

## GT June Enrichment

Parents/Guardians,






These ELA & Math resources will enrich and add depth to the thinking of your GT student through the summer because they encourage:

- Multiple pathways for solutions
- Analysis of word relationships and letters within words
- Backwards thinking (What doesn't belong?)
- Analogies
- Logic
- Creativity
- Student choice
- Multi-step problems
- Ranking (requiring analyzation)
- Analyzation of different number combinations to arrive at answers
- Error analysis

Until next time,

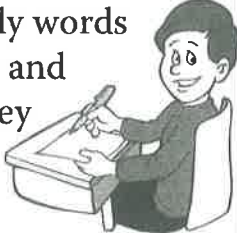

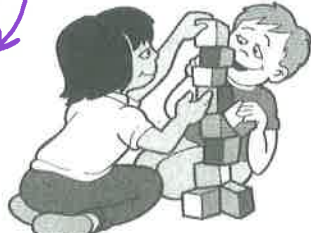



Your GT Coach

## Mysteries

<input type="checkbox"/> <b><i>Create a Board Game</i></b> Create a board game with a mystery-based theme. Be creative in your choice of pieces, game cards, and rules. 	<input type="checkbox"/> <b><i>You Be the Person Presentation</i></b> Research a mystery author. Prepare a "You be the Person Presentation" for your classmates. Be prepared to answer questions about your life and the books that you write.	<input type="checkbox"/> <b><i>Design a Book Cover</i></b> Read a mystery of your choice. Create a new book cover for the book that you choose. 
<input type="checkbox"/> <b><i>Complete a Story Map</i></b> After you have read your mystery, complete the story map. 	<input type="checkbox"/> <b><i>Free Choice</i></b> (Fill out your proposal form before beginning the free choice!) 	<input type="checkbox"/> <b><i>Get Ready for the News!</i></b> Your favorite mystery novel is being re-released to the public. Prepare a news report to discuss the book and cover the excitement of the crowds waiting to buy the book.
<input type="checkbox"/> <b><i>Prepare a Commercial</i></b> Your favorite mystery novel is being re-released to the public. Prepare a commercial for the book that includes teasers to encourage people to read the book, but don't give away the ending!	<input type="checkbox"/> <b><i>Create a Recipe</i></b> Think about all of the elements that make a good mystery. Create a recipe card that shows the ingredients of a well-written mystery.	<input type="checkbox"/> <b><i>Create Trading Cards</i></b> Think of at least six popular mysteries. Create a trading card for each book. Include the main characters and a description of the plot, but don't give away the ending! 

Check the boxes you plan to complete. They should form a tic-tac-toe across or down. All products are due by: \_\_\_\_\_.

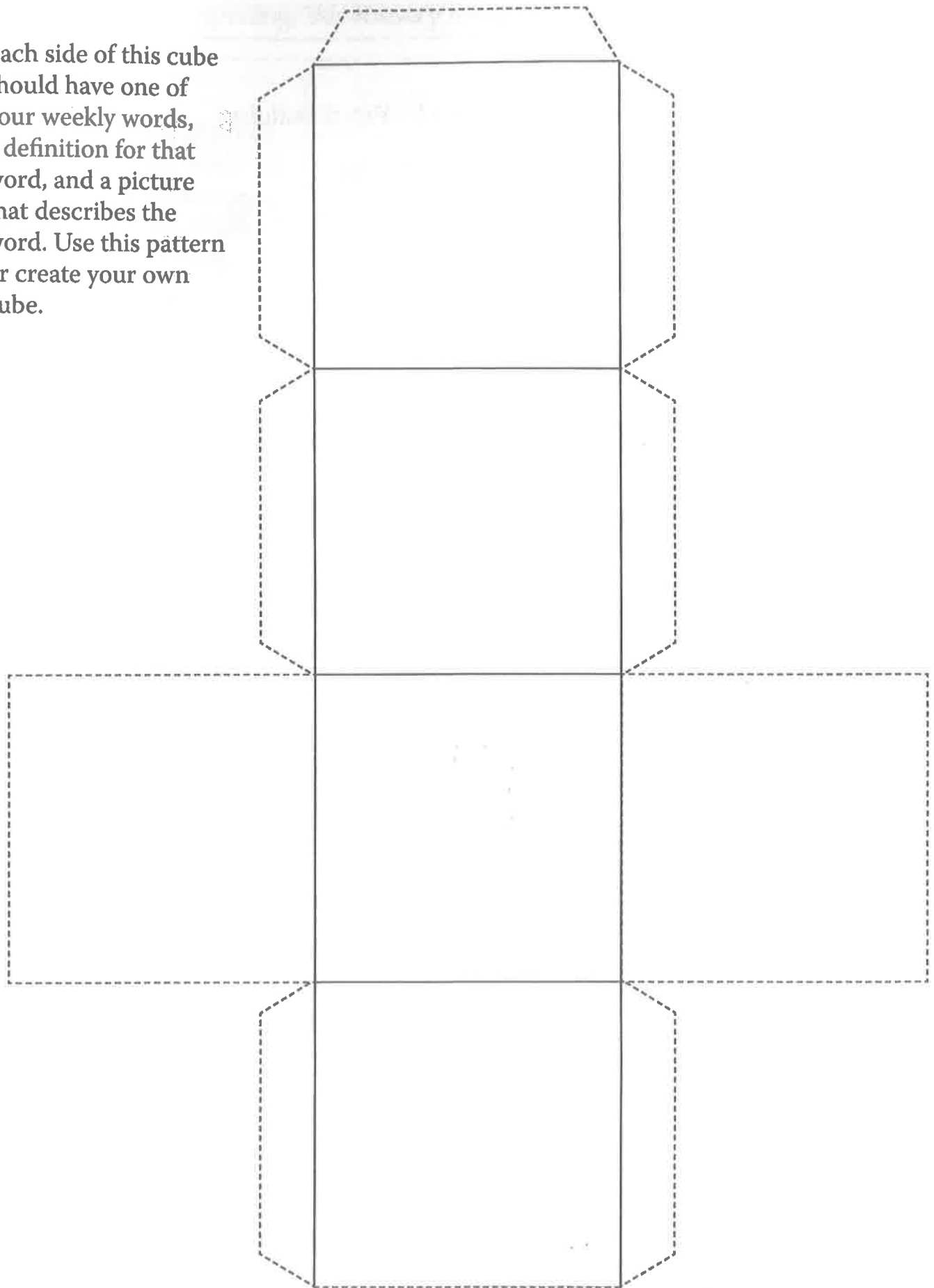
## Spelling/Vocabulary I

<input type="checkbox"/> <b>Compose a Letter</b> Write a letter to your parents or one of your classmates. Use at least half of your weekly words in your letter and make sure they are used correctly. 	<input type="checkbox"/> <b>Make an Acrostic</b> Make an acrostic for two of your weekly words. The words you choose for each letter should be related to the word written downward.	<input type="checkbox"/> <b>Design Gestures</b> Choose four of your weekly words that you have trouble remembering. Develop some hand motions to help you remember them and share them with your classmates.
<input type="checkbox"/> <b>Create a Cube</b> Complete a spelling cube for six of your weekly words.  See next page  	<input type="checkbox"/> <b>Free Choice</b> (Fill out your proposal form before beginning the free choice!)  	<input type="checkbox"/> <b>Complete Concentration</b> Create a set of concentration cards for your weekly words. On one set of cards, use the word. The other set can have pictures or a written definition for each.
<input type="checkbox"/> <b>Create a Crossword Puzzle</b> Using all of your weekly words, create a crossword puzzle. You can be creative on the clues that you use. Do not always use the definition for the clue!	<input type="checkbox"/> <b>Make Your Own Dictionary</b> Make a rhyming dictionary for your weekly words. Record each word with at least four words that rhyme with that word.  	<input type="checkbox"/> <b>Write a Story</b> Using all of your weekly words, write a story about the adventures of Word-O, a crazy superhero.  

Check the boxes you plan to complete. They should form a tic-tac-toe across or down. All products are due by: \_\_\_\_\_.

## Weekly Word Cube

Each side of this cube should have one of your weekly words, a definition for that word, and a picture that describes the word. Use this pattern or create your own cube.



Name \_\_\_\_\_

Read the clues, then write the words.

Start at the bottom and climb to the top.



French \_\_\_\_.  
**Take away two letters,  
then add one.**


Costs nothing.  
**Add one letter.**

An amount paid for a service.  
**Take away two letters.**


Less than something else.  
**Change one letter.**

More new than  
something else.  
**Rearrange the letters.**

To restore or make  
like new again.  
**Add an e, then  
rearrange the letters.**

 A small singing bird.  
**Take away two letters.**

A tool with jaws  
for tightening and  
loosening nuts.  
**Change one letter.**

 A long narrow ditch.  
**Change one letter.**

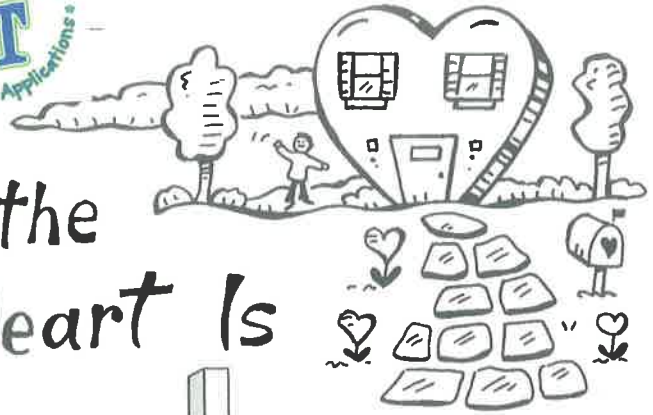
f r e n c h

Name \_\_\_\_\_



Read the clues, then write the words.

Start at the bottom and climb to the top.



# Where the Heart Is

Where you live.  
Add one letter.

9

Shovel-like tool for gardening.  
Add one vowel.

Referring to a man or boy.  
Take away one letter.

8

A female chicken.  
Change one letter.

Short for "Kenneth."  
Change one letter.

7

What opens a lock.  
Take away three letters.

An animal like a small ape.  
Add one letter.

6

5

Dollars are a form of this.  
Change one letter.

A sweet substance made by bees.  
Take away one letter, then add one.

4

3

2

1

phone



Name \_\_\_\_\_



Read the clues, then write the words.

Start at the bottom and climb to the top.



Short for *gasoline*.  
Take away one letter.

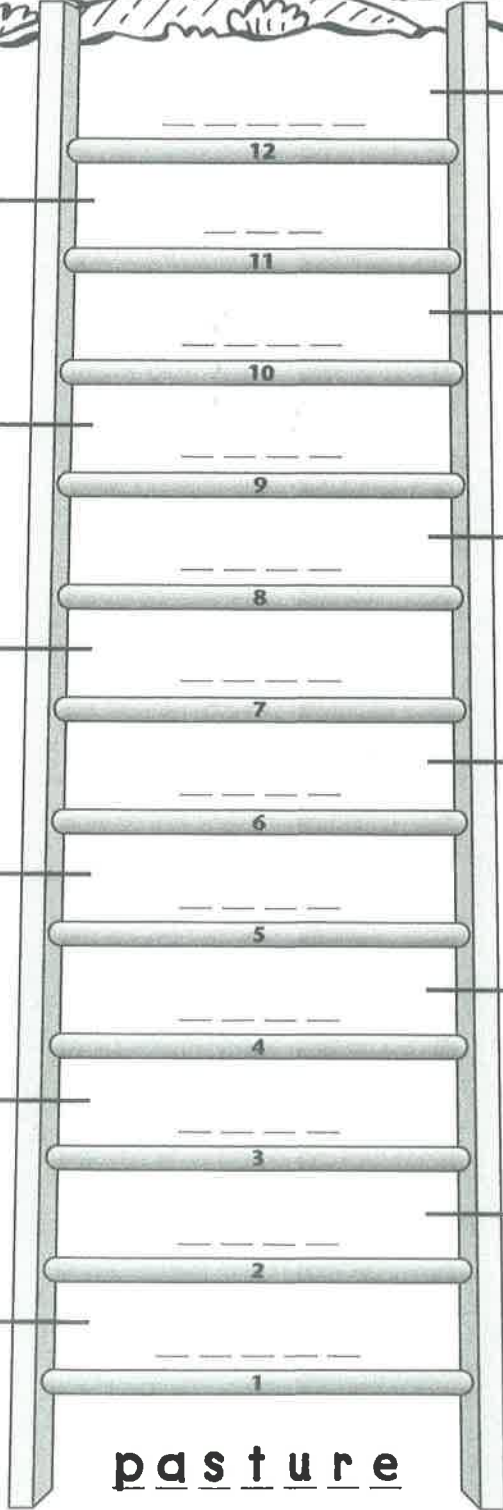
To change into a soft substance by crushing.  
Change one letter.

Greatest in number or amount.  
Change one letter.


The amount paid for something.  
Change one letter.

Another word for quick.  
Change one letter.

A kind of glue made of flour and water.  
Take away two letters.



What cows eat in the pasture.  
Add two consonants.

 A deep cut or wound on the body.  
Change one letter.

A tall pole on a sailing ship.  
Change one letter.

A pole you might hitch a horse to.  
Change one letter.

The actors in a theater production are called the \_\_\_\_.  
Change one letter.

The time before now.  
Take away one letter.

p a s t u r e

Name \_\_\_\_\_



Read the clues, then write the words.

Start at the bottom and climb to the top.




# Woody Wonder


This comes from trees.  
**Change one letter.**

A covering for the head.  
**Change one letter.**

The noise made by an owl.  
**Change one letter.**

A large ring, like a hula \_\_\_\_.  
**Change one letter.**

 A house for chickens.  
**Take away the first two letters, then add one.**

 A type of sailboat.  
**Change two vowels.**

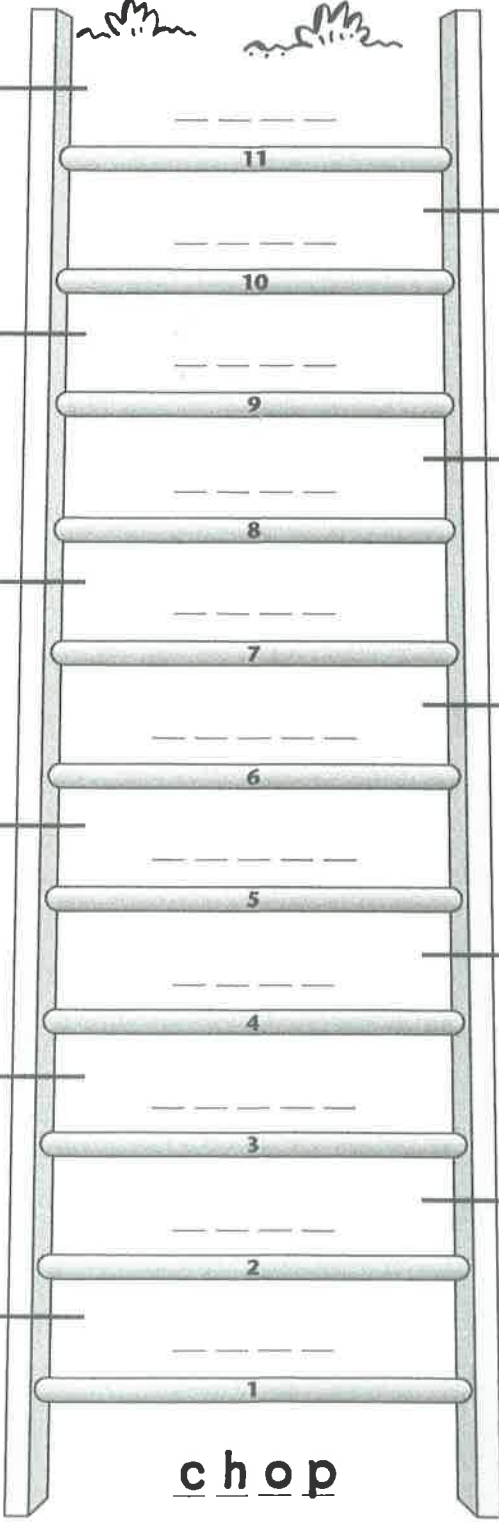
What you do when you're tired.  
**Add one letter.**

To flow or trickle slowly.  
**Take away one letter.**

An animal that gives wool.  
**Take away one vowel, then add two.**

A large boat.  
**Change one letter.**

A small piece of wood or stone.  
**Change one letter.**



chop

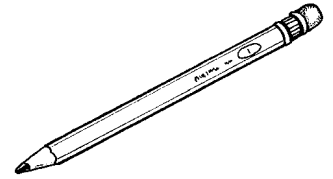


# Examining Similarities

Name \_\_\_\_\_

## Group and Regroup

Find the word in each box that doesn't belong. Cross it out, then write it on the last line in the box where it does belong.



