's) and to take the place of omitted letters and numbers ('99 for 1999 or misbehavin' for misbehaving). Have your child scan a book or magazine for apostrophes. Have your child describe the function of each apostrophe found.	Give your child the final spelling test. Have your child record pretest and final test words in his/her word bank.	Hold a reading conference. Discuss your child's earlier predictions and compare with the actual outcomes.

Math	Science	Social Studies
Decimal Fractions Use situational problems to show your child the practical applications of multiplying decimals. Discuss other situations in which it may be necessary to multiply decimals. Have your child complete **Comparison** (p. 180).	**Chemical Reactions** Introduce your child to the concept of a chemical reaction. Signals that a chemical reaction has occurred include a change in color (indicators, ripening of fruits), the production of heat or light (striking a match, burning a candle) or the production of a gas (antacid in water, baking soda and vinegar) or solid (vinegar in skim milk). *See* Science, Week 17, number 1.	**Great Depression** Introduce the Great Depression and explain what it was. *See* Social Studies, Week 17. The depression was initiated by the fall of the stock market. For over 10 years, many Americans were hungry, jobless and homeless. Have your child research and write about President Hoover's actions during the depression.
Help your child discover a pattern in multiplying decimal fractions by 10. Give your child several problems to solve (e.g., 1.25 x 10). Your child will soon see that to multiply a decimal fraction by 10, he/she simply has to move the decimal point one place to the right. Extend the pattern to multiplying by other powers of ten, such as 100 and 1,000.	Rusting metal is the evidence of a chemical reaction we see every day. Tools, bridges, poles, outdoor furniture, statues and structures must be painted and/or treated to prevent rusting and corrosion. Moisture and other gases in the air react with metals and cause them to tarnish or corrode. Have your child conduct an experiment on the rusting of iron. *See* Science, Week 17, number 2.	Discuss the many causes of the Great Depression, including the stock market crash, bank failures, uneven distribution of wealth and the farm depression.
Teach your child to estimate before dividing decimals. To estimate a division problem, round the dividend and the divisor to whole numbers, then divide. Estimating first will help your child decide if he/she has divided correctly. If the whole number estimates both end in zero, cancel the zeros to make the division even easier. Give your child several division problems with decimal fractions to estimate.	With your child, review the ice and salt experiment from Week 15. Then, have your child conduct an experiment with aluminum foil. *See* Science, Week 17, number 3.	Have your child read about Roosevelt's New Deal programs that provided jobs to out-of-work Americans. Have your child add Franklin Roosevelt's terms as president to the time line. Have him/her read about Roosevelt's terms in office and write about some of his greatest accomplishments as president.
Geometry: The *circumference* of a circle is the distance around its outer edge. To find the circumference of a circle, multiply its diameter by a special number called *pi*, represented by the symbol π and equaling approximately 3.14. Introduce your child to the formula for finding the circumference of a circle: $C = \pi \times d$ (circumference equals pi times diameter). Have your child complete **Circumference of Circles** (p. 181).	Have your child conduct an experiment with household ammonia and vinegar. *See* Science, Week 17, number 4.	Help your child prepare a project related to the Great Depression. Arrange for your child to interview a person who remembers 1929 and the years of hardship that followed or have your child paint a picture of a "Hooverville." *See* Social Studies, Week 17, numbers 1–4 for more project ideas.
The *area* of a circle can be found using the formula $A = \pi \times r^2$ ($\pi \approx 3.14$, r = radius). Have your child use a ruler and a compass to draw six circles with radii of 2 in., 2.5 in., 6 cm, 6.8 cm, 3.5 cm and 5.2 cm. Have your child calculate the area of each circle. **Example:** The circle with a radius of 2 inches has an area of 12.56 in.^{2} $3.14 \times (2 \times 2) = 12.56$	Have your child conduct a simple experiment with fresh fruit and preservatives. Have your child take a bite out of an apple and place the piece on a paper towel. Cut a second piece of the apple with a knife and place it on a paper towel. Cut a third piece with a knife, dip it in fruit freshener solution and place on a paper towel. Have your child observe the apple pieces during the day. What happens?	Arrange for your child to perform a community service. Have your child write in his/her Social Studies Journal.

TEACHING SUGGESTIONS AND ACTIVITIES

LANGUAGE SKILLS (Punctuation)

1. A *semicolon* is used instead of a comma in a compound sentence when one clause contains commas in a series.
   Example: I bought ice cream, peanut butter, jelly and bread; but I forgot the eggs.

2. Semicolons are also used to separate items in a series when the items contain commas.
   Example: On our trip to California, we swam, snorkeled and surfed in the ocean; hiked through redwood forests; saw the sights at Disneyland and drove past the beautiful homes in Los Angeles.

3. When the speaker is named first, the comma comes before the opening quotation mark.
   Example: The man at the store said, "This is the last day of the sock sale."

   When the speaker is named last, the comma comes immediately before the closing quotation mark.
   Example: "Then, I had better buy all the socks you have left," the customer replied.

   When the speaker is named in the middle of the quotation, commas are used to separate it.
   Example: "If you prefer," said the salesman, "I can ring these up while you keep looking."

