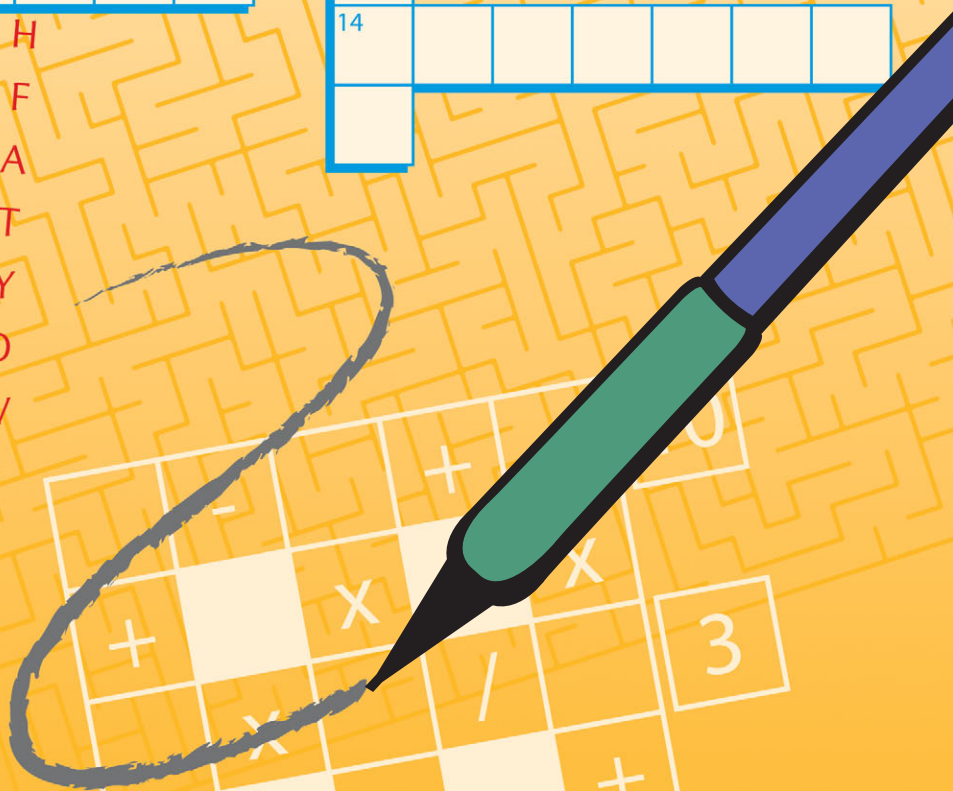
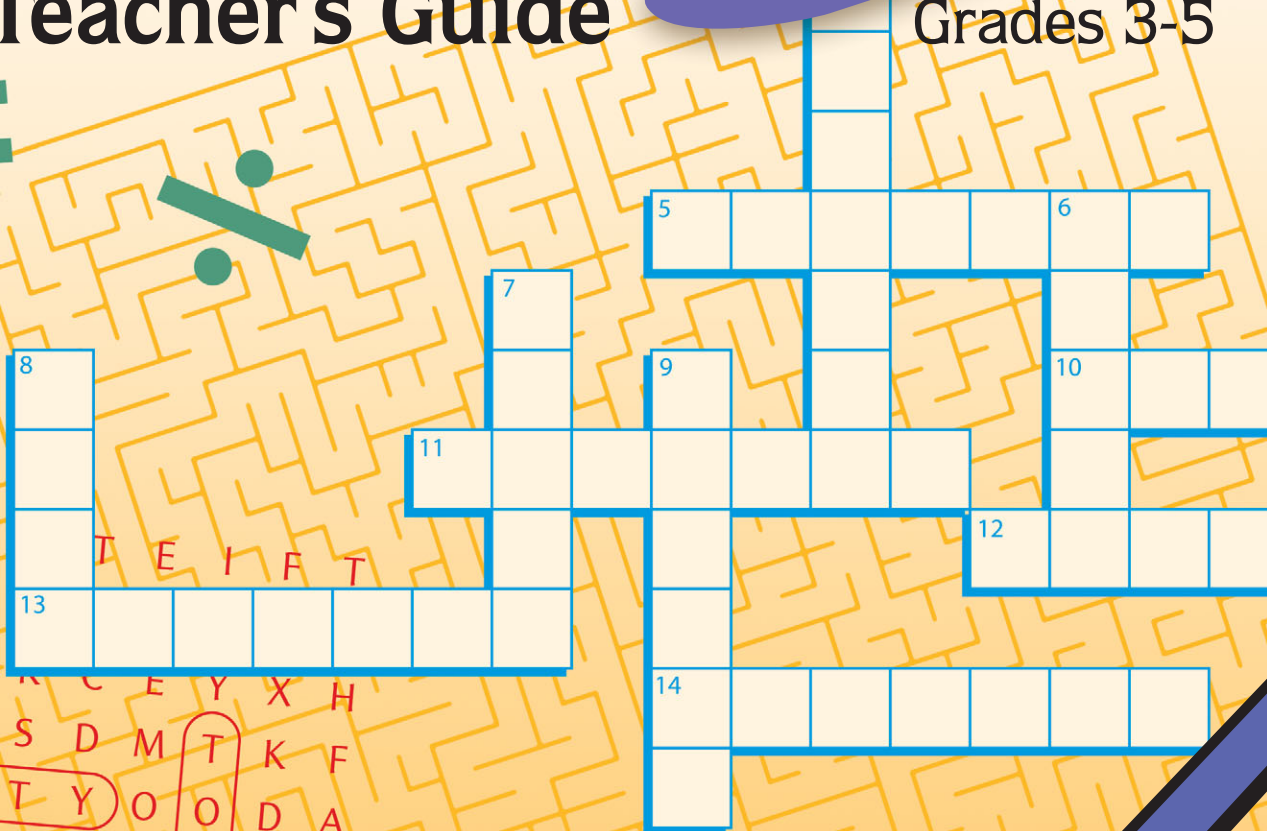
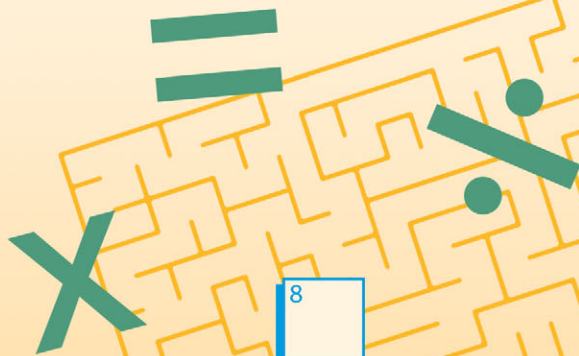