1. fall  
inform  
swoop  
drop  
descend  
tumble  
\_\_\_\_\_

4. pollen  
stigma  
ovule  
temple  
pistil  
petal  
\_\_\_\_\_

2. osprey  
heron  
stamen  
emu  
petrel  
kingfisher  
\_\_\_\_\_

5. shrine  
pagoda  
mosque  
cathedral  
church  
macaw  
\_\_\_\_\_

3. teach  
tell  
notify  
impart  
instruct  
pond  
\_\_\_\_\_

6. bay  
lagoon  
topple  
inlet  
lake  
gulf  
\_\_\_\_\_



**THINK!**

Tell a partner how the words in each box go together.

# Same Class

Name \_\_\_\_\_

## Somehow Alike

Decide how the first two words go together. Choose the word that goes with the third word in the same way.

### Tip ✓

lily and dahlia :: fork and spoon

Say to yourself: The first two words are flowers so they are in the same group or class. The second word pair must name things in the same class too. The second pair of words names two utensils.



1. rat and shrew :: cobra and \_\_\_\_\_  
Ⓐ cat                      Ⓑ mouse                      Ⓒ boa constrictor
2. autumn and winter :: blue and \_\_\_\_\_  
Ⓐ brown                      Ⓑ cold                      Ⓒ three
3. cottage and bungalow :: gingham and \_\_\_\_\_  
Ⓐ plaid                      Ⓑ hut                      Ⓒ dog
4. banjo and guitar :: canoe and \_\_\_\_\_  
Ⓐ paddle                      Ⓑ river                      Ⓒ kayak
5. badminton and volleyball :: wrench and \_\_\_\_\_  
Ⓐ soccer                      Ⓑ hammer                      Ⓒ factory
6. perch and halibut :: record and \_\_\_\_\_  
Ⓐ gift                      Ⓑ trout                      Ⓒ CD
7. broccoli and turnip :: beret and \_\_\_\_\_  
Ⓐ spinach                      Ⓑ tam                      Ⓒ golf
8. necklace and ring :: parsley and \_\_\_\_\_  
Ⓐ dill                      Ⓑ eat                      Ⓒ fruit



**THINK!**

Explain your answers to a partner.

# Class and Example

Name \_\_\_\_\_

## Class Names

Things can be grouped or classed together because they are alike in some way. Write two examples from the box for each class below.

<b>W O R D</b>	oak	screwdriver	swimming	purple
	hill	brown	soccer	grape
	wrench	violinist	drummer	valley
	watermelon	poppy	spruce	iris
<b>B O X</b>				

1. Colors \_\_\_\_\_
2. Trees \_\_\_\_\_
3. Sports \_\_\_\_\_
4. Musicians \_\_\_\_\_
5. Flowers \_\_\_\_\_
6. Tools \_\_\_\_\_
7. Fruits \_\_\_\_\_
8. Landforms \_\_\_\_\_



**THINK!**

Think of another example for each class.



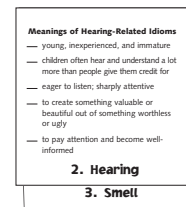
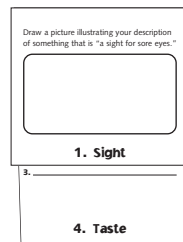
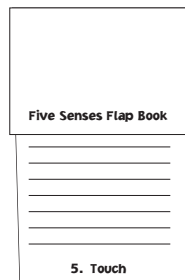
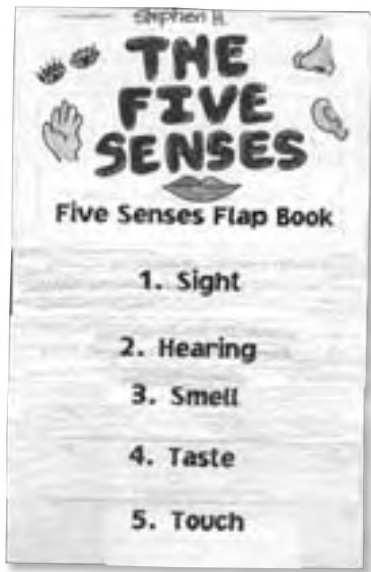
# Five Senses Flap Books

During a unit on the five senses have your students create flap books that focus on idioms related to sight, hearing, smell, taste, and touch. See page 15 for a list of these idioms.

## What to Do

- MATERIALS**
- double-sided copies of the five senses template (pages 13 and 14)
  - scissors
  - stapler
  - colored pencils

1. Copy the templates for the flap book back-to-back as they appear in the book. Give one template to each student.
2. Have students cut out the three panels along the thick solid separating lines.
3. Direct students to fold each panel along the dotted line as shown below.



4. Help students slip the panels together so they can see the titles for each panel. Fasten the top of each book with two staples.
5. Students should follow the directions on each of the panels to complete their flap books.

List three things that make you "down in the mouth."

- 1. \_\_\_\_\_
  - 2. \_\_\_\_\_
  - 3. \_\_\_\_\_
- List three things that make you "foam at the mouth."
- 1. \_\_\_\_\_
  - 2. \_\_\_\_\_
  - 3. \_\_\_\_\_

FOLD

### Meanings of Hearing-Related Idioms

- young, inexperienced, and immature
- children often hear and understand a lot more than people give them credit for
- eager to listen; sharply attentive
- to create something valuable or beautiful out of something worthless or ugly
- to pay attention and become well-informed

## 2. Hearing

### Idiom

Choose one of the idioms related to the sense of touch and circle it.

- ◆ **By the skin of your teeth**
- ◆ **Get under your skin**
- ◆ **More than one way to skin a cat**
- ◆ **No skin off your nose**
- ◆ **Touch and go**
- ◆ **Wouldn't touch something with a ten-foot pole**

### Meaning

In your own words, write the meaning of the idiom you selected.

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FOLD

Draw a picture illustrating your description of something that is "a sight for sore eyes."

## 1. Sight

## Five Senses Flap Book

FOLD



Describe something that you would consider "a sight for sore eyes."

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Creative Writing**

Write a short story that conveys the meaning of the idiom you selected.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Write the number of each of the idioms from the list below on the line in front of its proper meaning.

- 1. All ears
- 2. Keep your ear to the ground
- 3. Little pitchers have big ears
- 4. Make a silk purse out of a sow's ear
- 5. Wet behind the ears

List three things that "make your mouth water."

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

List three things that you like to "run off at the mouth" about.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Fill in the blanks with the following idioms. Two idioms will not be used.

- ◆ Smell a rat
- ◆ Come up smelling like a rose
- ◆ Cut off your nose to spite your face
- ◆ Pay through the nose
- ◆ Follow your nose
- ◆ Make it by a nose
- ◆ Look down your nose at someone

1. When a severe frost hits Florida, people have to \_\_\_\_\_ to buy orange juice.

2. You shouldn't \_\_\_\_\_ just because he or she looks different than you.

3. We're running a little late for the movie, but if we leave now we'll \_\_\_\_\_.

4. "Even though you all claim to be innocent, I \_\_\_\_\_, \_\_\_\_\_," said the detective.

5. When he asked me the way to the bakery, I said, "\_\_\_\_\_."

**5. Touch**

**4. Taste**

**3. Smell**

## Idioms Related to the Five Senses

### *Sight*

- ◆ A sight for sore eyes
- ◆ Apple of your eye
- ◆ Beauty is in the eye of the beholder
- ◆ Eye for an eye and a tooth for a tooth
- ◆ Eyes in the back of your head
- ◆ More than meets the eye
- ◆ Out of sight, out of mind
- ◆ Pull the wool over your eyes
- ◆ See eye to eye

### *Hearing*

- ◆ All ears
- ◆ Keep your ear to the ground
- ◆ Lend an ear
- ◆ Little pitchers have big ears
- ◆ Make a silk purse out of a sow's ear
- ◆ Wet behind the ears

### *Touch*

- ◆ By the skin of your teeth
- ◆ Feel your oats
- ◆ Get under your skin
- ◆ More than one way to skin a cat
- ◆ Touch and go
- ◆ Won't touch something with a ten-foot pole

### *Taste*

- ◆ Born with a silver spoon in your mouth
- ◆ Don't look a gift horse in the mouth
- ◆ Down in the mouth
- ◆ Foam at the mouth
- ◆ Hand-to-mouth existence
- ◆ Have your heart in your mouth
- ◆ Laugh out of the other side of your mouth
- ◆ Make your mouth water
- ◆ Out of the mouths of babes
- ◆ Put your money where your mouth is
- ◆ Run off at the mouth
- ◆ Straight from the horse's mouth
- ◆ Word of mouth
- ◆ Zipper your mouth

### *Smell*

- ◆ Come up smelling like a rose
- ◆ Cut off your nose to spite your face
- ◆ Follow your nose
- ◆ Keep your nose to the grindstone
- ◆ Look down your nose at someone
- ◆ Make it by a nose
- ◆ No skin off your nose
- ◆ Pay through the nose
- ◆ Smell a rat
- ◆ Smell something fishy
- ◆ Turn up your nose at someone

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# Logic With a Matrix

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Using a matrix to organize information is a great way to solve certain logic problems. A matrix helps students isolate the information that is helpful in solving the problem and eliminate the information that is no longer needed. Logic problems that have three variables have a very different looking matrix. Without this visual representation, information is difficult to remember and consequently difficult for students to use.

**The following is a teacher/students exchange from a fifth-grade classroom where students are solving the first problem in this section of the book.**

**Teacher:** Today we are solving a different kind of logic problem and will use something called a matrix to help us solve it.

Show students the first problem and the matrix and ask them to tell you what they see.

**Student:** The matrix is like a square with different parts.

**Student:** There are names across the top of the matrix and different kinds of drinks along the side.

**Student:** The squares in the middle are empty.

**Teacher:** Will someone read the logic problem and then I'll read one clue at a time and we can use the matrix to solve it.

Have a student read the problem out loud and then read the first clue.

**Student:** What does it mean that Jamie and Sandy are good friends? What does that have to do with which drink they like best?

**Teacher:** Does anyone think they know how this clue helps us solve the problem?

**Student:** I think that it means that Jamie and Sandy can't be the people who like skim milk the best because they are friends with that person. So Jessie has to be the person who likes skim milk the best. Jamie and Sandy are good friends with Jessie who likes skim milk the best.

**Teacher:** Does that make sense to all of you? What can we put in the matrix to help us remember that it's Jessie who likes skim milk the best? We also need to put something in the matrix to help us remember that Sandy and Jamie do not like skim milk the best.

**Student:** You could put a check where Jessie and skim milk come together and then put an  $\times$  in the same row under Sandy and Jamie.

**Student:** Or you could color in the place to show that Jessie is the skim-milk person and put an  $\times$  under Sandy and Jamie.

**Student:** You also need to show that Jessie can't like any of the other drinks the best. So you'll need to draw  $\times$ 's underneath Jessie's name.

**Teacher:** Why don't I color in the place where it shows that Jessie likes skim milk the best?

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Then it will be easy to see that Jessie is the skim-milk person. I'll put ×'s to show that no other person can have skim milk as their favorite drink, and to show that Jessie cannot like any of the other drinks as his favorite. The next clue says, **Sandy likes a beverage that has an odd number of letters.** Take ten seconds to think about this and then whisper what you think to your partner.

Once students have had this time, call on several students to share their ideas.

**Student:** Spring water and orange juice both have an odd number of letters. There's eleven letters in both of these drinks.

**Teacher:** So, what does that mean?

**Student:** It means that we still don't know which person likes which drink the best.

**Teacher:** OK. Let's read the next clue. **Jamie does not like fruit juices.** What does this clue tell us?

**Student:** This means that Jamie can't like orange juice. Orange juice is a fruit juice.

**Teacher:** So, what do I need to do on the matrix?

**Student:** You need to put an × where it shows Jamie and orange juice. Then you can color in where it shows Jamie and spring water. If he doesn't like orange juice the best, then he has to like spring water the best.

**Teacher:** OK. Now do we know which beverage Sandy likes the best?

**Student:** When you put an × under Jamie and orange juice that just leaves Sandy and orange juice. So, Sandy likes orange juice the best. Color in that square.

**Teacher:** Let's look at the matrix and see if it shows us who likes which beverage the best. You'll need to record your answers so it's easier to see them. Look over the matrix and reread the clues, checking to see that the answers make sense.

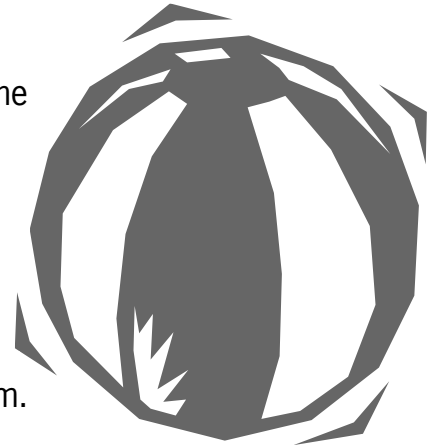
The 18 logic problems that follow include matrices for students to use to solve them.



# Logic With a Matrix

Use the matrices to solve the problems.

5. Bernice, Florence, Walter, and Sharna collected data about the places where different classes of students liked to swim. Bernice surveyed the first-graders, Florence surveyed the second-graders, Walter surveyed the third-graders, and Sharna surveyed her classmates in fourth grade. Each grade level liked a different place to swim. The places were: the ocean, a lake, a swimming pool, and a pond. Use the clues to figure out which grade preferred which place to swim.



- Neither the oldest nor the youngest students preferred swimming in the ocean
- The students who liked swimming in the lake best, ate lunch each day with the third and second graders.
- The students Sharna surveyed like the lake the best.
- Second graders did not prefer the ocean or a swimming pool.
- The youngest children liked the pool the best.

	Bernice Grade 1	Florence Grade 2	Walter Grade 3	Sharna Grade 4
Ocean				
Lake				
Swimming Pool				
Pond				

6. Peter, Janice, Andrew, and Samuel love movies. One loves science-fiction films, one loves dramas, one loves comedies, and one loves westerns. Use the clues to figure out which person loves each type of movie.

- Andrew and Samuel don't like dramas.
- The girl loves science fiction.
- Andrew doesn't like westerns.

	Peter	Janice	Andrew	Samuel
Science Fiction				
Drama				
Comedy				
Westerns				



# Logic With a Matrix

Use the matrices to solve the problems.

7. Marie, Brian, Sally, Freddie, and Patricia went on a bike trail together. Each one rode a different distance. The distances were: 5 kilometers, 7 kilometers, 10 kilometers, 11 kilometers, and 12 kilometers. Use the clues to figure out which person rode which distance.

- Brian and the boy who rode 11 kilometers are good friends.
- Sally rode exactly twice as many kilometers as Patricia.
- Marie rode 5 more kilometers than Brian.

	Marie	Brian	Sally	Freddie	Patricia
5 km					
7 km					
10 km					
11 km					
12 km					

8. Gordon, Candi, Nikki, and Stefanie each spent a different amount of time completing their homework the first week of school. One spent 5 hours and 20 minutes. One spent 4 hours and 40 minutes. One spent 3 hours and 45 minutes, and one spent 6 hours and 15 minutes. Use the clues to figure out how much time each person spent on their homework the first week of school.



- If you rounded the number of minutes that Gordon spent on his homework to the nearest hundred, it would be 300 minutes.
- Gordon spent more time than Nikki on homework.
- Stefanie spent 320 minutes on her homework.

	Gordon	Candi	Nikki	Stefanie
5 hours 20 min.				
4 hours 40 min.				
3 hours 45 min.				
6 hours 15 min.				

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# Logic Using a Venn Diagram

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Venn diagrams, developed by Englishman John Venn (1834–1923) are a powerful problem-solving tool allowing students to display attributes or information from two or three different sets. Teachers often use this visual representation when discussing the characters in a piece of literature or when making observations about things in science class. The Venn diagram logic problems that follow provide students with problems where they will have to add and/or subtract to figure out answers. In most cases the Venn diagram provides them with a means of seeing how the information from the problem will look.