4. A *question mark* or *exclamation point* comes before the closing quotation mark when the punctuation is part of the direct quote.
   Example: Look at the beautiful sunset!" called Fran.

   A question mark or exclamation point comes after the closing quotation mark when the punctuation is not part of the direct quote.
   Example: Did you see the sign that read "Do not feed the animals"?

READING (Inference)

Ask your child to listen carefully as you read the following article. Follow up the article with the questions below.

The whole town of Greenville is nervous. There has been so much rain lately that the people are afraid their town will be flooded. Greenville hasn't flooded since 1988 when there was so much rain that Otter River overflowed its banks. Many people's homes and businesses were destroyed by all the water. Those businesses that were spared were still shut down for several weeks. The city of Greenville was virtually shut down! Now there is a chance that the same thing might happen again.

Floods can be very damaging. The common causes of river floods are too much rain and/or the sudden melting of large amounts of snow or ice. Under these conditions, rivers may receive more than ten times as much water as their beds can hold.

It has been an unusually wet spring. The Otter River is already approaching its capacity and more rain is on the way. The weather forecast predicted 6 more inches of rain over the next two days. That is more rain than the city usually gets in three months during this time of year. Everyone is concerned. Fortunately, the city of Greenville built a levee after the flood of 1988. The people of Greenville are hoping that the levee will hold the water back.

1. If Greenville gets more rain, which of the following things could happen?

The levee could break.	The library could float away.
The students could go boating.	The city could move.
Homes could be lost.	The levee could hold the water back.
Businesses could be lost.	The river could empty.

2. In what ways could the effects of the rain be devastating?

SCIENCE (Chemical Reactions)

1. Begin your study of chemical reactions with a simple demonstration. Drop an antacid tablet into a glass of water. Have your child observe and describe the change that takes place. The evidence that this is a chemical reaction is the production of a gas (effervescence). Chemical changes take place when food is

eaten, when metals are refined, when materials burn, when metals corrode and when fireworks shoot off.

2. Help your child conduct an experiment on the rusting of iron.

   You will need: steel wool, water, vinegar, 4 plastic cups and cooking oil

   Directions: Label the cups: A, B, C and D.
   a. Tear off a small piece of steel wool, roll into a ball and place in cup A.
   b. Tear off a second piece of steel wool, roll into a ball, dip in water and place in cup B.
   c. Tear off a third piece of steel wool, roll into a ball, dip in vinegar and place in cup C.
   d. Tear off a fourth piece of steel wool, roll into a ball, dip in cooking oil and place in cup D.
   e. Record your observations of the four cups over a period of several days.

   Discuss the results. How did the steel wool react differently to each substance? In which cup(s) did you observe a chemical reaction? How could you tell?

3. Help your child conduct an experiment with aluminum foil and several salts.

   You will need: aluminum foil, copper sulfate, water, table salt, a clear plastic cup, a popsicle stick and a plastic teaspoon.

   Directions: Add about one-half cup water to the plastic cup. Add several teaspoons of table salt (sodium chloride) to the water and stir. Add several teaspoons of copper sulfate to the water and stir. **Safety Note: Wash hands thoroughly if they come in contact with the copper sulfate.** Tear off several small pieces of aluminum foil, roll into tiny balls and place in the cup of salt solution. Observe changes over the next 5 minutes. Set the cup aside and observe again after several hours. Discuss the changes that occur.

4. Help your child conduct an experiment in which an acid is used to neutralize a base.

   You will need: clear household ammonia, vinegar, phenolphthalein indicator, water, clear plastic cups, a popsicle stick and an eyedropper.

   Directions: Fill one plastic cup about half-full with water. Pour some ammonia into a second cup. Using the eyedropper, add 20 drops of the ammonia to the water. Be sure to use only clear, non-sudsing ammonia. Stir with the popsicle stick. Add 5 drops of the phenolphthalein indicator. Record the color that appears in the ammonia solution. Pour some vinegar into a third cup. Wash the eyedropper thoroughly under running water to clean out the ammonia. Add the vinegar, drop by drop, to the ammonia solution. Stir with the stick after each drop. Count the number of drops of vinegar needed to cause the pink color to disappear completely. You may repeat the experiment by adding more or less than 20 drops of ammonia to the water.

   Why was the phenolphthalein added to the ammonia or the base?

   At what point can you say that the vinegar had neutralized the base?

   Predict what would happen if a drop of ammonia were added to the solution at that point.

   Why are bases used in antacid tablets for upset stomachs?

SOCIAL STUDIES (Great Depression)

BACKGROUND

The Great Depression stands as the worst economic disaster in U.S. history. Lasting for over a decade, it affected every type of business and industry. At the height of the depression, unemployment rose to nearly 13 million, and America became a nation of bread lines and soup kitchens. Only massive federal programs initiated by President Roosevelt's New Deal prevented the depression from becoming worse. Even then, the economy did not fully recover until the start of World War II.

Have your child choose from the following project ideas.