**The following is a teacher/students exchange from a sixth-grade classroom. This will help you see how to use these problems with your own students.**

**Teacher:** Think of something you can say about this.

Show students the Venn diagram and ask them to describe what they see.

**Student:** There are two ovals that cross over each other.

**Student:** The ovals are empty.

**Teacher:** Has anyone ever used one of these before, or seen one of these?

**Student:** We use these to write characteristics of characters in a book. Sometimes two characters have characteristics that are the same and you write those in the middle part.

**Student:** The middle part means that the information is the same for both of the characters.

**Teacher:** Has anyone used these in any other classes?

**Student:** We used them in math class in third grade when we did data collection.

**Teacher:** So, this diagram has a special name. It's called a Venn diagram. It's actually named after a man named John Venn who used these to solve logic problems. We're going to use them to solve logic problems, too.

Show the first logic problem to the students and ask them to silently read the information that is given to them.

**Teacher:** Let's label the two ovals to help us organize the information from the problem. Think about what this (*Point to the first oval.*) might have as its label.

**Student:** You need to write the name of one of the favorite flavors of ice cream on top of each of the ovals.

**Teacher:** So, this loop will represent the students who like fudge swirl as their favorite flavor of ice cream and this oval will represent the students who like chocolate chip as their favorite flavor.

Add the labels.

**Student:** It says that 5 children only liked chocolate chip.

**Teacher:** Where should we write the number 5 to show that this amount of people only liked chocolate chip?

**Student:** You need to put it inside the loop that says *chocolate chip* in the part that doesn't overlap with the *fudge swirl* loop.

**Teacher:** How did you know that this would be the best place to put the 5?

**Student:** The overlapping part would be for people who couldn't make up their mind, and they said that they liked both chocolate chip and fudge swirl the same.

**Teacher:** OK. Would someone read the next clue?

**Student:** 8 children only liked fudge ripple.

**Teacher:** So, where should we write the number 8?

**Student:** The 8 needs to be inside the other loop in the part that doesn't overlap.

**Student:** 8 people liked only one kind of ice cream best.

**Teacher:** Would someone read the next statement?

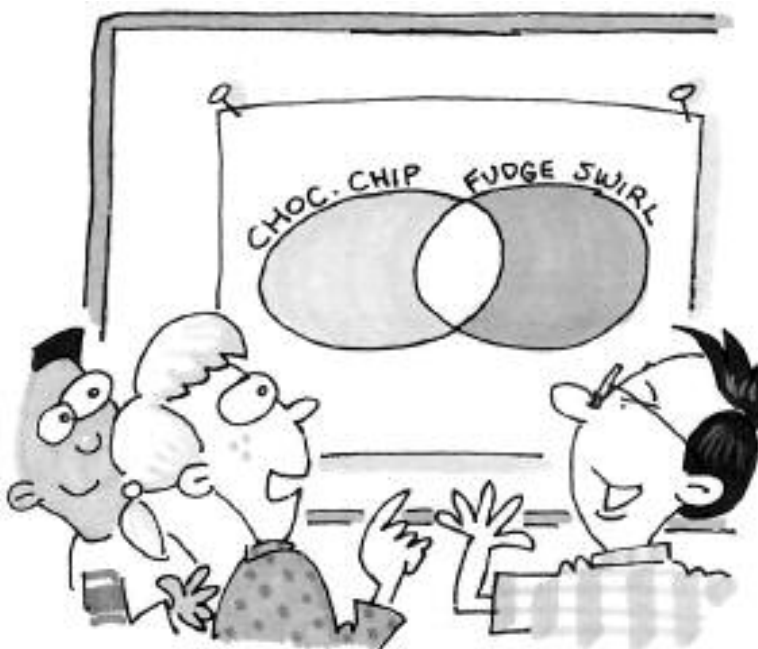
**Student:** Some children liked them both the same.

**Teacher:** What do we know from this clue?

**Student:** We know that there needs to be a number in the middle, but we don't know what this number is yet.

**Teacher:** Let's look at the last clue and see if it helps us figure out how many students will need to go in the center. Would someone read the last clue?

**Student:** 22 children were surveyed.



**Teacher:** Talk with your partner and take a minute to figure out how many people will go in the intersection of the two loops.

Give children a minute to do this. After someone has given an answer be sure to ask them how they figured out the answer they shared.

**Student:** The number 9 has to go in the center.

**Teacher:** Did anyone get a different answer?

**Teacher:** How do you know that 9 is the correct amount?

**Student:** If you add the 5 and the 8 that equals 13. But the last clue says that a total of 22 students were surveyed. So, I subtracted 13 from 22 and that equals 9. So, 9 students liked both chocolate chip and fudge swirl the same.

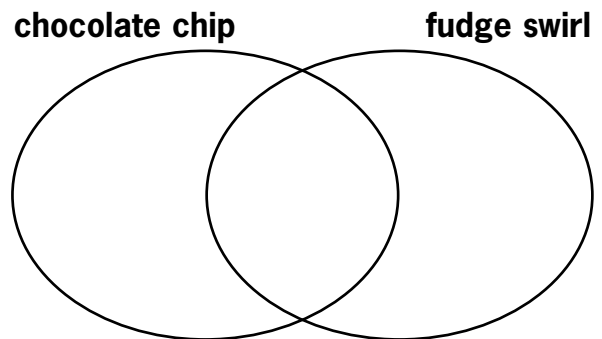
The following Venn diagram problems can be used as a "warm-up" before beginning mathematics class or they can be used as independent work or paired work for students.

# Logic Using a Venn Diagram

Use the Venn diagrams to display the results in each problem.

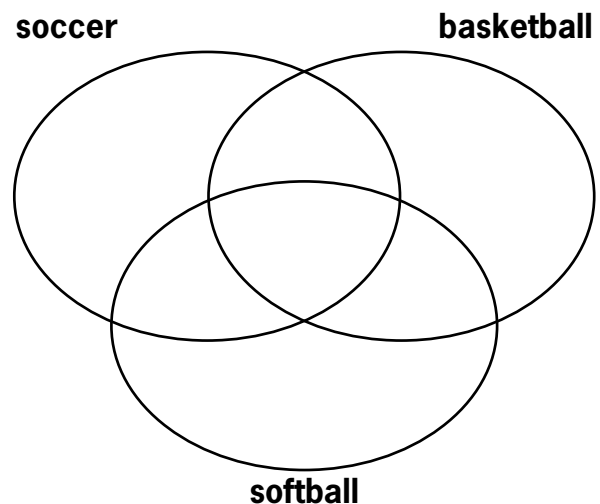
- 1.** Sara surveyed a group of fourth-graders to find out their favorite flavor of ice cream. They were given the choice of fudge swirl or chocolate chip. Here are the results.

- 5 children only liked chocolate chip.
- 8 children only liked fudge ripple.
- Some children liked them both the same.
- 22 children were surveyed.



- 2.** The entire fifth grade signed up for after-school sports. They signed up for soccer in the fall, basketball in the winter, and softball in the spring. Use the Venn diagram to display the data that was collected.

- 50 signed up for soccer, 60 students signed up for basketball, and 52 signed up for softball.
- A total of 112 students are in the fifth-grade.
- Some students signed up for more than one sport.
- 8 students signed up for all three sports.
- 11 students signed up for softball and basketball only.
- 7 students signed up for soccer and softball only.
- 16 students signed up for soccer and basketball only.

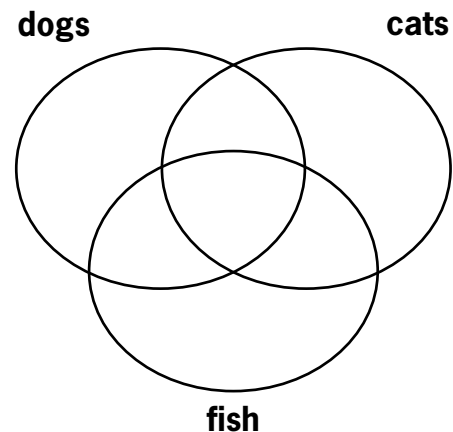


# Logic Using a Venn Diagram

Use the Venn diagrams to display these results and answer the questions.

3. Marvin stood outside of a pet shop every Saturday during the month of December to find out what types of pets were being bought as holiday gifts. He represented his data in a Venn diagram. Here is what he found.

- A total of 33 dogs were bought.
- A total of 28 cats were bought.
- A total of 28 fish were bought.
- 12 people bought one of each pet.
- 2 people bought a cat and a dog.
- 10 people came out of the store without a pet.
- 3 people bought only fish.
- 8 people bought only cats.

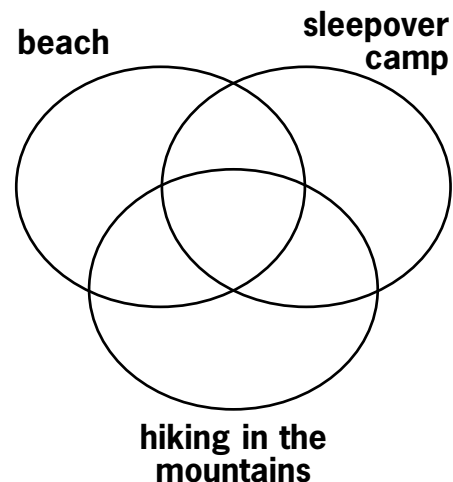


How many people bought a dog and a fish? \_\_\_\_\_

How many people bought a cat and a fish? \_\_\_\_\_

4. After their summer vacation, 88 students were asked to share where they went.

- 2 students spent four weeks at sleepover camp and then went to the beach for a week and then went hiking in the mountains for another week.
- A total of 34 students went to camp.
- 11 students went to both camp and the beach.
- 5 students went to the mountains and also to camp.
- A total of 12 students went to the mountains.
- 1 student vacationed at the beach and the mountains.
- 25 students went to the beach.



How many students stayed home? \_\_\_\_\_

How many students only went to the beach? \_\_\_\_\_

How many students only went to camp \_\_\_\_\_

How many students only went to the mountains? \_\_\_\_\_



Date \_\_\_\_\_

Name \_\_\_\_\_

**Addition and Subtraction**

## A Perfect Match

Each number in column 1 is separated by exactly 343 from a number in column 2. It is either 343 more than or 343 less than a column 2 number. Add or subtract to find out the pairs that are 343 apart. Then draw a line from one column to the other linking the pairs together.



Column 1	Column 2
656	818
251	594
854	456
799	914
686	1,226
475	999
976	343
466	511
1,257	123
883	633

Date \_\_\_\_\_

Name \_\_\_\_\_

**Inverse Operations****Good Things Come in Threes**

Three of the four numbers in each series below can be used to create four equations that are true. Rearrange the three numbers to find one true equation. Then, thanks to inverse operations, you will always be able to find three more equations that are true. We've done the first one for you.



Numbers	Equations
1. 28, 4, 12, 7	<u><math>28 \div 7 = 4</math> , <math>28 \div 4 = 7</math> , <math>4 \times 7 = 28</math> , and <math>7 \times 4 = 28</math></u>
2. 4, 6, 3, 7	_____
3. 38, 26, 2, 19	_____
4. 9, 36, 3, 4	_____
5. 17, 13, 5, 12	_____
6. 18, 32, 48, 50	_____
7. 56, 54, 9, 6	_____
8. 76, 6, 19, 4	_____
9. 20, 2, 25, 5	_____
10. 6, 42, 7, 49	_____

**YOUR TURN**

Put together a sequence of four numbers like the ones above and see if your classmates can figure out the three numbers that form a true equation.

Date \_\_\_\_\_

Name \_\_\_\_\_

**Number Patterns**

**Three's a Charm**



Within each series of numbers below are three numbers that are the same number apart from one another. To find the three numbers, you'll need to decide what was added to each number to get to the next number. Once you've identified the evenly spaced trio in each series, write the three numbers in the chart. Also, tell how many apart each trio member is from the next. We've done the first one for you.

Number series	Evenly spaced trio	How many apart from one another?
1. 3, 19, 22, 28, 41, 44	3, 22, 41	19
2. 26, 29, 36, 39, 40, 43		
3. 14, 18, 25, 30, 34, 50		
4. 11, 30, 46, 81, 87, 103		
5. 48, 63, 116, 142, 221, 298		
6. 23, 37, 49, 58, 65, 79		
7. 13, 19, 27, 64, 87, 115		
8. 1,356; 2,218; 2,323; 2,376; 2,428; 3,244		

**YOUR TURN**

Create a series of numbers of your own that has three numbers that are evenly spaced apart. See if your classmates can identify the trio of numbers and tell how many apart they are.

Date \_\_\_\_\_

Name \_\_\_\_\_

## Number Patterns

### Find the Bookend

Each number pattern on the list below is followed by a second list of numbers. One number from the second list fits at either the beginning or the end of the sequence, like a bookend! Figure out the number pattern. Then fill in the chart below by answering the questions. We've done one for you.



Number patterns	List	Which number belongs?	Beginning or end?	Description of pattern
1. 4, 6, 8, 10	3, 9, 12	12	end	numbers increase by 2
2. 5, 10, 15	0, 1, 5, 25			
3. 8, 13, 18, 23	3, 5, 15, 33			
4. 12, 14, 20, 22, 28, 30	4, 10, 32, 36			
5. 43, 39, 35, 31	46, 44, 27, 25			
6. 116, 109, 102	125, 123, 119, 94			
7. 2, 4, 3, 5, 4, 6, 5	8, 9, 7, 10			
8. 77, 76, 84, 83, 91, 90, 98, 97	67, 70, 98, 105			
9. 0, 3, 7, 12, 18, 25	31, 32, 33, 34			
10. 800, 400, 200, 100	75, 50, 25, 60			

### YOUR TURN

Create a number pattern of your own. See if your classmates, friends, or family can figure out the pattern and the correct missing number.

Date \_\_\_\_\_

Name \_\_\_\_\_

**Number Patterns*****Abacadabra!***

Paula just started classes at a school for magicians where the first thing they test is the power of observation—an important ability for all magicians-to-be! What kind of magician would you make? See how quickly you can figure out what rule three of the four sets of numbers in each group follow. Then cross out the set of numbers that does not follow that rule. Use the space provided to explain the rule. The faster you figure it out, the sooner you'll be awarded your magic wand!



- Group 1:** Set A: 536, 625, 563, 365  
Set B: 3,241; 1,423; 4,132; 3,441  
Set C: 4,596; 4,598; 8,945; 9,584  
Set D: 67,302; 70,326; 28,076; 27,360

**Rule:** \_\_\_\_\_

\_\_\_\_\_

- Group 2:** Set A: 21, 54, 89, 76  
Set B: 876, 954, 654, 321  
Set C: 2,310; 5,432; 8,765; 4,321  
Set D: 65,432; 98,765; 56,432; 87,654

**Rule:** \_\_\_\_\_

\_\_\_\_\_

- Group 3:** Set A: 214, 326, 498, 170  
Set B: 336, 438, 781, 264  
Set C: 848, 418, 274, 172  
Set D: 201, 204, 316, 458

**Rule:** \_\_\_\_\_

\_\_\_\_\_

**YOUR TURN**

Create your own “abracadabra” problem for a friend to solve.



Date \_\_\_\_\_

Name \_\_\_\_\_

## Using Tables and Charts

### On the Wall

Four cousins kept track of how much they grew for five years. Two cousins recorded their height in inches, and two cousins recorded it in feet. In order to compare, you'll have to do some math. The chart below tells you how each child grew over the years. Use it to answer the questions below.



Child	Height by year					
	2000	2001	2002	2003	2004	2005
Noah	4 ft 4 in	4 ft 6 in	4 ft 10 in	5 ft 3 in	5 ft 4 in	5 ft 5 in
Alison	51 in	54 in	56 in	56 in	59 in	62 in
Sandra	4 ft	4 ft 7 in	5 ft	5 ft 2 in	5 ft 3 in	5 ft 4 in
Nick	49 in	49 in	53 in	57 in	59 in	59 in

- What years does this chart cover? \_\_\_\_\_
- Who is tallest in each of these years?  
2001 \_\_\_\_\_ 2002 \_\_\_\_\_ 2004 \_\_\_\_\_
- Who is shortest in each of these years?  
2000 \_\_\_\_\_ 2003 \_\_\_\_\_ 2005 \_\_\_\_\_
- Who grew the most during the time span covered by the chart? \_\_\_\_\_
- How much did the person in the previous question grow during these years? \_\_\_\_\_
- Who grew the least during the time span covered by the chart? \_\_\_\_\_
- How much did the person in the previous question grow during these years? \_\_\_\_\_
- Who had the biggest growth spurt from one year to the next? Include the years and how much the person grew. \_\_\_\_\_
- Which two kids didn't grow at all from one year to the next? During what years? \_\_\_\_\_
- Predict who you think will end up being the tallest in the group based on the information from the chart. \_\_\_\_\_

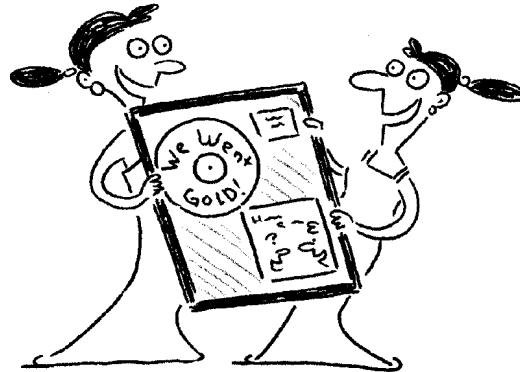
Date \_\_\_\_\_

Name \_\_\_\_\_

**Logic and Reasoning**

**One-Hit Wonder**

The Hamburger Sisters had one number-one hit in their rock-and-roll career, but they can't remember which year it happened! Eight possible years are listed in the box below. Use the clues to eliminate all but the correct year. (Hint: Not every clue eliminates a year.)



Possible years			
1983	1986	1989	1992
1984	1988	1990	1995

Clues	Year(s) eliminated
1. No hits were on the chart between 1991 and 1993.	
2. The band formed in 1984.	
3. The only year in which the band took a vacation was 1989.	
4. The band had no top-ten hits in its first three years.	
5. The band never had a hit on both the U.S. and British charts at the same time.	
6. Every song they released in 1987 and 1988 went only as high as number 3.	
7. None of the band's songs were released after 1994.	
8. The band broke up in 1995.	
9. The band's most popular single in 1990 was on the British chart.	

The Hamburger Sisters' number-one hit was in the year \_\_\_\_\_.

Date \_\_\_\_\_

Name \_\_\_\_\_

**You're Breaking Up**

If you break up the word *snapshot* and rearrange some letters, you can make two new words: *hops* and *ants*. All the words below can be broken into two smaller words. Use the clues to help you figure out which words and write them in the chart. Every letter in the bigger word is used only once to make the two smaller words.



BIGGER WORD	CLUE 1	SMALLER WORD 1	CLUE 2	SMALLER WORD 2
1. doorbell	you wear it in the morning to keep warm		child's toy that often can be dressed up	
2. airplane	bucket		not far	
3. something	phantom		not yours	
4. password	stinging insect		thin metal bars	
5. roommate	not less		water surrounding a castle	
6. sweetheart	to use thread to make clothing		where you see a film or a play	
7. outburst	to travel in a foreign country		to bang your toe	
8. snowflake	slithering animal		to move like water	

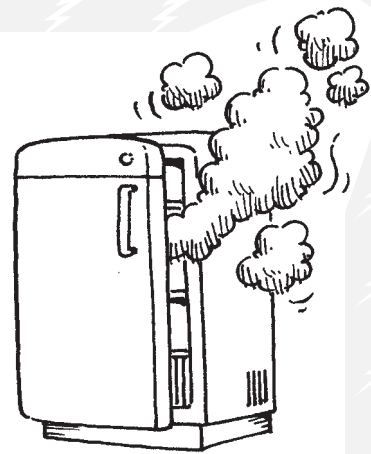
**YOUR TURN**

Find a word of seven letters or more that you can break into two smaller words.

\_\_\_\_\_

**Inside Information**

Look at the items in column A of the chart below. Every one of them is commonly found *inside* one item in column B. Match the appropriate pairs and write your answers on the blanks below. There is only one correct letter match for each numbered item. We've done the first one for you.



COLUMN A	COLUMN B	CORRECT MATCH
1. butter	a. balloon	<u>1. e</u>
2. coin	b. pantry	_____
3. pupil	c. vault	_____
4. pig	d. shed	_____
5. helium	e. refrigerator	_____
6. cereal	f. sty	_____
7. assets	g. fountain	_____
8. rake	h. eye	_____
9. license	i. bottle	_____
10. arrow	j. mirror	_____
11. battery	k. flashlight	_____
12. mercury	l. quiver	_____
13. reflection	m. thermometer	_____
14. lint	n. wallet	_____
15. message	o. dryer	_____

**YOUR TURN**

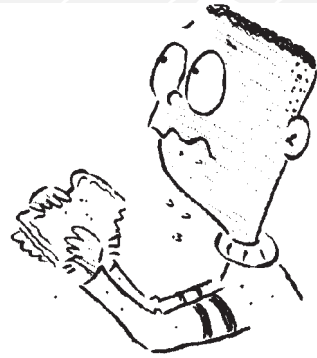
Think of five more items commonly found inside another item like in the chart above. Mix them up and see if your classmates can pair them together correctly.

Date \_\_\_\_\_

Name \_\_\_\_\_

**A Word Sandwich**

The words in boldface below can be sandwiched between two other words to create new compound words. Choose the correct boldface word for each example and write the compound words it makes on the blanks. Your choice must work as both the ending of the first word and the beginning of the second. We've done one for you.



**HINT:** Each word in the list is used only once.

- crow ever water fire flower**  
**hand light out over post top**

1. cook book mark  
cookbook, bookmark

7. what \_\_\_\_\_ green  
 \_\_\_\_\_

2. sun \_\_\_\_\_ pot  
 \_\_\_\_\_

8. work \_\_\_\_\_ side  
 \_\_\_\_\_

3. scare \_\_\_\_\_ bar  
 \_\_\_\_\_

9. wild \_\_\_\_\_ proof  
 \_\_\_\_\_

4. sleep \_\_\_\_\_ flow  
 \_\_\_\_\_

10. back \_\_\_\_\_ cuff  
 \_\_\_\_\_

5. tree \_\_\_\_\_ soil  
 \_\_\_\_\_

11. goal \_\_\_\_\_ card  
 \_\_\_\_\_

6. flash \_\_\_\_\_ house  
 \_\_\_\_\_

12. under \_\_\_\_\_ front  
 \_\_\_\_\_

**YOUR TURN**

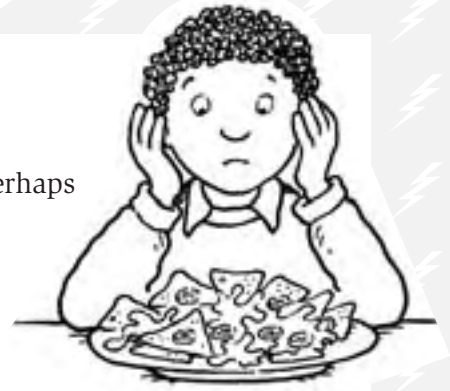
Add two more examples of words that can be made into compound words like the ones above. See whether your classmates can figure out the missing word in between each of your examples.

Date \_\_\_\_\_

Name \_\_\_\_\_

**I Ate Eight!**

A homophone is a word that has the same sound and perhaps even the same spelling as another word, but a different meaning. For example, *ate* and *eight* are homophones. In each row, write the homophone for each word in the blank next to it. Circle the one word in the group that *doesn't* have a homophone. Abbreviations, contractions, and proper nouns do not count as homophones!



- 1. peace/\_\_\_\_\_ site/\_\_\_\_\_ pail/\_\_\_\_\_ stay/\_\_\_\_\_
- 2. show/\_\_\_\_\_ board/\_\_\_\_\_ sent/\_\_\_\_\_ berry/\_\_\_\_\_
- 3. tide/\_\_\_\_\_ road/\_\_\_\_\_ roam/\_\_\_\_\_ seen/\_\_\_\_\_
- 4. wade/\_\_\_\_\_ wick/\_\_\_\_\_ missed/\_\_\_\_\_ steel/\_\_\_\_\_
- 5. raise/\_\_\_\_\_ principal/\_\_\_\_\_ rose/\_\_\_\_\_ eraser/\_\_\_\_\_
- 6. door/\_\_\_\_\_ fir/\_\_\_\_\_ titan/\_\_\_\_\_ prays/\_\_\_\_\_
- 7. aisle/\_\_\_\_\_ towed/\_\_\_\_\_ claws/\_\_\_\_\_ rodeo/\_\_\_\_\_
- 8. fern/\_\_\_\_\_ grate/\_\_\_\_\_ earn/\_\_\_\_\_ bail/\_\_\_\_\_
- 9. thrown/\_\_\_\_\_ rye/\_\_\_\_\_ flu/\_\_\_\_\_ pencil/\_\_\_\_\_
- 10. idle/\_\_\_\_\_ trick/\_\_\_\_\_ censor/\_\_\_\_\_ tour/\_\_\_\_\_

**YOUR TURN**

Pick three homophones from the exercise above. Write each word and its definition.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Date \_\_\_\_\_

Name \_\_\_\_\_

**One Word, Two Meanings**



Each sentence has two blanks, which can be filled with one word that has multiple meanings. Use clues in the sentences to figure out and test the correct missing word. Then, fill in the blanks. We've done one for you.

1. Sally left her umbrella on the floor of the closet, to the left of the vacuum cleaner.
2. I dropped my buttered \_\_\_\_\_ under the table and heard it \_\_\_\_\_ across the floor.
3. After Kurt broke his leg, the entire \_\_\_\_\_ of the play signed his \_\_\_\_\_.
4. Before we watch the \_\_\_\_\_, I will \_\_\_\_\_ you the theater where it is running.
5. After we chose a nice \_\_\_\_\_ for our picnic, I noticed a \_\_\_\_\_ on my shirt.
6. The \_\_\_\_\_ in her backyard is over 100 years old, but it has aged very \_\_\_\_\_.
7. It will \_\_\_\_\_ my spirits if I get a \_\_\_\_\_ at work.
8. I am a \_\_\_\_\_ of opening the window to get fresh air, but I'll also use a \_\_\_\_\_ if it's too hot.
9. The forest ranger could not \_\_\_\_\_ to see the \_\_\_\_\_ caught in a trap.
10. She will \_\_\_\_\_ in a movie about an astronomer who discovers a new nearby \_\_\_\_\_.
11. For Mary, it was a total \_\_\_\_\_ to catch a \_\_\_\_\_ during the camping trip since they don't normally swim where she was fishing.
12. I \_\_\_\_\_ the gauze tightly around the \_\_\_\_\_ so it wouldn't bleed or get infected.



Date \_\_\_\_\_

Name \_\_\_\_\_

**Syllable Wizardry**

How good are you at building words and figuring out how many syllables they have? Answer these tricky and fun questions about words to find out. Some questions may have more than one answer. Write your answers in the blanks.

**TIPS**

- No answers are proper nouns.
- No answers are foreign words.
- Do not rearrange or subtract any letters from the given word to form the new word.

1. What letter can you add to “eve” to make it a common *two*-syllable word?

Letter \_\_\_\_\_ New word \_\_\_\_\_

2. What letter can you add to “sleep” to make it a common *two*-syllable word?

Letter \_\_\_\_\_ New word \_\_\_\_\_

3. What letter can you add to “rise” to make it a common *two*-syllable word?

Letter \_\_\_\_\_ New word \_\_\_\_\_

4. What letter can you add to “rode” to make it a common *two*-syllable word?

Letter \_\_\_\_\_ New word \_\_\_\_\_

5. What letter can you add to “rode” to make it a common *three*-syllable word?

Letter \_\_\_\_\_ New word \_\_\_\_\_

6. What letter can you add to “man” to make it a common *two*-syllable word?

Letter \_\_\_\_\_ New word \_\_\_\_\_

7. What letter can you add to “are” to make it a common *three*-syllable word?

Letter \_\_\_\_\_ New word \_\_\_\_\_

8. What letter can you add to “pen” to make it a common *two*-syllable word?

Letter \_\_\_\_\_ New word \_\_\_\_\_

9. What letter can you add to “came” to make it a common *two*-syllable word?

Letter \_\_\_\_\_ New word \_\_\_\_\_

10. What letter can you add to “came” to make it a common *three*-syllable word?

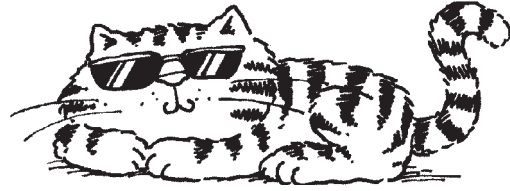
Letter \_\_\_\_\_ New word \_\_\_\_\_

Date \_\_\_\_\_

Name \_\_\_\_\_

**Can the Cat Act?**

The word *cat* is a noun. But if you rearrange its letters it will become the verb *act*. Each sentence below is missing either a noun or a verb. You can figure out what the missing word is by rearranging the letters of another noun or verb in the sentence. Circle the noun or verb, then write the missing word on the blank line. We've done the first one for you.



**TIPS:**

- Do not count any helping verbs, such as be, can, or will.
- If a noun is missing, you will rearrange a verb. If a verb is missing, you will rearrange a noun.

1. At home, our pets know they must step around the baby or she will grab them.
2. The wolf watched the stream \_\_\_\_\_ down the mountainside.
3. Vanessa is so excited to go to the toy shop that she \_\_\_\_\_ like a rabbit from the car to the shop's door.
4. The \_\_\_\_\_ of trainers will face its most dangerous job yet when it must tame the lion.
5. When opening the mystery crate, try not to \_\_\_\_\_ too loudly.
6. The \_\_\_\_\_ is planning to resign after tonight's concert.
7. If sales are down, the boss puts his head on his desk and \_\_\_\_\_.
8. My sister cannot \_\_\_\_\_ a moist piece of chocolate cake.
9. The \_\_\_\_\_ put down his brush and said, "That doesn't pertain to me."
10. "You will spot the \_\_\_\_\_ amid the clutter on the top shelf," my mother said.

Date \_\_\_\_\_

Name \_\_\_\_\_

**Letter Lottery**

Each word below is followed by a choice of three letters. Only one of the three can form a new word (or words) when the letters of the original word are rearranged and the extra letter is added to them. Write the correct letter, then write the new word or words it forms. We've done the first one for you.

ORIGINAL WORD	LETTER CHOICES	CORRECT LETTER	NEW WORD
1. raid	e, o, w	<i>o</i>	<i>radio</i>
2. apes	f, k, m		
3. echo	d, i, r		
4. lamp	e, o, t		
5. grow	a, n, u		
6. half	a, g, s		
7. lips	l, y, z		
8. cool	a, i, r		
9. ride	o, u, v		
10. large	m, g, p		

**YOUR TURN**

Create three more exercises like these and try them with your classmates.

Date \_\_\_\_\_

Name \_\_\_\_\_

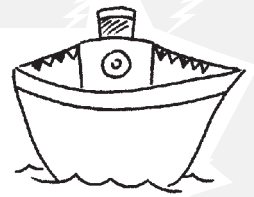
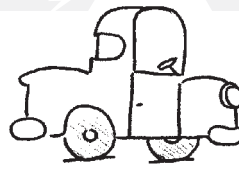
**FAST  
FINISHERS**

Language Arts

## Rhyme Is Reason

Every list below is missing a one-syllable word.

At first glance, there is no single correct answer. To complete each group of words, think of what each list of words is about. Then choose a word to fit that list that also rhymes with the other mystery words in the group. Write your answers on the lines and tell what each list of words is about in parentheses. We've done the first one for you.



### GROUP 1

Connecticut, New Mexico, Maine (U.S. states)

car, boat, plane (forms of transportation)

heart, lungs, brain (parts of the body)

### GROUP 2

bow, arrow, \_\_\_\_\_

lake, ocean, \_\_\_\_\_

shake, tremble, \_\_\_\_\_

### GROUP 3

green, brown, \_\_\_\_\_

refrigerator, stove, \_\_\_\_\_

see, blink, \_\_\_\_\_

### GROUP 4

sleet, hail, \_\_\_\_\_

hawk, pelican, \_\_\_\_\_

enemy, adversary, \_\_\_\_\_

### GROUP 5

seven, twelve, \_\_\_\_\_

window, roof, \_\_\_\_\_

library, restaurant, \_\_\_\_\_

### GROUP 6

grass, bush, \_\_\_\_\_

cricket, beetle, \_\_\_\_\_

shin, thigh, \_\_\_\_\_

**DON'T FORGET:**

The mystery words in each group must rhyme with one another!