1. Write a paragraph of what a person standing in a bread line might be thinking and/or feeling.
2. Write a front-page headline for a newspaper printed on Tuesday, October 30, 1929.
3. Discuss what jobs today are safe from layoffs. Look in the paper to see what businesses are laying off employees. What might these jobless people do to continue to support their families?
4. Many songs were written during the depression that told about the hard times. "Brother, Can You Spare a Dime?" is just one example. Help your child find the lyrics and melody of the song. Have your child read the lyrics carefully (and listen to a recording, if possible), then write an analysis of the song's meaning.

Semicolon

A **semicolon** is used to join two independent clauses that are closely related if a conjunction is not used. An **independent clause** is a group of words that could stand as a complete sentence by itself.

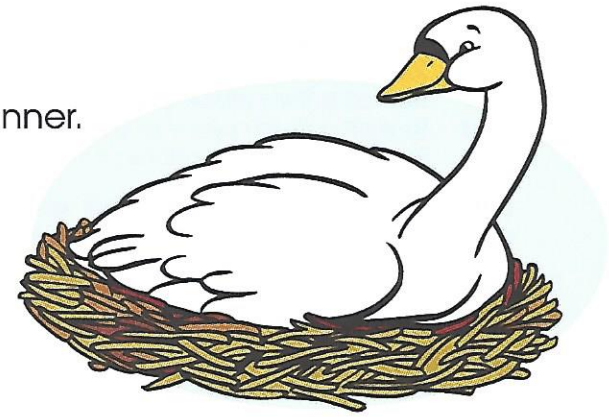
Examples:

The boys were in trouble; they were late for dinner.

(These sentences are closely related. The second explains the first.)

It was the third of September.
The boys were in trouble.

(These sentences aren't closely related. Write them as two separate sentences.)



Read each pair of sentences. **Rewrite** those that could be joined by a semicolon.

1. The tiny hummingbird builds a small nest. Its jelly bean-sized eggs fit nicely into it.

2. Some birds build with unusual materials. You may find string or ribbon woven into a nest.

3. A nest's location can tell you a bird's diet. Most birds live near their food supply.

4. A gull's nest is on the shore. Gulls eat fish and other kinds of seafood.

5. A woodpecker lives in a hole in a tree. It eats insects that live in trees.

6. Some birds take over old nests. Purple martins live in birdhouses.

7. A woodpecker makes a hole to live in and later moves out. An elf owl moves right into it.

8. A swan builds a nest among the reeds. The reeds help hide the nest from the swan's enemies.

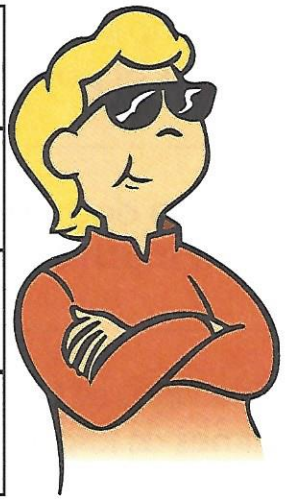
You're a Pro

1. probe
2. produce
3. profane
4. promise
5. profound
6. progress
7. prohibit
8. project
9. prolong
10. promote
11. pronoun
12. pronounce
13. propel
14. proportion
15. propose
16. prosper
17. protein
18. provoke

Complete the magic square. **Write** the number of each spelling word in the lettered square that corresponds to its definition. Two of the words will not be used.

A. create; vegetables
B. to stop
C. stir up; make angry
D. speak clearly; articulate
E. stick out; a plan
F. deep and intense
G. a replacement for a noun
H. suggest
I. move forward
J. an essential part of diet
K. growth; to improve
L. blaphemous
M. have good fortune
N. to raise to a higher level
O. agreement to do something
P. to lengthen

A	B	C	D
E	F	G	H
I	J	K	L
M	N	O	P



Check your work by adding each row and then each column of numbers. If all the sums are the same, you have matched correctly.

Write the two words that were not included in the square.

1. _____ 2. _____

Write the six words that can be used either as nouns or as verbs.

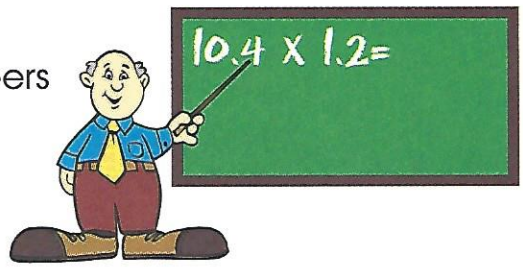
1. _____ 2. _____

3. _____ 4. _____

5. _____ 6. _____

Comparison

Mr. Bigfoot's class was comparing numbers by multiplying decimals. Round your answer to the nearest hundredth.



1. Andy's shoe is 10.4 inches long. Tony's is 1.2 times as long. How long is Tony's shoe?

   _____

2. Alicia can jump 24.8 inches. Jill can jump 1.05 times as high. How high can Jill jump?

   _____

3. The paper basket holds 288 sheets of paper. It is 0.25 full. How many sheets of paper are in it?

   _____

4. Misha's dog weighs 98.5 pounds. Tom's dog weighs 1.25 times as much. How much does Tom's dog weigh?

   _____

5. The area of Mr. Bigfoot's classroom is 981.75 square feet. The gym is 4.50 times as large. What is the area of the gym?