Date \_\_\_\_\_

Name \_\_\_\_\_

## Youth Sleuth

Surprise! It's your birthday and there's a batch of unsigned birthday cards on your desk at school. You know your classmates well enough to narrow the suspects down to six. Read their personality profiles in the box below. Then sign the name of the student on the card you think he or she sent.

- Darren**—good at fixing things, likes music, rides a bicycle to school
- Julia**—good at sports, likes history, has lived in several different cities
- Mike**—good speller, plays piano, creates Web sites
- Randi**—good artist, oldest girl in the class, collects seashells
- Seth**—good at math, has a cat, eats lots of vegetables
- Dara**—good photographer, always cheerful, likes science



### Card 1.

*Again I get to share your special day.  
But for a change I will celebrate  
Not with cookies and ice cream cake,  
But peas and carrots on my plate  
Fondly,*

\_\_\_\_\_

### Card 4.

*I thought about buying you a gift,  
But I didn't know what you would like.  
So instead I've decided to let you  
Take a long ride on my new bike.  
Your friend,*

\_\_\_\_\_

### Card 2.

*Happy birthday to my good friend!  
I salute you with three cheers.  
Did you know yours is the same  
As a man named William Shakespeare's?  
Un abrazo,*

\_\_\_\_\_

### Card 5.

*Finally your birthday has arrived!  
Have you been thinking about it for a while?  
I'm sure you'll spend the day as I do  
Doing everything with a smile.  
Sincerely,*

\_\_\_\_\_

### Card 3.

*You may seem taller than Russell.  
You may look more adult than Patty  
You may be older than everyone else  
But you'll never be older than me!  
A big fan,*

\_\_\_\_\_

### Card 6.

*Last year my birthday wishes were so big  
They could've filled a whole CD-ROM.  
This year they've gotten even bigger  
So I'm posting them on  
[www.haveahappy birthday.com!](http://www.haveahappybirthday.com!)  
As always,*

\_\_\_\_\_

## **Answer Key for Enrichment Resources**

The answers are arranged in the same order as they appear in the packet. The highlighted pages are the answers for your grade's enrichment activities.



# Word Ladders Answer Key



## **Fried Snacks, page 51**

french, trench, wrench, wren, renew,  
newer, fewer, fee, free, fry

## **Candlelight, page 52**

candle, handle, hand, hard, shard, share,  
hare, fare, flare, flame

## **Car Trouble, page 53**

flat, inflate, late, slate, tales, tiles, tile,  
time, tide, tire

## **Play Date, page 54**

play, plan, plane, plates, staple, stable,  
able, amble, ramble, rumble, humble,  
hum, chum

## **Beautiful Day, page 55**

blue, clue, glue, glee, flee, flea, flew, fly, sly,  
sky

## **Ruling the Roost, page 56**

rooster, roost, roast, toast, coast, cast, cat,  
hat, hit, chick, chicken

## **New and Not-So-New, page 57**

new, few, dew, sew, sow, now, how, show,  
shown, own, owl, old

## **Midday Meal, page 58**

lunch, launch, laundry, dry, day, say, sap,  
sip, sipper, supper

## **Growing Up, page 59**

short, shore, shoe, show, slow, plow, blow,  
below, belong, long

## **Wedding Words, page 60**

bride, stride, ride, rid, rod, rode, road,  
roam, room, groom

## **Friendship, page 61**

friend, end, send, sent, set, bet, but, cut,  
cute, chute, chum

## **Rub-a-Dub-Dub, page 62**

scrub, rub, rib, crib, cob, rob, throb, broth,  
both, bath

## **Underwater, page 63**

dive, dime, chime, chimp, champ, ham,  
hum, hub, cub, Cuba, scuba

## **Hear This, page 64**

scream, cream, cram, cramp, ramp, ram,  
rat, rot, trot, trout, shout

## **Brainy Bird, page 65**

eagle, beagle, bagel, bugle, bungle, bundle,  
candle, handle, hand, Hank, hack, hawk

## **Itchy and Scratchy, page 66**

itch, inch, pinch, punch, lunch, hunch,  
hutch, hitch, pitch, patch, catch, scratch

## **Drinking Vessels, page 67**

glass, lass, last, least, yeast, year, bear, beep,  
jeep, jump, slump, pump, cup

## **Good Books, page 68**

story, store, ore, chore, core, bore, bone,  
boo, book

## **Land of the Free, page 69**

liberty, tribe, bride, pride, ride, rid, red,  
read, reed, freed, freedom

## **Corny!, page 70**

maize, maze, made, jade, jab, job, cob,  
con, coin, corn

## **School Days, page 71**

school, cool, coal, cola, cold, scold, sold,  
hold, hole, home

## **Jobs for Grownups, page 72**

teacher, teach, each, ache, acre, care, pare,  
parent





### **Auto Adventures, page 95**

driver, river, diver, divert, dive, Dave, date, dare, care, car

### **Where the Heart Is, page 96**

phone, honey, money, monkey, key, Ken, hen, he, hoe, home

### **Quick Wit, page 97**

bright, fright, right, rig, rug, rag, ram, mar, Mars, mart, smart

### **My Family, page 98**

mom, mob, sob, cob, cub, cab, lab, jab, dab, dad

### **Family Ties, page 99**

mother, other, bother, brother, broth, both, moth, math, bath, bather, father

### **Greener Pastures, page 100**

pasture, paste, past, fast, cast, cost, post, most, mast, mash, gash, gas, grass

### **Fur Facts, page 101**

bald, ball, fall, full, bull, bell, sell, shell, shall, hall, hail, hair

### **Woody Wonder, page 102**

chop, chip, ship, sheep, seep, sleep, sloop, coop, hoop, hoot, hood, wood

### **Mind Your Manners, page 103**

thank you, thank, tank, rank, prank, plank, plan, plane, lane, lean, lease, please

### **And the Winner Is . . . , page 104**

champ, chomp, chimp, chip, chin, shin, spin, spinner, dinner, winner

### **Dressing Up, page 105**

vest, invest, invent, vent, tent, ten, pen, pan, pants

### **Directions, page 106**

north, birth, bird, bard, board, boar, boast, boat, bout, shout, south

### **Get Well Soon, page 107**

sick, pick, Rick, trick, track, rack, tack, tall, wall, well





# Answers

**page 8** 1. Dogs 2. Weather 3. Drinks 4. Parts of the Face 5. Meats 6. Liquid Measurements 7. Landforms 8. Geometric Figures

*Examining Similarities*

**page 9** 1. inform (topple) 2. stamen (macaw) 3. pond (inform) 4. temple (stamen) 5. macaw (temple) 6. topple (pond)

**page 10** Answers may vary. Possible: 1. They both sail in the air. 2. They both keep time. 3. You can read them both for the news. 4. They are both musical instruments with keys. 5. They are both enclosed bodies of water. 6. Cars can drive on both. 7. You can sleep on them. 8. You wear them on your head.

**page 11** 1. imaginary/make-believe 2. solid/liquid 3. allow/permit 4. terrier/retriever 5. here/hear 6. snake/reptile 7. stroll/walk 8. cord/lamp

**page 12** 1. E, 2. I, 3. F, 4. H, 5. A, 6. B, 7. J, 8. D, 9. G, 10. C

*Same Class*

**page 13** 1. C, 2. A, 3. A, 4. C, 5. B, 6. C, 7. B, 8. A

**page 14** 1. C, 2. B, 3. A, 4. A, 5. C, 6. B, 7. B, 8. A

**page 15** 1. apple 2. hoe 3. goat 4. train 5. peninsula 6. mumps 7. lobster 8. period

**page 16** 1. C, 2. C, 3. B, 4. A, 5. C, 6. B, 7. C, 8. C

**page 17** 1. – 5. Students should note that in each analogy, the first item in the word pair is a part of the second item.

**page 18** 1. B, 2. A, 3. C, 4. A, 5. C, 6. A, 7. B, 8. B

**page 19** 1. A, 2. C, 3. B, 4. B, 5. B, 6. B, 7. A, 8. A

**page 20** 1. gas station 2. bird 3. skate 4. legislature 5. elevator 6. brood 7. castle 8. constellation

**page 21** 1. A, 2. C, 3. C, 4. A, 5. B, 6. B, 7. B, 8. B

**page 22** 1. B same class 2. C part/whole 3. C same class 4. B same class 5. A part/whole 6. B part/whole 7. C same class 8. C part/whole

**page 23** 1. numerous 2. rapidly 3. exotic 4. species 5. predator 6. emerge

**page 24** 1. A, 2. A, 3. C, 4. B, 5. A, 6. B, 7. C, 8. C

**page 25** 1. A, 2. B, 3. B, 4. B, 5. C, 6. A, 7. A, 8. B

**page 26** 1. state 2. consider 3. alter 4. tote 5. require 6. pleased 7. assist 8. kids

**page 27** 1. C, 2. C, 3. B, 4. A, 5. A, 6. B, 7. A, 8. C

**page 28** 1. B synonyms 2. A same class

3. B part/whole 4. C synonyms

5. C part/whole 6. B same class

7. A synonyms 8. C part/whole

**page 29** 1. dawn 2. late 3. hot 4. clean 5. down 6. good-bye

**page 30** 1. B, 2. C, 3. A, 4. A, 5. C, 6. B, 7. C, 8. B

**page 31** 1. B, 2. C, 3. A, 4. A, 5. A, 6. C, 7. B, 8. C

**page 32** 1. carelessness 2. bright 3. never 4. nonsense 5. complete 6. late 7. evening 8. include

**page 33** 1. C, 2. C, 3. A, 4. B, 5. A, 6. A, 7. B, 8. B

**page 34** 1. B part/whole 2. A synonyms 3. A antonyms 4. C same class 5. B synonyms 6. B antonyms 7. A part/whole 8. C antonyms

**page 35** 1. mane 2. grown 3. seen 4. two 5. whole 6. know 7. plain 8. flower 9. road 10. won 11. steal 12. hear 13. see 14. ant 15. through 16. dear

**page 36** 1. C, 2. A, 3. B, 4. C, 5. B, 6. A, 7. C, 8. B

**page 37** 1. C, 2. A, 3. A, 4. C, 5. B, 6. C, 7. A, 8. B

**page 38** 1. lessen 2. hoarse 3. wade 4. wring 5. would 6. peace 7. raise 8. pause

**page 39** 1. C, 2. A, 3. C, 4. A, 5. C, 6. C, 7. B, 8. A

**page 40** 1. B homophones 2. A antonyms 3. C same class 4. B homophones 5. C part/whole 6. A synonyms 7. B antonyms 8. C homophones

**page 41** 1. brown, purple 2. oak, spruce

*Class and Example*

3. swimming, soccer 4. violinist, drummer

5. poppy, iris 6. wrench, screwdriver

7. grape, watermelon 8. hill, valley

**page 42** 1. B, 2. A, 3. A, 4. C, 5. C, 6. C, 7. A, 8. B

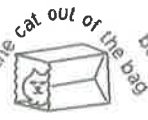
**page 43** 1. B, 2. A, 3. A, 4. C, 5. B, 6. C, 7. B, 8. C

**page 44** 1. family 2. storm 3. rock 4. container 5. insect 6. fuel 7. river 8. musician

**page 45** 1. A, 2. B, 3. C, 4. B, 5. A, 6. B, 7. C, 8. A

**page 46** 1. A class and example 2. B synonyms 3. C same class 4. C antonyms 5. B homophones 6. C synonyms 7. A part/whole 8. B antonyms

**page 47** 1. A same class 2. C part/whole 3. B homophones 4. A antonyms 5. B same class 6. C class and example 7. B synonyms 8. A part/whole



# Glossary

## Idioms ~ for the Five Senses Flap Books

The following is an alphabetical list of all the idioms mentioned in this book. Many of the meanings come from the *Scholastic Dictionary of Idioms* by Marvin Terban (Scholastic, 1996), which features over six hundred idioms, their meanings, and their origins.

### A

- Add fuel to the fire** to make a bad situation worse; to do or say something that causes more trouble, makes someone angrier
- Air your dirty laundry in public** to talk about your private disagreements or embarrassing matters in public, usually while quarreling
- Albatross around your neck** a very difficult burden that you can't get rid of or a reminder of something you did that was wrong
- All ears** eager to listen; sharply attentive; curious
- All thumbs** awkward and clumsy, especially with the hands
- Ants in your pants** extreme restlessness; overactivity
- Apple of your eye** a person or thing that is greatly loved, treasured, and adored
- As the crow flies** by the shortest and most direct route; measured in a straight, direct line between two places
- Asleep at the switch** not attending to one's job or failing to react quickly; not being alert
- At the end of your rope** at the limit of your ability, endurance, or patience to do something

### B

- Babe in the woods** a person who is inexperienced; a naive, trusting person
- Back to square one** return to the beginning because of a failure to accomplish the desired result
- Backseat driver** a bossy person who tells another person what to do; a person who gives unwanted advice and directions

- Bark is worse than your bite** the way a person sounds is much more frightening than the way she or he acts; the threat is often worse than the action taken
- Barking up the wrong tree** to direct your attention or efforts toward the wrong person or thing; to have the wrong idea about something
- Bats in your belfry** a person who has crazy ideas or acts irrationally
- Beat a dead horse** to pursue a useless goal; to continue fighting a battle which has been lost; to keep arguing a point which has already been decided
- Beauty is in the eye of the beholder** there is no standard for beauty, so what one person likes or sees in someone or something is not necessarily what others see; different people have different opinions
- Bee in your bonnet** a crazy idea; an obsession with an idea
- Beggars can't be choosers** needy people have to take whatever they can get and cannot be concerned about the quality if they cannot afford to buy it for themselves
- Behind the eight ball** in trouble or out of luck; in a difficult position or in a bad situation with little hope of winning
- Below par** unsatisfactory; below expectations
- Better half** either partner in marriage
- Between a rock and a hard place** being in a very tight spot and faced with a difficult decision
- Bird in the hand is worth two in the bush** what you already have is better than what you might or might not get in the future; a guarantee is worth more than a promise



**Birds of a feather flock together** people who have things in common, such as interests and ideas, usually hang out together; people who are alike often become friends

**Bite off more than you can chew** to take on a task that is more than you can accomplish; to be greedy, overconfident, or too ambitious by taking on more jobs or responsibilities than you can deal with at one time

**Bite the bullet** prepare for an unpleasant experience; brace yourself to endure with courage something painful but necessary

**Bite the dust** to die; to fall in defeat; to fail to succeed

**Bite the hand that feeds you** to turn against someone who helps you; to do harm to someone who does good things for you

**Black sheep of the family** the most unsuccessful, least admirable member of a family or similar group; a disgraced person

**Bleeding heart** an extremely softhearted person who feels compassion or pity towards all people, including those who may not deserve sympathy

**Blood is thicker than water** one can expect more kindness from a family member than from a stranger; a person will do more for a relative than for anyone else

**Blow your stack** see *Hit the roof*

**Blue blood** of high or noble birth; an aristocrat; from the upper class of society

**Bolt from the blue** something sudden, unexpected, and shocking

**Born with a silver spoon in your mouth** born to wealth, comfort, and privilege

**Bowl of cherries** a wonderful, pleasant situation or position; an easy, comfortable life

**Bring down the house** to get an audience to clap enthusiastically or laugh loudly

**Bug off** to leave someone alone; go away; stop annoying someone

**Bull in a china shop** a clumsy person who deals too roughly with a delicate situation; a rough person who is near breakable things; a tactless person who says or does something that angers people or upsets their plans

**Burn the candle at both ends** to overwork yourself mentally or physically and until you're exhausted

**Burn the midnight oil** to stay up very late at night studying or working

**Burn your bridges behind you** to make a decision you cannot change; to commit oneself to a course of action

**Burn yourself out** to exhaust yourself by overworking physically or mentally

**Bury your head in the sand** to ignore danger by pretending you don't see it; to hide from obvious signs of danger

**Busy as a beaver** working very hard; extremely industrious

**Busy as a bee** see *Busy as a beaver*

**Butter someone up** to flatter someone; to try to get a favor by praising someone

**Butterflies in the stomach** a fluttery feeling in the stomach, usually caused by nervousness

**Button your lip** to stop talking; be quiet

**Buy a pig in a poke** to buy something without seeing or examining it

**By the skin of your teeth** by an extremely narrow margin; with practically no room to spare; just barely

## C

**Call it a day** to stop work for the day; to bring a project to an end for the time being

**Call the shots** to make the decisions; to be in charge; to give orders

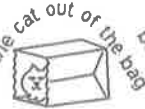
**Can't see the forest for the trees** to overlook the overall situation because of a focus on small details; to be so involved in details that you miss the whole picture

**Cast the first stone** to be the first to attack, blame, or criticize someone; to lead accusers against a wrongdoer

**Cat got your tongue?** Is there a reason that you're not speaking?

**Catch someone red-handed** to catch someone in the act of doing something wrong

**Chew the fat** to have a friendly, informal talk; to chat in a relaxed way



**Chew up the scenery** to overact; to exaggerate your emotions

**Chicken feed** a very small or insignificant amount of money

**Chickens come home to roost** words or actions come back to haunt a person; evil acts will return to plague the doer

**Chip off the old block** a child who resembles a parent in behavior, looks, or abilities

**Clean as a hound's tooth** completely free from dirt; perfectly neat (also *Clean as a whistle*)

**Climb the walls** to be frustrated or anxious during a challenging situation; to be unable to endure

**Cold turkey** the sudden stopping of any habit

**Come up smelling like a rose** to get out of a possibly embarrassing or disgraceful situation without hurting your reputation, and maybe even improving it

**Cook your goose** to put an end to; to ruin someone's plans

**Cool as a cucumber** very calm; not nervous or emotional

**Cost an arm and a leg** very expensive; high-priced, though possibly not worth the cost

**Crocodile tears** fake tears; false grief

**Cross that bridge when you come to it** don't predict problems until they actually happen; don't worry about future events now; don't deal with a difficulty until you have to

**Cut off your nose to spite your face** to injure yourself out of anger toward another; to make a situation worse for yourself when angry with someone

## D

**Dark-horse candidate** a contestant about whom little is known and who wins unexpectedly

**Dead as a dodo** totally dead or hopeless; without a chance of success (also *Dead as a doornail*)

**Dead duck** a person who is ruined; a person or project unlikely to continue or survive

**Dog days of summer** the hottest and most humid days of summer, usually much of July and August

**Dog-eat-dog world** a way of life marked by fierce competition in which people compete ruthlessly for survival or success

**Dog's life** a bleak, harsh, terrible existence without much happiness or freedom

**Don't count your chickens before they hatch** don't count on profits before you earn them or have them in hand

**Don't look a gift horse in the mouth** don't complain if a gift is not perfect; take what you've been given without criticism or emphasis on its worth

**Down in the mouth** sad and depressed (also *Down in the dumps*)

**Down the drain** lost forever; wasted

**Down the hatch** swallow a drink in one gulp

**Down-to-the-wire** running out of time; at the very last minute

**Dressed to the nines** wearing fashionable clothing; dressed to attract attention

**Drive you up the wall** to make someone angry or confused; to make somebody very annoyed or frustrated

**Drop you like a hot potato** to get rid of something or somebody as quickly as possible

## E

**Eager beaver** see *Busy as a beaver*

**Early bird catches the worm** a person who gets up early and starts a project ahead of others has the best chance of accomplishing his or her goal

**Eat crow** to be forced to do something very disagreeable; to acknowledge a mistake or defeat

**Eat your heart out** to feel extremely unhappy about a hopeless situation; to make yourself sick with grief and worry

**Eat your words** to have to take back what you said; to admit humbly that you were wrong

**Elbow grease** hard, energetic manual labor

**Eleventh hour** at the latest possible time, just before the absolute deadline

**Every cloud has a silver lining** there is something good in every bad situation



**Everything but the kitchen sink** practically everything there is; every possible object whether needed or not

**Eye for an eye and a tooth for a tooth** revenge or punishment exactly like the original crime or offense

**Eyes in the back of your head** ability to sense what is happening outside one's field of vision; ability to know what happens when one's back is turned

## F

**Face the music** to endure the consequences of one's actions; to take what you have coming to you

**Fat cat** a wealthy person; a rich benefactor

**Feel your oats** to be in high spirits, energetic; to act in a proud way

**Field day** to have unlimited opportunities; to have it all your own way; to go all out and experience success at something

**Fifth wheel** an unneeded, extra person

**Fish or cut bait** do one thing or another, but stop delaying; make a choice; act now or give someone else a turn

**Fish out of water** a person who is out of his or her usual place; someone who doesn't fit in or is helpless in a situation

**Fly by the seat of your pants** to do something by instinct and feel without any earlier experience or instruction

**Fly in the ointment** a small annoyance that spoils an otherwise pleasant situation

**Foam at the mouth** to be uncontrollably furious, like a mad dog

**Follow your nose** to go straight ahead in the same direction

**For the birds** worthless; useless; stupid

**Forty winks** a short nap

**Four corners of the Earth** from all over the planet; all parts of a place

**From soup to nuts** the whole thing from beginning to end

**Full of beans** lively, happy and energetic, high-spirited

**Full of hot air** being foolish and talking nonsense; pompous; vain

## G

**Get a kick out of something** to enjoy doing something; to get a thrill out of something

**Get the pink slip** to be fired

**Get under your skin** to bother or upset someone

**Get your goat** to annoy very badly; to make a person angry

**Get your walking papers** to be fired

**Give me five** to slap a person's hand as a hearty greeting or a sign of solid agreement

**Give your eyeteeth for something** to want something very badly; to be willing to give up something valuable to get something else

**Go against the grain** to oppose natural tendencies; to oppose a person's wishes or feelings; to cause anger

**Go along for the ride** to watch but not take part in an activity; to keep someone company

**Go bananas** to be or go crazy

**Go climb a tree** go away; leave; stop bothering me

**Go fly a kite** see *Go climb a tree*

**Go fry an egg** see *Go climb a tree*

**Go jump in a lake** see *Go climb a tree*

**Go over like a lead balloon** to fail miserably

**Go over with a fine-tooth comb** to search with great care or attention

**Go to the dogs** to decline in looks or health; to be ruined or destroyed; to ruin oneself

**Go yellow** to act cowardly

**Gone to pot** become ruined; to get worse and worse

**Goody-two-shoes** a person who thinks he or she is perfect and tries to be

**Green thumb** having a special talent for making flowers and green plants grow well

**Green with envy** extremely jealous





## H

- Hand-to-mouth existence** to spend your salary as fast as it's earned without saving any for the future
- Hard nut to crack** a problem that's very difficult to understand or solve; a difficult person
- Have other fish to fry** to have other things to do; to not bother with one thing because you have more important things to accomplish
- Have your cake and eat it too** to spend or use something up but still have it; to have two things when you must choose one
- Have your heart in your mouth** to be extremely frightened about something
- Head and shoulders above someone** far superior; much better than
- Head in the clouds** absent-minded; daydreaming; lost in thought
- Heart's in the right place** to be well-meaning and kindhearted; to have good intentions even though mistakes occur
- High horse** acting superior and arrogant as if you were better than other people
- Hit below the belt** to use unfair tactics or be unsportsmanlike
- Hit the books** study school assignments carefully; prepare for classes by reading and doing homework
- Hit the road** to begin a journey, to leave
- Hit the roof** to lose your temper suddenly; to become violently angry
- Hit the spot** to fully satisfy and refresh, especially with food or drink
- Hold your horses** slow down; wait a minute; be patient
- Hold your tongue** struggle not to say something you want to say
- Horse of a different color** a different matter altogether; something from a different nature from that being noticed
- Hot under the collar** very angry; upset

## I

- If at first you don't succeed, try, try again** don't give up; if you make a mistake you should keep working at it until you are successful
- If the shoe fits, wear it** If a remark applies to you, you should admit that it is true.
- In a pickle** see *Behind the eight ball*
- In hot water** in serious trouble or in an embarrassing situation with someone of authority
- In the doghouse** in disgrace or dislike; facing punishment
- In the driver's seat** in control; in the position of authority
- In the pink** in excellent health physically and emotionally
- It takes two to tango** two people are required to accomplish this deed

## J

- Jump down your throat** to talk or scream at someone in a sudden, angry way
- Jump on the bandwagon** to become part of the newest activity because many other people are

## K

- Keep something under your hat** to keep something secret
- Keep your ear to the ground** to pay attention and be well-informed
- Keep your fingers crossed** to wish for good luck and success for someone or something
- Keep your head above water** to earn enough to stay out of debt and avoid financial ruin; to do just enough to keep up with all of one's responsibilities
- Keep your nose to the grindstone** to force oneself to work hard all the time; to always keep busy
- Kill the goose that lays the golden eggs** to spoil or destroy something good out of stupidity, greed, or impatience
- Kill two birds with one stone** to do two things by one action; to get two results with just one effort
- Knee-high to a grasshopper** very young and, therefore, very short



## L

**Laugh out of the other side of your mouth** to be made to feel sorrow, annoyance, or disappointment after you felt happy; to cry at a change in luck after experiencing some happiness

**Lay an egg** to give an embarrassing performance

**Leave no stone unturned** to make all possible efforts to carry out a task or search for someone or something

**Lend an ear** to listen and pay attention to

**Let sleeping dogs lie** to not make trouble if you don't have to; to not make someone angry by stirring up trouble

**Let the cat out of the bag** to give away a secret

**Like two peas in a pod** identical; alike in looks and behavior

**Little pitchers have big ears** little children, listening to the conversations of older people, often hear and understand a lot more than people give them credit for

**Live high off the hog** to live in a rich style and own lots of expensive things

**Lock the barn door after the horse is out** to take careful precautions to do the right thing after it is too late

**Long in the tooth** old; aged

**Look down your nose at someone** to think of and treat people as if they were lower in quality or ability

**Look what the cat dragged in** a person who looks disheveled; the arrival of an unwanted person

## M

**Mad as a wet hen** very upset; extremely angry; ready to fight

**Make a mountain out of a molehill** to turn a small, unimportant issue into a big, important one; to exaggerate the importance of something

**Make a silk purse out of a sow's ear** to create something valuable or beautiful out of something practically worthless or ugly

**Make hay while the sun shines** to make the best of a limited opportunity

**Make it by a nose** to succeed at the very last moment

**Make waves** to cause trouble; to upset matters; to create a disturbance

**Make your mouth water** to look so attractive and desirable that it makes you want to have it very much; to want to eat or drink something that looks or smells delicious

**Monkey business** silliness or fooling around; dishonest or illegal activities; idiotic pranks

**More than meets the eye** there are hidden facts that can't be seen or understood right away

**More than one way to skin a cat** there are several different ways of reaching the same goal

## N

**Name is mud** the person is in trouble, possibly doomed and worthless

**Need something like a hole in the head** to have no need for something at all

**Need something like a third leg** see *Need something like a hole in the head*

**Needle in a haystack** something hard or impossible to find; anything hopeless (in a search)

**No skin off your nose** of totally no concern to you whatsoever; it doesn't matter to you one way or the other

**No spring chicken** not young anymore

## O

**Off the beaten track (path)** not well-known or used; an unfamiliar location; unusual; different

**Off the top of your head** stating something quickly and without thinking hard about it

**Off-the-wall** shocking; very unusual

**Off your rocker** crazy; silly, foolish; not thinking correctly

**Old wives' tale** a superstition; a belief or practice not based on fact

**On cloud nine** blissfully happy; joyous

**On pins and needles** waiting anxiously for something; extremely nervous; in great suspense

**On the ball** alert; effective; skillful; knowledgeable



- On top of the world** feeling extremely happy
- Once bitten, twice shy** when something bad happens to you, you will think twice before putting yourself in the same situation
- Once in a blue moon** almost never; very seldom; hardly ever
- One good turn deserves another** one good deed should be paid back with another
- One-horse town** a place with few comforts and activities; a dull rural town
- One-track mind** always thinking about only one subject
- Open a can of worms** to cause trouble; to set unpleasant events in motion
- Out in left field** unusual; crazy; totally wrong
- Out of sight, out of mind** if you don't see something for a long time, you'll eventually stop thinking about it
- Out of the clear blue sky** suddenly and without any warning; totally unexpectedly
- Out of the frying pan and into the fire** from a bad situation into one that is worse
- Out of the mouths of babes** children can unexpectedly say very intelligent things
- Out of the woods** safe from trouble or danger
- Out on a limb** taking a chance; in a dangerous position from which it is hard to withdraw or change
- Over a barrel** helpless; in someone's power; at a disadvantage
- Over the hill** past one's prime; unable to function as one used to; too old
- Over your head** a risky situation that will lead to certain failure; beyond your ability to understand something

## P

- Pay through the nose** to pay too much for something
- People who live in glass houses shouldn't throw stones** you should not criticize others if you are just as bad as they are
- Picture is worth a thousand words** to actually see or experience something is much better than to merely have it described to you

- Pie in the sky** something not possible; an unrealistic hope
- Play both ends against the middle** to pit two opponents against each other in such a way as to benefit yourself; to use each of two sides for your own purpose
- Play cat and mouse** to fool or tease someone by pretending to let her or him go free and then catching her or him again
- Play second fiddle** to be a follower; to be in an inferior position
- Play with fire** to take an unnecessary and dangerous risk; to court danger
- Poor as a church mouse** very poor; poverty-stricken
- Pot calling the kettle black** the person criticizing another person's faults is guilty of the same faults himself or herself
- Power behind the throne** the actual, but unrecognized, person in charge
- Pull a rabbit out of a hat** to produce something that is needed as if by magic; to unexpectedly find a solution to a problem
- Pull the wool over your eyes** to fool, deceive, or trick someone
- Pull your leg** to tease or fool someone; to jokingly try to lie to somebody
- Pull yourself together** to regain control over one's emotions and become calm after being very upset
- Put all your ducks in a row** to organize or finish things before moving on to something else
- Put the cart before the horse** to do things in the wrong order
- Put your money where your mouth is** to be willing to bet on or invest your money in something you support or believe in

## Q

- Quick on the draw** ready, alert, and quick to respond or react; mentally fast; quick to grasp information; touchy, sensitive
- Quiet as a mouse** silent or still; making very little noise; saying nothing; hushed, subdued





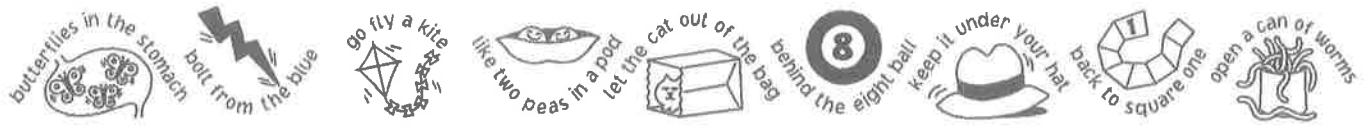
## R

- Raining cats and dogs** to rain very heavily; to pour
- Raise the roof** to be very angry, complain loudly, and make trouble
- Rat race** a fierce, unending, stressful competition in business or society
- Rats abandoning a sinking ship** disloyal people who desert a failing enterprise before it's too late
- Read between the lines** to discern the true, hidden meaning or fact in any document or action
- Red-carpet treatment** great respect and hospitality given to someone important; special treatment
- Red herring** something deliberately misleading to divert your attention from the main subject; something irrelevant that confuses an issue
- Red-letter day** a day remembered as especially happy and significant
- Red tape** excessive formality and time-consuming, rigid adherence to rules and regulations
- Right off the bat** immediately, spontaneously, and without delay
- Rock the boat** to make trouble and disrupt a stable situation; to risk spoiling a plan; to create a disturbance
- Rome was not built in a day** a difficult or important goal or task cannot be achieved quickly or all at once
- Rotten apple spoils the barrel** one bad person or thing may spoil an entire group
- Rub the wrong way** to annoy and irritate someone; to handle someone insensitively
- Run circles around someone** to easily do something far better than someone else
- Run off at the mouth** to talk too much; to talk nonstop

## S

- Save for a rainy day** to save for a time of need; to put something away for the future
- Saved by the bell** rescued at the last possible moment from an embarrassing or dangerous situation