   _____

6. The box holds 48 pencils. It was 0.75 full. How many more pencils would fit in the box?

   _____

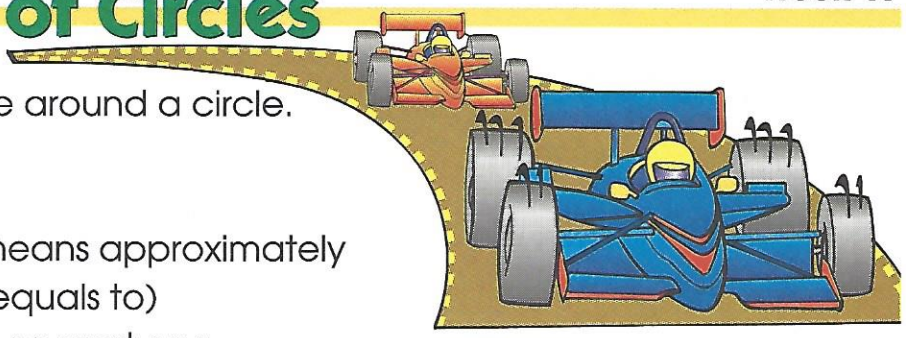
7. Amy is 5.250 feet tall. The ceiling is 2.075 times Amy's height. How tall is the ceiling?

   _____

Extension: Place the decimal point in the underlined number.

1. 213.05 x 2.3 = 490015
2. 4.87 x 046 = 2.2402
3. 601 x 0.08 = 4.808

Circumference of Circles



Circumference is the distance around a circle.

$C = \pi \times d$

π (pi) ≈ 3.14 or $\frac{22}{7}$ ($\approx$ means approximately equals to)

d = diameter

Use $\pi \approx 3.14$ and round to the nearest one.

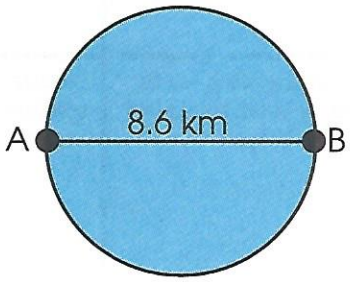
Example 1:

$C = \pi \times d$

$C \approx 3.14 \times 8.6$

$C \approx 27.004$ km

$C \approx 27$ km



Example 2:

The radius of the circle is 16 mm.

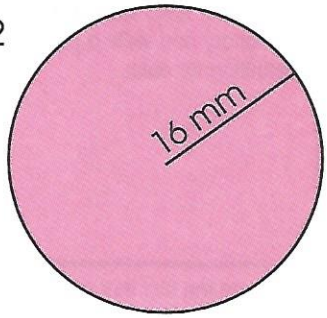
Diameter is twice the radius.

So, $d = 16 \times 2 = 32$

$C \approx 3.14 \times 32$

$C \approx 100.48$ mm

$C \approx 100$ mm

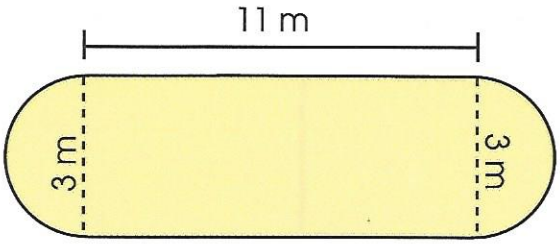


Example 3:

Find the perimeter of the figure.

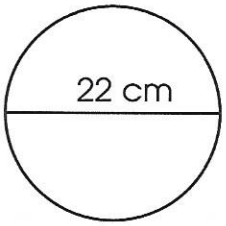
Circumference of the circle $\approx 3.14 \times 3 \approx 9.42$ m

$9.42 + 11 + 11 = 31.42$ m

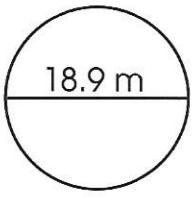


Find the circumference of each circle. Use $\pi \approx 3.14$ and round to the nearest one.

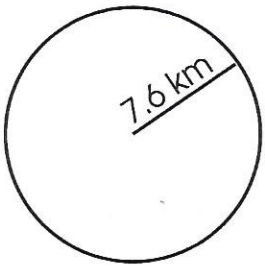
1.



2.



3.



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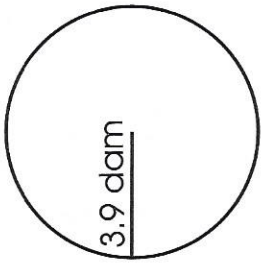
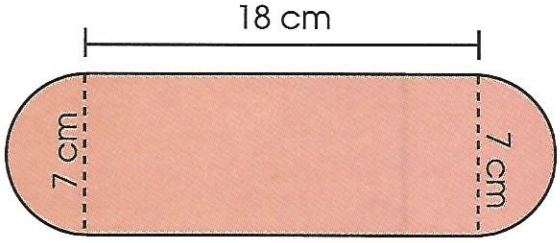
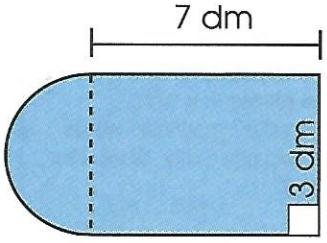


Find the perimeter of each figure.

5.



6.



	Language Skills	Spelling	Reading
Monday	Have your child choose a topic, make a plan for writing, then begin work on a rough draft.	Select words from the past 8 weeks for this week's pretest. Correct the pretest, add personalized words and make two copies of this week's study list.	Introduce this week's reading selection or continue with the book from last week.
Tuesday	**Using a Dictionary:** List ten vocabulary words that are unfamiliar to your child. Have your child look up the words in a dictionary and write a paraphrased definition for each.	Have your child categorize spelling words from the past 8 weeks by vowel sound and spelling.	Discuss the current reading book in a conference. Focus on the plot and the changing excitement level.
Wednesday	Discuss the fact that a word may have more than one meaning. Also review the concept of a *synonym*. Have your child complete **This Is So Fine** (p. 186).	Have your child look up spelling words in the dictionary. Have him/her write the proper pronunciation(s) of each word on the index cards in the word bank.	**Cause and Effect:** Teach your child to find cause and effect relationships in a story. Have your child read the story, **Wherefore Art Thou?** (p. 187) and write five cause-and-effect statements.
Thursday	Play a game to familiarize your child with dictionary language. Choose a word from the dictionary that is unfamiliar to you. Make up your own definition of the word, imitating the style of a dictionary entry. Read your definition and the dictionary definition aloud. Your child earns points by guessing which is the correct definition. You earn points by fooling your child. Switch roles and repeat with other words.	Help your child make a code for the letters of the alphabet. Encode the review spelling words. Have your child decode the words. Have your child use the code to encode other spelling words from the past 8 weeks.	Have your child write five cause-and-effect statements about this week's reading book.
Friday	Review the uses of the hyphen. *Hyphens* are used in the number words twenty-one through ninety-nine. They are used in some compound words. Hyphens are also used when a word must be divided in text. Check the dictionary to determine where a hyphen may be placed in a word. Have your child write hyphenated words correctly. *See* Language Skills, Week 18, numbers 1 and 2.	Give your child the final spelling test.	Hold a reading conference in which you ask questions and challenge your child to think critically about the concepts in the book.

Math	Science	Social Studies
Decimal Fractions Help your child discover a pattern in dividing decimal fractions by 10. Give your child several problems to solve (e.g., 12.5 ÷ 10). Your child will soon see that to divide a decimal fraction by 10, he/she simply has to move the decimal point one place to the left. Extend the pattern to dividing by other powers of 10, including 100 and 1,000.	**Mixtures and Solutions** Explain the difference between a mixture and a solution. A *mixture* consists of two or more substances that are not combined chemically. A *solution* is a mixture in which the substances cannot be separated by mechanical means. Show your child examples of each. Then, guide your child in a simple exploration of mixtures and solution. *See* Science, Week 18, numbers 1 and 2.	**Great Depression** Discuss whether or not Hoover was to blame for the depression. Discuss why people voted for Roosevelt in the 1932 election. Have your child compare Presidents Hoover and Roosevelt. How did their philosophies of government differ?
Provide practice for your child in dividing decimal fractions. Have your child estimate the quotient before dividing, then compare the estimate with the actual quotient. *See* Math, Week 18, number 1. Have your child complete ten problems dividing decimals. *See* Math, Week 18, number 2.	Explain to your child that solutions can also be solids or gases. Have your child conduct an experiment with salt, food coloring and water. *See* Science, Week 18, number 3.	Discuss what effect the depression may have had on children and young people.
Use situational problems to show your child the practical applications of dividing decimals. Discuss other situations in which it may be necessary to divide decimals. Have your child complete **Shopping for Soccer Supplies** (p. 188).	Sometimes when two or more liquids are mixed together, they separate. These liquids are *immiscible*—that is, they will not mix completely and permanently with each other. Oil and water are two such liquids. *See* Science, Week 18, number 4. Have your child complete **Oil and Water Emulsions** (p. 190).	Have your child read about how the International Apple Growers' Association provided apples to the jobless. *See* Social Studies, Week 18, number 1. Discuss why people would choose to sell apples on the street when they could get a free meal at a soup kitchen. Have your child set up a chart to record the profit or loss for a week of apple sales. *See* Social Studies, Week 18, number 2.
Explain that when a divisor has a decimal point, your child must shift the decimal to the right in both the divisor and the dividend. In effect, the child must multiply both numbers by 10, 100 or 1,000. *See* Math, Week 18, number 3. Give your child ten or twelve division problems in which the divisor is a decimal fraction. Observe your child's approach as he/she solves the problems on the chalkboard.	Have your child complete **Ocean in a Bottle Emulsions** (p. 191).	Because the depression brought people's spirits down, they sought diversions to brighten their days. Read about the most popular forms of entertainment during the depression years. *See* Social Studies, Week 18, number 3. Have your child compare entertainment of the 1930s to entertainment today.
Give your child more practice dividing with a decimal fraction in the divisor. Have your child complete **Dividing by a Decimal** (p. 189).	Review the chemistry concepts, terms and experiments from the past 8 weeks. *See* Science, Week 18, number 5. Have your child draw a picture of a chemist in his/her Science Log. Have your child write a paragraph describing what he/she thinks is the work of a chemist. Have your child compare today's picture and paragraph with those created in Week 10. What has your child learned?	Arrange for your child to perform a community service. Have your child write in his/her Social Studies Journal.