- Scarce as hen's teeth** very, very rare or totally nonexistent
- See eye to eye** to agree fully; to have the same opinion
- See a pink elephant** to get so drunk you see things that don't exist
- Sell like hotcakes** to sell quickly, effortlessly, and in quantity
- Seventh heaven** being in an emotional state of extreme happiness
- Shake a leg** to hurry up; to go faster; to speed up
- Shoot the breeze** see *Chew the fat*
- Sick as a dog** very sick; suffering miserably without an ailment
- Sight for sore eyes** a most welcome, unexpected sight; a pleasant surprise
- Sink or swim** to fail or succeed by one's own efforts without anyone's help or interference
- Sitting duck** someone or something likely to be attacked and unable to put up a defense
- Six of one and a half dozen of the other** one and the same; nothing to choose between; equal
- Skate on thin ice** to take a big chance; to risk danger; to start out on a hazardous course of action
- Skeleton in your closet** a shameful and shocking secret that people try to keep hidden
- Smell a rat** to be suspicious; to feel that something is wrong
- Smell something fishy** see *Smell a rat*
- Snug as a bug in a rug** cozy and comfortable; safe and secure
- Spare the rod and spoil the child** to physically punish children when they misbehave so they'll learn to behave properly in the future
- Spill the beans** to give away a secret to someone who is not supposed to know it
- Spitting image** a perfect resemblance; an exact likeness
- Still waters run deep** somebody can be more knowledgeable or emotional than he or she first appears to be; a silent person may be intelligent
- Stir up a hornet's nest** to make many people furious; to cause trouble



**Straight from the horse's mouth** directly from the person or place that is the most reliable source or the best authority

**Straighten up and fly right** to stop behaving foolishly and start acting serious

**Strike a happy medium** to find a compromise to a problem; to find a sensible solution midway between two opposite desires

**Strike while the iron is hot** to act at the most favorable time or moment to get the best results; to take advantage of favorable conditions

**Swallow hook, line, and sinker** to believe a story completely without questioning it; to be very gullible

**Swan song** the final, farewell performance of an actor or singer; one's last words or actions

**Sweep you off your feet** to make a favorable impression; to affect with strong emotion or enthusiasm; to overcome someone with feelings of love or happiness so strong that he or she can't resist you

## T

**Take a backseat** to be in an inferior position; to take second place to another person who is in control

**Take someone under your wing** to help, guide, or protect someone

**Take the bull by the horns** to act bravely in a troublesome situation; to face up to a difficult challenge by taking decisive action

**That's the way the ball bounces** that's the way life is; that's fate; things sometimes turn out a certain way and you can't do anything about it

**That's the way the cookie crumbles** see *That's the way the ball bounces*

**Throw a monkey wrench into the works** to interfere with a smoothly running operation; to upset something in progress

**Throw the baby out with the bathwater** to lose or throw out something valuable or useful when getting rid of something that is useless

**Throw the book at someone** to punish severely for breaking rules or the law; to give the maximum penalty

**Tickled pink** to be very amused or pleased; to be delighted, entertained, or extremely happy

**Till the cows come home** for a long, long time

**Too many cooks spoil the broth** a project is set back rather than helped by too many organizers; the more people who work on one project, the worse it will turn out

**Top banana** the leading comedian in a variety show; a boss

**Touch and go** very risky, uncertain, or critical

**Touch something with a ten-foot pole** to avoid at all costs; to stay far away from a difficult problem

**True-blue** very loyal, dependable, and faithful

**Turn up your nose at someone** to regard something with haughtiness; to be snobby; to show that someone or something is not good enough for you

**Two-faced** false; dishonest

**Two's company, three's a crowd** when you would like to do something with just one other person, a third participant would be unwelcome

## U

**Up a creek without a paddle** in deep trouble and unable to do anything about it; in serious trouble

**Up against the wall** in big trouble; in a difficult or desperate situation

**Upset the applecart** to spoil or interfere with a plan; to obstruct progress; to mess everything up by surprise or accident

## W

**Walk on eggs** to be very cautious; to proceed warily

**Walking on air** to be exuberantly happy, excited, and joyful

**Watched pot never boils** when waiting anxiously or impatiently for something to happen, it seems to take much longer

**Water under the bridge** something that happened in the past; it's too late to worry about something that already happened



**Wear your heart on your sleeve** to show one's emotions and feelings openly

**Wet behind the ears** young, inexperienced, and immature

**What's good for the goose is good for the gander** a rule or method of treatment that applies to one person or group must also apply to others, especially your mate

**When the cat's away, the mice will play** when the person in charge is absent, people will usually do as they please and take advantage of the freedom

**Where there's smoke, there's fire** there is always a basis for a rumor, no matter how untrue it appears; suspicious things usually mean that something is wrong

**White elephant** any possession that is useless, unwanted, or costs a lot of money to keep

**Wild-goose chase** a useless or hopeless search, especially because something does not exist or can't be found

**Wolf in sheep's clothing** somebody who appears to be harmless but is really dangerous

**Word of mouth** by one person telling another; by speaking, rather than writing

## Y

**You can lead a horse to water but you can't make him drink** you can encourage, but not force, someone to do something

**You can't teach an old dog new tricks** people who find it difficult or impossible to change their ways or adjust to new ideas

## Z

**Zipper your mouth** see *Button your lip*

# Answers

### Page 51

1. Bite the bullet
2. Wild-goose chase
3. Everything but the kitchen sink
4. Up the creek without a paddle
5. Go over with a fine-tooth comb
6. Don't open a can of worms
7. On cloud nine
8. Butterflies in the stomach
9. If at first you don't succeed, try, try again
10. Let the cat out of the bag
11. Chip off the old block
12. Make hay while the sun shines

### Page 52

1. Hit the roof
2. In the driver's seat
3. Shoot the breeze
4. Don't count your chickens before they've hatched
5. Go fly a kite
6. Rock the boat
7. Bats in your belfry
8. Cost an arm and a leg
9. Take a backseat
10. Go against the grain
11. That's the way the ball bounces
12. Out of the clear blue sky

### Page 53

1. fry an egg
2. skin a cat
3. hatch
4. spoil the broth
5. run deep
6. eat it too
7. make him drink
8. fly right
9. come to it
10. swim
11. throw stones
12. spoil the child
13. come home
14. spite your face
15. be choosers

### Page 54

1. 6
2. 9
3. 1
4. 8
5. 40
6. 1
7. 2
8. ½
9. 2
10. 4
11. 5
12. 9
13. 1
14. 10
15. 2
16. 11
17. 5
18. 1,000
19. 2
20. 1

21. 0.25
22. 0.9
23. 0.178
24. 0.48
25. 0.067

### Arithmetic Logic

1.  $4 + 3 - 2 + 1 = 6$
2.  $(9 \times 2) \div 6 + 1 = 4$  or  $(9 + 2) - 6 - 1 = 4$
3.  $(7 + 9) \div 4 - 3 = 1$
4.  $[(8 \div 4) \times 3] - 4 = 2$
5.  $(1 \times 2) + 4 + 3 = 9$
6.  $[(3 + 8) - 7] \times 2 = 8$
7.  $12 \times 3 \div 9 + 8 = 12$
8.  $[(15 \div 3) - 4] \times 7 = 7$  or  $[(15 + 3) - 4] - 7 = 7$
9.  $1 + 4 + 6 - 8 = 3$
10.  $2 \times 2 \times 2 - 2 = 6$
11.  $(40 + 10) \times 2 - 30 = 70$
12.  $20 - 10 + 60 + 20 = 90$
13.  $90 \div 2 \div 5 + 1 = 10$
14.  $60 \div 4 + 5 - 5 = 15$
15.  $6 \times 5 \times 2 - 10 = 50$
16.  $12 + 8 + 20 - 5 = 35$
17.  $55 \times 2 - 10 + 20 = 120$
18.  $75 - 25 + 15 - 10 = 55$
19.  $80 \div 8 \times 2 \times 2 = 40$
20.  $10 \times 10 \div 20 + 15 = 20$
21.  $(136 - 20) \times 2 - 100 = 132$
22.  $51 \div 3 + 12 - 1 = 28$
23.  $164 \div 4 \times 2 + 27 = 109$
24.  $88 \times 2 \div 4 - 10 = 34$
25.  $100 \div 5 + 35 - 7 = 48$
26.  $(0.75 - 0.30) \times 2 + 0.10 = 1.00$
27.  $\frac{1}{2} - \frac{1}{6} + \frac{1}{5} = \frac{8}{15}$
28.  $2 \times \frac{9}{10} - 1\frac{1}{3} = \frac{7}{15}$
29.  $4 \times 0.25 + 0.10 - \frac{1}{2} = 0.6$
30.  $[(\frac{2}{3} + \frac{1}{2}) - \frac{1}{4}] \times 2 = 1\frac{5}{6}$

### Logic with a Matrix

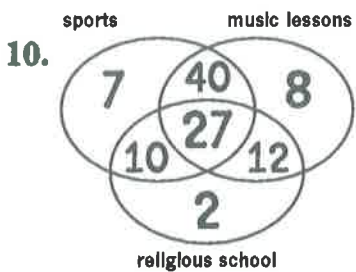
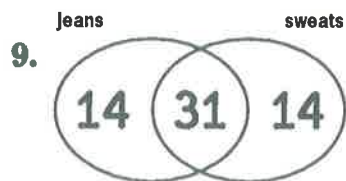
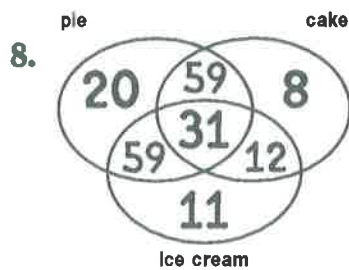
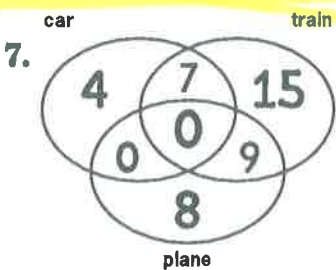
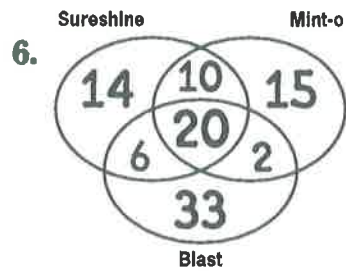
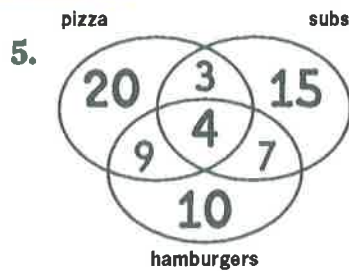
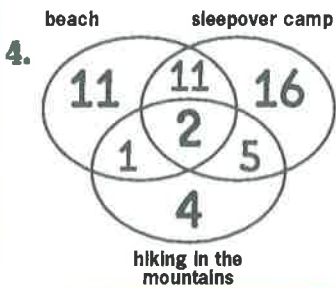
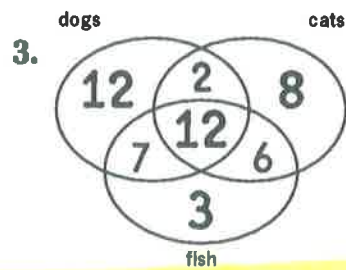
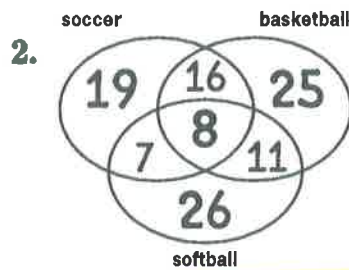
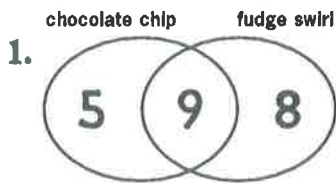
1. Jessie: skim milk; Sandy: orange juice; Jamie: spring water
2. MaryBeth: python; Elizabeth: parrot; Beth: chameleon
3. Melissa: problem about Warren; John: problem about Matilda; Chau: problem about Evelyn
4. Doug: Ms. Carr; Matt: Mr. London; Jonah: Dr. Saunders; Jenny: Ms. Parsons
5. Grade 1: swimming pool; Grade 2: pond; Grade 3: ocean; Grade 4: lake
6. Peter: drama; Janice: science fiction; Andrew: comedy; Samuel: westerns
7. Marie: 12 km; Brian: 7 km; Sally: 10 km; Freddy: 11 km; Patricia: 5 km
8. Gordon: 4 hours, 40 minutes; Nikki: 3 hours, 45 minutes; Candi: 6 hours, 15 minutes; Stefanie: 5 hours, 20 minutes
9. Chau: Mountain Climb; Melinda: Tilt-a-Whirl; Hannah: Swamp Coaster; Petra: Ferris Wheel; Benita: Wild Grizzly
10. Camille: accountant; Josie: attorney; Beth: salon; Mike: teacher
11. Serena: *Charlie and the Chocolate Factory*; Matthew: *Tales of a Fourth Grade Nothing*; Jacob: *A Wrinkle in Time*; Dexter: *Stuart Little*
12. Felicity: December 26; Monroe: January 2; Belinda: July 5; Wyatt: February 15; Brook: March 18
13. Brian:  $4782 + 999$ ; Henry:  $1644 + 777$ ; Ernest:  $827 + 699$ ; Christopher:  $508 + 948$ ; Peter:  $479 + 1356$ .
14. Julie: 6 times; Kim: 9 times; J. M.: 11 times; Robbie: 2 times; Matthew: 7 times; David: 5 times
15. Mikhael: 523-8199; Sondrah: 356-1178; Charleen: 631-2140; Yolanda: 817-3624
16. Kevin: Sport, can stand on only two legs with the other two in the air; Earl: Bozo,

can jump over a barrel; Marvin: Harry, can jump through a hoop

17. Wanda: blue, Georgetown University; Rita: green, Brown University; Barb: red, Washington University; Greta: white, Rhode Island State University

18. First week: Baltimore; second week: Atlanta; third week: Charlotte; fourth week: Washington; fifth week: Omaha; sixth week: Kansas City; seventh week: Seattle; eighth week: Denver

### Logic Using a Venn Diagram





# Answers

## PAGE 6: *Time for the Future*

- 1866
- 1969
- 1990
- 1947
- 1901
- 1899

## PAGE 7: *Many Pennies Lane*

- "700 Pennies Lane"
- "1,525 Pennies Lane"
- "555 Pennies Lane"
- "219 Pennies Lane"
- "4,000 Pennies Lane"
- "8,101 Pennies Lane"
- "199 Pennies Lane"
- "101 Pennies Lane"
- "4,550 Pennies Lane"
- "400 Pennies Lane"
- "100,000 Pennies Lane"

## PAGE 8: *Half Time*

- $15 + 7 + 12 + 34 = 68$
- $11 + 3 + 6 + 2 = 22$
- $21 + 38 + 67 + 8 = 134$
- $61 + 94 + 33 = 188$
- $24 + 30 + 100 + 180 + 26 = 360$
- $77 + 368 + 46 + 245 = 736$
- $610 + 401 + 102 + 107 = 1,220$
- $239 + 812 + 1,329 + 278 = 2,658$
- $1,035 + 1,507 + 5,421 + 2,879 = 10,842$

**Your Turn:** In each equation remove the largest number, which is always half of the original sum.

## PAGE 9: *Grab, Add 'N Win*

- Deena—\$80.00
- Noelle—\$100.50
- Gerry—\$101.88
- Raphael—\$100.25
- Francesca—\$101.31
- Joel—\$101.28
- Alexandra—\$89.74
- Samantha—\$122.74
- Sebastian—\$101.48
- Anthony—\$64.99

## PAGE 10: *Desperately Seeking 68*

- $797 \rightarrow 77 - 9 = 68$
- $9532 \rightarrow 93 - 25 = 68$
- $31013 \rightarrow 101 - 33 = 68$
- $66831 \rightarrow 36 - 68 = 68$
- $21058 \rightarrow 50 - 42 = 68$
- $012017 \rightarrow 170 - 102 = 68$
- $972353 \rightarrow 395 - 327 = 68$
- $123559 \rightarrow 591 - 523 = 68$
- $679679 \rightarrow 767 - 699 = 68$

## PAGE 11: *Numberless Subtraction*

- quintuplets – quartet = **1** (quintuplets are 5 siblings, quartet is a group of 4)
- Valentine's Day – Groundhog Day = **12** (Valentine's is February 14, Groundhog February 2; other reasonable answers,  $214 - 22 = 192$ .)
- octagon – pentagon = **3** (octagon has 8 sides, pentagon has 5)
- planets in our solar system – continents = **2** (9 planets, 7 continents)
- U.S. senators – U.S. states = **50** (100 Senators, 50 states)
- minutes in an hour – days in September = **30** (hour has 60 minutes, September has 30 days)
- Declaration of Independence – Columbus lands in the Americas = **284** (1776, 1492)
- millennium year – The year exactly one century before the millennium = **100** (2000 – 1900). (Some people consider the millennium year 2001, so 101 is also acceptable.)
- tetrahedron – quadrant = **0** (4 – 4; *tetra-* and *quad-* are both prefixes that mean four.)

## PAGE 12: *Big Spenders*

- Juan—\$6.02, 4
- Kevin—\$11.41, 1
- Mike—\$1.86, 7
- Dara—\$4.27, 6
- Randi—\$10.14, 3
- Seth—\$4.81, 5
- Darren—\$10.72, 2
- Raquel—\$7.78

## PAGE 13: *A Perfect Match*

Numbers in column 2 are rearranged so that they're next to their 343 partner.

Column 1	Column 2
656	999
251	594
854	511
799	456
686	343
475	818
976	633
466	123
1,257	914
883	1,226

## PAGE 14: *Eight Is Great*

**Explanation:** Stephanie is eight in 2000, so she was born in 1992. Stephanie's father wears a badge reading "29," which means he was born 29 years before she was.  $1992 - 29 = 1963$ , the year Stephanie's father was born.  $1963 + 8 = 1971$ , the year Stephanie's father turned eight

- father: 1963, 1971
- mother: 1964, 1972
- great-grandfather: 1913, 1921
- great-grandmother: 1915, 1945
- grandmother: 1937, 1923
- grandfather: 1938, 1946
- aunt: 1969, 1977
- uncle: 1965, 1973
- brother: 1987, 1995
- dog: 1991, 1999
- Answers will vary.

## PAGE 15: *Radio Riches*

Amount of money per day (some dollar amounts are rounded up):

- WSMK = \$500.00
- WMLC = \$166.67
- WAJD = \$357.14
- WMRP = \$71.43
- WWFD = \$400.00
- WPET = \$250.00
- WWHY = \$333.33
- WHIP = \$600
- WZZZ = \$1,071

## PAGE 16: *Tag Sale Tally*

Purchases	Cost per CD	Rank (1= earliest, 10 = most recent)
12 CDs for \$6.00	\$0.50	2
8 CDs for \$6.00	\$0.75	3
4 CDs for \$8.00	\$2.00	8
7 CDs for \$7.00	\$1.00	5
9 CDs for \$2.25	\$0.25	1
4 CDs for \$6.00	\$1.50	6
5 CDs for \$9.95	\$1.99	7
4 CDs for \$10.00	\$2.50	9
5 CDs for \$14.95	\$2.99	10
5 CDs for \$4.95	\$0.99	4

## PAGE 17: *Good Things Come in Threes*

- $4 + 3 = 7$ ,  $7 - 4 = 3$ ,  $7 - 3 = 4$ ,  $3 + 4 = 7$
- $38 \div 2 = 19$ ,  $38 \div 19 = 2$ ,  $19 \times 2 = 38$ ,  $2 \times 19 = 38$
- $36 \div 9 = 4$ ,  $36 \div 4 = 9$ ,  $4 \times 9 = 36$ ,  $9 \times 4 = 36$
- $5 + 12 = 17$ ,  $12 + 5 = 17$ ,  $17 - 5 = 12$ ,  $17 - 12 = 5$
- $18 + 32 = 50$ ,  $32 + 18 = 50$ ,  $50 - 32 = 18$ ,  $50 - 32 = 18$
- $54 \div 9 = 6$ ,  $54 \div 6 = 9$ ,  $9 \times 6 = 54$ ,  $6 \times 9 = 54$
- $76 \div 19 = 4$ ,  $76 \div 4 = 19$ ,  $19 \times 4 = 76$ ,  $4 \times 19 = 76$
- $20 + 5 = 25$ ,  $5 + 20 = 25$ ,  $25 - 5 = 20$ ,  $25 - 20 = 5$
- $42 \div 7 = 6$ ,  $42 \div 6 = 7$ ,  $7 \times 6 = 42$ ,  $6 \times 7 = 42$

# Answers

## PAGE 18: *Number Pole*

- 12, ÷
- 38, -
- 64, x
- 256, x
- 166, +
- 378, -
- 480, ÷
- 29, ÷

## PAGE 19: *Meanie Genie*

**Jake** and **Daniela** should be circled yes because all their answers were correct! Cecilia is no, because she got the third equation wrong.  $30 - 10 \div 2 = 25$  (not 10).

## PAGE 20: *Get the Scoop!*

- Zaura—7 scoops
- Ellis—18 scoops
- Clara—18 scoops
- Darby—15 scoops
- Chang—7 scoops
- Thelma—26 scoops
- Deon—14 scoops
- Gabriela—44 scoops

**Gabriela** is the new champion!

## PAGE 21: *The Number Shuffle*

- $390 + 876 = 1,266$
- $486 + 1,266 = 1,752$
- $1,752 - 654 = 1,098$
- $1,098 \times 3 = 3,294$
- $6,402 - 3,294 = 3,108$
- $59 + 150 = 209$
- $150 - 79 = 71$
- $639 + 71 = 710$
- $710 - 560 = 150$
- $150 \div 30 = 5$
- $85 - 5 = 80$

## PAGE 22: *A-Maze-ing!*

START						
18 + 0	54 + 3	32 +	36 +	48 ÷	98 +	
42 +	9 x 2	20 +	12 x	54 +	9 -	
19 +	4 + 14	19 +	15 -	4 x	22 ÷	
25 +	108 + 6	21 - 3	38 +	16 -	96 +	
15 -	0 x	18 - 0	36 + 2	36 - 18	100 +	
3 -	26 ÷	78 +	8 x	2 x 9	14 x	
7 x	28 +	24 +	56 +	199 - 181	17 -	
64 +	92 +	12 -	44 +	18 x 1	702 + 39	
10 x	36 x	30 +	11 x	146 +	3 x 6	
						FINISH

## PAGE 23: *Lights, Camera, Action!*

- 100 101 (102) 106
- 63 (36) 26 16
- 129 188 208 (192)
- (5) 6 18 4
- 80 (82) 83 85
- 199 145 (198) 186
- 80 (82) 83 85

- (294) 298 268 283
- 5,243 5,657 (5,776) 6,557
- 1,772 (1,773) 1,779 1,777
- 3,333 3,395 (3,325) 3,345
- 116 118 113 (114)

Your Turn 53

## PAGE 24: *Reaching the Top*

- $586 \div 8$  does not equal 86
- $1,644 \div 68$  does not equal 34
- $259 \div 3$  does not equal 65
- $64 - 48$  does not equal 15

José climbed the highest.

## PAGE 25: *Harvest Riddle*

- 64,8 (addition 72, subtraction 56, multiplication 512, division 8)
- 18,3 (addition 21, subtraction 15, multiplication 54, division 6)
- 35,7 (addition 42, subtraction 28, multiplication 245, division 5)
- 6,0 (addition 6, subtraction 6, multiplication 0, division 0)

60	9	258	130	1
12	56	15	512	182
19	54	79	6	14
25	5	28	72	76
168	8	44	245	954
201	42	0	21	26
55	87	4	34	51

A harvestman, otherwise known as a daddy longlegs, is an arachnid that has 8 legs.

## PAGE 26: *Three's a Charm*

Evenly spaced trio	How many apart from one another?
2. 29, 36, 43	7
3. 18, 34, 50	16
4. 11, 46, 81	35
5. 63, 142, 221	79
6. 37, 58, 79	21
7. 13, 64, 115	51
8. 2,218; 2,323; 2,428	105

## PAGE 27: *Find the Bookend*

Which number belongs?	Beginning or end?	Description of pattern
2. 0	beginning	increases by 5
3. 3	beginning	increases by 5
4. 36	end	increases by 2, then 6, then 2, then 6, and so on
5. 27	end	decreases by 4
6. 123	beginning	decreases by 7
7. 7	end	+2, -1
8. 105	end	decreases by 1, increases by 8
9. 33	beginning	number added increases by one each time
10. 50	end	numbers decrease by half

## PAGE 28: *Abracadabra!*

**Group 1:** All numbers have the exact same digits (in different orders), except these: 625 (Set A); 3,441 (Set B); 4,596 (Set C); 28,076 (Set D)

**Group 2:** All numbers are in reverse order, except these: 89 (Set A); 954 (Set B); 2,310 (Set C); 56,432 (Set D)

**Group 3:** The third digit is twice the first digit, except these: 170 (Set A); 781 (Set B); 172 (Set C); 201 (Set D)

## PAGE 29: *Pyramid Challenge*

- increases by 5 (missing numbers: 34, 54, 79)
- increases by 7, then 2, then repeats (missing numbers: 0, 34, 45, 70)
- decreases by 3 (missing numbers: 85, 70, 61, 55, 49)
- decreases by 1, increases by 6, then repeats (missing numbers: 36, 46, 56, 61, 65)

Your Turn Pattern is  $\div 4, \times 8, \div 4, \times 8$ , etc. (missing numbers: 96, 48, 768, 384)

## PAGE 30: *Think Ahead*

A	B
2. 88	89
3. 222	234
4. 444	456
5. 77	789
6. 1,111	1,234
7. 3,333	2,345
8. 6,666	6,789
9. 8,888	8,910
10. 11,111	12,345

## PAGE 31: *Hit the Road*

- (1)  $27 = 27 \div 9 = 3$
- (2)  $63 = 63 \div 9 = 7$
- 1, (3)  $95 = 135 \div 9 = 15$
- 1, (8)  $80 = 180 \div 9 = 20$
- 3, (2)  $06 = 306 \div 9 = 34$
- 5, (3)  $85 = 585 \div 9 = 65$
- 2, (1)  $151 = 2,151 \div 9 = 239$
- 2, 8, 5, 3, (1)  $2,853 \div 9 = 317$
- (9)  $4,122 = 4,122 \div 9 = 458$

**Your Turn** All the digits in a number evenly divisible by 9 (or a multiple of 9), add up to 9 (or a multiple of 9). E.g.,  $2,151 \div 9 = 239$  and  $2 + 1 + 5 + 1 = 9$

## PAGE 32: *Sum Good Facts*

- $4 + 8 = 12$
- $12 + 36 = 48$
- $27 + 32 = 59$
- $63 + 27 = 90$
- $45 + 72 = 117$ , in 1931
- $12 + 48 + 90 = 150$

# Answers

## PAGE 47: *Dino Bone Zone*

Percentage of skeleton that is complete

- 249/480 bones = 52% complete 6
- 10/18 bones = 55% complete 5
- 185/445 bones = 42% complete 7
- 56/455 bones = 12% complete 8
- 356/377 bones = 94% complete 1
- 297/351 = 85% complete 3
- 176/271 = 65% complete 4

## PAGE 48: *Milk Money*

- Jacob—14 days ( $\$10.95 \div .80$ )
- Louis—50 days ( $\$17.50 \div .35$ )
- Molly—50 days ( $\$20.00 \div .40$ )
- Ralph—106 days ( $\$26.47 \div .25$ )
- Rosita—120 days ( $\$59.99 \div .50$ )
- Tyrone—21 days ( $\$15.75 \div .75$ )
- Karen—217 days ( $\$65.00 \div .30$ )

## PAGE 49: *Money Matters*

- chocolate ( $\$10.80$ ) more than gum ( $\$10.29$ )
- apples ( $\$7.50$ ) more than bananas ( $\$7.00$ )
- pasta ( $\$13.08$ ) more than soup ( $\$8.90$ )
- lettuce ( $\$26.00$ ) more than cucumbers ( $\$20.70$ )
- batteries ( $\$59.85$ ) more than bulbs ( $\$48.07$ )
- running shoes ( $\$126.00$ ) is more than shirts ( $\$110.25$ )
- party dresses ( $\$195.00$ ) is more than ties ( $\$189.00$ )

## PAGE 50: *Find Your Way Out*

One kilometer is 1,000 meters, which is a little less than a mile (.62 of a mile, to be exact.) The total number of meters walked must be divided by 50, because the explorers will drop one item every 50 meters.

- Jesse—yes; 3 km = 3,000 meters  
 $3,000 \div 50 = 60$  items needed
- Warner—no; 2 km = 2,000 meters  
 $2,000 \div 50 = 40$  items needed
- Mara—yes; 2.5 km = 2,500 meters  
 $2,500 \div 50 = 50$  items needed
- Brianne—yes; 1,000 meters  
 $1,000 \div 50 = 20$  items needed
- Sylvia—no; 4 km = 4,000 meters  
 $4,000 \div 50 = 80$  items needed
- Tomas—no; 7 km = 7,000 meters  
 $7,000 \div 50 = 140$  items needed
- Alex—yes; 1.25 km = 1,250 meters  
 $1,250 \div 50 = 25$  items needed
- Jud—no; 2.75 = 2,750 meters  
 $2,750 \div 50 = 55$  items needed
- Nathan—no; 1.5 km = 1,500  $\div 50 = 30$  items needed
- Livia—no; 3.5 km = 3,500  $\div 50 = 70$  items needed

## PAGE 51: *Guess Your Best*

- 5678
- 96714
- 37162
- 79762
- 47757

## PAGE 52: *Mark and Darcy's Game*

- 15, 18
- 15, 17, 18 or 20, 15, 15
- 25 twice; or 20, 30; or 15, 35
- no, the highest he could get in 3 tosses with no bull's eye is 120
- yes, because no two numbers on this board could add up to 95
- 17, 27, 37 or 33, 33, 15

## PAGE 53: *On the Wall*

- five years from 2000–2005
- 2001: Sandra; 2002: Sandra; 2004: Noah
- 2000: Sandra; 2003: Alison; 2005: Nick
- Sandra
- ten inches
- Nick
- eight inches
- Sandra grew seven inches from 2000 to 2001.
- Nick and Alison. Nick didn't grow from 2000 to 2001 or from 2004 to 2005. Alison didn't grow from 2002 to 2003.
- Sandra because she grew the most, 16 inches, in five years.

## PAGE 54: *Speed Readers*

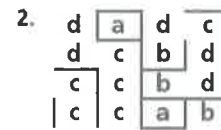
- 16 chapters over 7 days
- Scott, Thursday
- Grant, Tuesday
- Barry, 9, Thursday
- Monday, Grant
- Grant, Sunday
- Lois, 10
- Barry, Saturday
- Tuesday, 7
- Monday, 22

## PAGE 55: *Think Inside the Box*

Key: full = a, three-fourths = b, half = c, one-fourth = d, not begun = e



- one
- two
- none (to be half made, exactly two of the four lines of the box must be there)
- none
- one



- sixteen
- two
- three
- six
- five
- None

## PAGE 56: *In Search of Numbers*

- 2
- 13
- 74
- 86
- 456
- 108

## PAGE 57: *Alien Phenomenon*

	Total number of hands	Inside or outside the asteroid belt
2. Sunev	3	inside
3. Rucremy	4	inside
4. Smar	7	outside
5. Retipuj	5	outside
6. Rutans	1	inside
7. Sunaru	2	inside
8. Enutpen	6	outside
9. Otulp	7	inside

## PAGE 58: *One-Hit Wonder*

- 1992
- 1983
- none
- 1984, 1986
- none
- 1988
- 1995
- none
- 1990

Answer: 1989

## PAGE 59: *Break the Code!*

The code (Rebmun number = Earth number):

- 0 = 5    2 = 3    4 = 1    6 = 2    8 = 7  
1 = 6    3 = 9    5 = 8    7 = 0    9 = 4
- $9 + 0 = 9$
  - $4 + 4 = 8$
  - $1 + 6 = 7$
  - $0 + 0 = 0$
  - $4 + 3 = 7$
  - $5 + 2 = 7$
  - $8 + 1 = 9$
  - $2 + 0 = 2$
  - $8 + 8 = 16$

## PAGE 60: *Oops, Wrong Number*

- 852-4419
- 541-1632
- 352-3911
- 288-2648
- 666-6667
- 650-7997
- 235-5799
- 415-4444
- 723-1651
- 453-4231