TEACHING SUGGESTIONS AND ACTIVITIES

LANGUAGE SKILLS (Using a Dictionary)

1. Write the following compound words on the chalkboard. Tell your child to look up each word in a dictionary and rewrite the word correctly.

oil well	forty seven	pent up	saber toothed
coal mine	twenty nine	old time	safe conduct
letter perfect	band wagon	dining room	out of date
seventy three	soft soap	gas station	once over
safety-pin	soft spoken	mother of pearl	box seat

2. Write the following divided words on the chalkboard. Some are divided correctly. Have your child rewrite those words that are not divided correctly.

fin-	pad-	mist-	ho-	fan-	sing-	ir-	vet-	musk-	list-
ish	ding	rust	mage	ciful	le	on	o	et	en

MATH (Decimal Fractions)

1. When dividing decimal fractions, always put the quotient's decimal point directly above the dividend's decimal point. Zeros can always be added to the end of decimal fractions without changing the value of the decimal fraction. There are no remainders in decimal division—continue to add zeros to the dividend and divide until there is no remainder.

2. Have your child copy the following ten problems on lined paper, then solve. Have him/her continue to add zeros to the dividend until there is no remainder. If the problem continues, have your child round the quotient to the nearest hundred thousandth.

$36.5 \div 8$	$516.24 \div 5$	$3.614 \div 7$	$516.375 \div 45$	$462.3 \div 20$
$742.01 \div 34$	$0.3145 \div 17$	$486.1 \div 5$	$56.01 \div 8$	$20.14 \div 38$

3. Your child must shift the decimal point in order to divide with a whole number divisor. Dividing by a decimal divisor is not allowed! Therefore, when a divisor is a decimal fraction, the decimal point must be shifted to the right until there are no more decimal places. The decimal point in the dividend must be moved the same number of places.

SCIENCE (Mixtures and Solutions)

1. Have your child examine several examples of mixtures.
   a. Sprinkle some salt and pepper together on a sheet of paper. Have your child examine this mixture with a magnifying glass in order to see the two different substances.
   b. Collect a scoop of dirt from outside, pour it on a sheet of paper and have your child examine it with a magnifying glass. Ask your child to describe the many materials found in the dirt.
   c. Make a fruit salad or green salad. Have your child identify the different fruits or vegetables in the salad.
   d. Pour out a small scoop of powdered chocolate or fruit drink mix onto a sheet of paper. Have your child examine it with a magnifying glass. Ask your child to describe the different substances in the drink mix.

2. Have your child examine several examples of solutions.
   a. Add a teaspoon of instant, sweetened tea to a glass of water and stir. Have your child describe the liquid solution after stirring. Can the individual particles of tea or sugar be seen? Tasted? Do they settle to the bottom of the glass after several minutes?
   b. Add a teaspoon of powdered fruit drink mix to a glass of water and stir. Have your child describe the liquid solution after stirring. Can the individual particles of the drink mix be seen? Do they settle to the bottom of the glass after several minutes?

3. Help your child conduct an experiment with salt solutions.

   You will need: 3 small jars with lids (baby food jars), 6 clear plastic cups, table salt, food coloring (red, blue and yellow), a plastic teaspoon, water, a large glass jar

   Directions:

   a. Add 3 teaspoons of salt to each jar. Add 5 drops of red food coloring to the first jar, 5 drops of blue food coloring to the second jar and 5 drops of yellow food coloring to the third jar. Screw the lids on the three jars and shake thoroughly. What happens to the salt crystals?

   b. Fill three of the plastic cups about half-full with water. Add the red salt to the first cup of water and stir. Describe the salt solution. (Not all of the salt may dissolve.) Add the blue salt to the second cup of water. Rinse the plastic spoon and stir this solution. Add the yellow salt to the third cup of water. Rinse the plastic spoon and stir this solution.

   c. Pour some of the red solution into an empty plastic cup. Add some of the blue solution and stir. What is the color change?

   d. Pour some of the red solution into an empty plastic cup. Add some of the yellow solution and stir. What is the color change?

   e. Pour some of the blue solution into an empty plastic cup. Add some of the yellow solution and stir. What is the color change?

   f. Predict the final color if all six of the solutions are mixed. Pour all six solutions into a large glass jar. Was your prediction correct?

4. When an oil-and-water solution is shaken or stirred, some momentary mixing occurs, but the oil quickly gathers back on top of the water. Soap and other detergents have a unique molecular structure in which one end of the molecule is polar and the other end is nonpolar. This structure allows the soap to *emulsify* a solution. The emulsifying process breaks up the oil concentration in a solution and suspends the oil molecules throughout the water. Mixing occurs because the polar ends of the soap molecules mix with the polar molecules of water, and the nonpolar ends of the soap molecules are attracted to the nonpolar oil molecules. Soap and other detergents are effective cleaning agents because of their ability to emulsify grease and oil and because they break the surface tension of water.

5. Use some of the following discussion questions to review your study of chemistry:

   Why is the study and knowledge of chemistry important in our world?

   What new products do we have today because of developments in chemistry?

   How is chemistry used in life science, medicine, geology, nutrition, energy and fuels, synthetic fibers, plastics and the environment?

   What are some problems associated with chemicals, their storage and their disposal?

   What are some of the common chemicals used in the classroom or home?

SOCIAL STUDIES (Great Depression)

1. In the fall of 1930, the International Apple Growers' Association, in an attempt to boost sagging sales, began to sell boxes of apples on credit to the jobless to peddle on the nation's streets. An energetic person who worked 12 long hours and sold his/her entire box might make a handsome profit of as much as $1.70 a day!

2. Men and women could get a box of 72 apples on credit. At the end of the day, they paid $1.75 for the box of apples. Each apple sold for 5 cents. A bundle of paper bags to put the apples in cost 10 cents. In addition, the peddler may have had to pay 10 cents for subway fare. Have your child make a chart to show how much a person could make selling one box of apples each day for a week.

3. Some 27 million households had radios, and listening to radio constituted the main leisure activity for some families. They listened to radio dramas, news, sports and Roosevelt's fireside chats. Going to the movies was also popular. A double feature cost only a dime. The films were generally lighthearted and avoided topics that reminded people of their everyday concerns. The craze of assembling jigsaw puzzles originated during the depression years. And carryovers from the 1920s included dance marathons and flagpole sitting.

This Is So Fine

Rewrite each sentence below, replacing the word **fine** with one of the synonyms given. Since the synonyms have slight differences in meaning, be careful to choose the correct one.

Fine: clear, delicate, elegant, small, sharp, subtle

1. The queen wore a **fine** gown encrusted with jewels.

2. I wash this blouse by hand because of its **fine** lace collar.

3. The sand in an hourglass must be very **fine** to trickle as it does.

4. We need **fine** weather for sailing.

5. Dad used a whetstone to put a **fine** edge on the knife.

6. Sometimes there is a **fine** line between innocence and guilt.

Wherefore Art Thou?

Madeline loves to play detective. She loves exploring, searching for clues and unraveling mysteries.

One morning, Mrs. Candy Gramme, the English teacher, introduced Shakespeare to Madeline's class. She had removed her earrings to demonstrate medieval helmet gear. During her presentation, she noticed that one of her earrings was missing. She could not have removed them more than 5 minutes earlier. Now, helmet off and hair a frazzle, Mrs. Gramme was bewildered.

She asked the class to read Act Three, Scene One, while she searched for her jewelry. Mrs. Gramme peered intently around her desk, kneeling on all fours. Madeline, never one to sit still very long, quietly rose from her seat and walked stealthily toward the front. As she passed Sean, she accidentally stepped on his toe. Sean squelched a scream as he woke from his mid-morning nap.

"What are you doing?" he croaked in his typically raspy whisper.

"If you get me in trouble, I'll squeeze your pinky," Madeline threatened.

Sean immediately stilled.

Madeline stood quietly behind her teacher whose back was to the class. Madeline leaned over, glancing left and right, searching for the red earring. Wait! What was that under the desk?

"There it is!" Madeline shouted. Mrs. Gramme was so startled at the sound of

Madeline's voice that she backed into Rosemary Ann Thyme's desk. Rosemary, who had been leaning back in her chair, fell over, sending her copy of *Hamlet* sailing to the tiled floor. Single sheets of Shakespeare scattered in outrageous fortune.

Madeline was still pointing under Mrs. Gramme's desk. Yes, indeed, a red shape was there, but it was not an earring. As the sheets of paper were settling, a mouse, holding a red candy wrapper, ran into the primitive radiator system.

"Oh," said Madeline disappointedly.

"Madeline," said Mrs. Gramme with remarkable patience, "would you rather be a student or a permanent fixture in the principal's office?"

"To be, or not to be: that is the question," pondered Madeline.

Shopping for Soccer Supplies

The soccer team members needed to buy their own shin guards, socks, shoes and shorts. A couple of the players volunteered to do some comparative shopping to find the store with the best deal. Use their chart to answer the questions below.

SPORTS CORNER	
Socks	3 pairs for $9.30
Shoes	2 pairs for $48.24
Shin Guards	4 pairs for $32.48
Shorts	5 pairs for $60.30

JOE'S SOCCER	
Socks	2 pairs for $6.84
Shoes	3 pairs for $84.15
Shin Guards	5 pairs for $35.70
Shorts	4 pairs for $36.36

1. Which store had the better price for socks? _____

   How much less were they per pair? _____

2. Which store had the better price for shin guards? _____

   How much would you save per pair? _____

3. How much would one pair of shoes and socks cost at Joe's Soccer? _____

   How much at Sports Corner? _____

4. Which store had the better price for shorts? _____

   How much less were they per pair? _____

5. Total the price per pair for each item at each store. If you could shop at only one store, which one would give you the best overall deal? _____

   How much would you save? _____

Dividing by Decimals

What kind of problems will these decimal glasses help you solve? Solve the problems. Then, **write** them in descending order (from greatest to least) beneath the blanks at the bottom of the page. **Write** each matching letter above the number to solve the riddle.

S $2.1\overline{)8.4} = 21.\overline{)84.}$

V $0.36\overline{)1.872}$

O $1.24\overline{)0.4712}$

N $8\overline{)1.12}$

D $0.3\overline{)17.7}$

I $6\overline{)126.}$

I $.082\overline{)0.3772}$

— $7.4\overline{)103.6}$

I $5.5\overline{)3.025}$

____ ____ ____ ____ ____ ____ ____ ____ ____

Oil and Water Emulsions

Investigation

Fill a clear glass jar about half-full with water. Add several drops of food coloring. Describe what happens._____

_____

Add about 1 inch of oil to the top of the water. Does the oil stay at the top of the jar?_____

Add several drops of food coloring to the top of the oil. What happens to the food coloring? _____

Use an eyedropper to poke a hole in the oil near the food coloring. What happens?_____

Put the lid on the jar. Shake the jar for 1 minute. Wait 1 minute. Is the oil on top? Is oil heavier or lighter than water?_____

_____

Emulsions

Let your jar of oil and water settle for a few minutes. Add a different color of food coloring to the top of the oil. Fill an eyedropper with liquid soap. Drop this soap right on the food coloring. Do this several times. What happens to the food coloring? _____

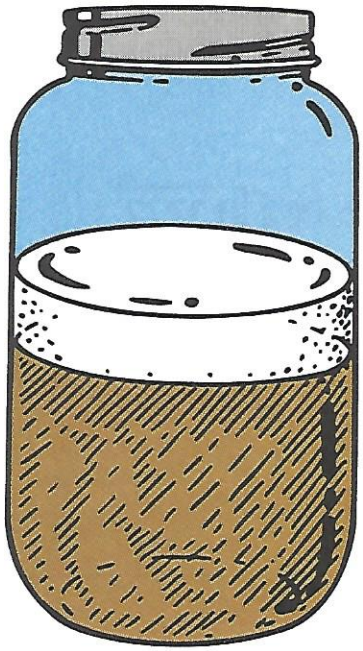
_____

Shake the jar several times. Observe the results. What happens to the oil? _____

_____

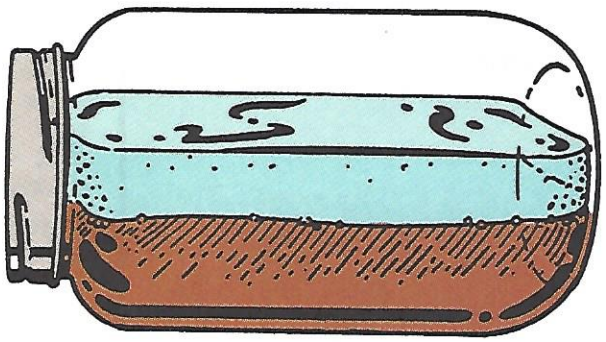
Let the jar stand undisturbed for a few minutes. What happens to the oil? _____

_____



Ocean in a Bottle Emulsions

Investigation

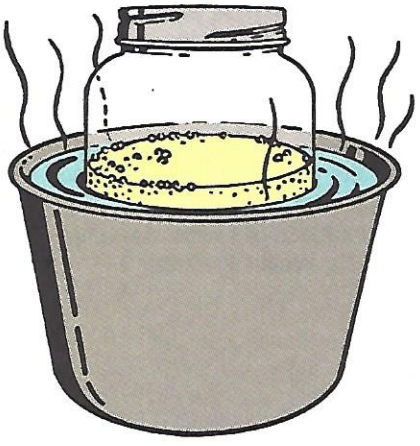


- Fill a glass jar about half-full with water. Add several drops of food coloring to the water. Use blue, blue-green or blue-red food coloring, depending on the color you want the ocean to be. Add oil to the jar until it is about 3/4 full. Tighten the lid and turn the jar on its side. Do you see the ocean effect? _____

Emulsions

- Stand the jar upright. Add 8 eye droppers full of liquid dish soap to the jar. What happens?_____
  _____
- Shake the jar vigorously. What happens?_____
  _____
- Shake the jar vigorously again, then place it in a bag filled with ice cubes. How many minutes does it take for the oil to completely return to the top?_____
- After the oil and water have separated, shake the jar again vigorously. Place the jar in a pan of warm water, near a warm radiator or in the hot sun. How many minutes does it take this time for the oil to return completely to the top? _____

Extending the Concept



- Place a spoonful of mayonnaise in one small plastic cup and a spoonful of margarine in another small plastic cup. Fill a third plastic cup half-full with milk. Set each of these in a pan of warm water, in the hot sun or near (but not touching) a warm radiator. Wait 1 hour. Describe what happens to each of these substances.
  _____
  _____
  _____
- How are these substances like oil and water?_____
  _____
  _____