BIC Brain Boosters

Teacher's Guide

Grades 3-5



Dear Teacher,

BIC is proud to sponsor this classroom guide to help your students have fun while learning. Because students are so inquisitive, we've developed a series of games to help bring out deductive reasoning and problem-solving skills in your students. You can help your students by doing the following:

- Approach every lesson as if it were a mystery to solve.
- Instead of telling the students information you want them to know, have them "figure it out" using first-hand experiences.
- Encourage your students to create their own puzzles and games to demonstrate understanding of the topics you are covering.

In this guide, you'll find a series of games related to the 3rd through 5th grade curriculum in math, science, social studies, reading, and the arts. Also included are flash cards to use for a class Brain Booster game, allowing your students to use their creative and problem-solving skills in a collaborative environment. Use these ideas as a springboard to initiate your own content-centered games.

Your Friends at BIC

Guide for the Games

BRAIN BOOSTER FLASH CARDS

Rules: Divide your class into two or more groups. Then, have students take turns being the "clue-giver." The clue-giver will select a card at random. The student will then need to think of a specific example of the topic listed on the card. He or she will then use words (up to two) or pictures (as many as they want) to give his or her teammates clues about their specific example. Have students use the BIC® Great Erase® Dry Erase Marker to draw their word or picture clues on the classroom whiteboard for students to solve! You can also use a chalkboard if you do not have a classroom whiteboard. You may choose to give each team 30 seconds, 60 seconds, or an unlimited amount of time to play.

STUDENT GAME ANSWERS:

Grid Art

In this game, students will draw a grid over an existing photograph or magazine image, and will try to reproduce that drawing in the grid provided in this booklet. You can assist your students by focusing their attention on the shapes found within one "square" and reminding them to ignore the picture as a whole.

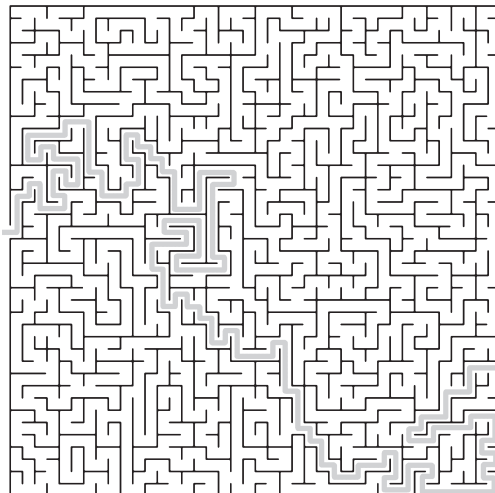
Find It - Draw It!

Teachers, be sure to look through the list of items students will be searching for to ensure that there are plenty of each category scattered throughout the room.

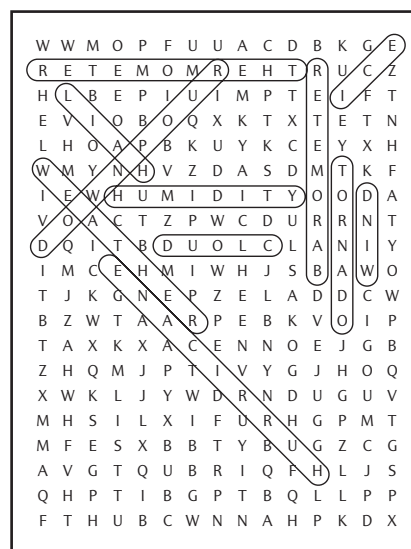
Letter Tiles

Answer: In fourteen-hundred-ninety-two, Columbus sailed the ocean blue.

Maze



Word Search



Word Metamorphosis

Meet	Pen	Draw
Meat	Pet	Raw
Team	Pat	War
Teem	Fat	Way
Them	Far	Pay
Then	Ear	Play
Than	Earn	
Thank	Learn	
Think		

Crossword

[Answers:]

ACROSS

2. "Little Women" (Alcott)
4. "The Wizard of Oz" (Baum)
5. "Alice's Adventures in Wonderland" (Carroll)
10. "Little House in the Big Woods" (Wilder)
11. "Kim" (Kipling)
12. "Summer of the Swans" (Byars)
13. "A Wrinkle in Time" (L'Engle)
14. "Harry Potter and the Sorcerer's Stone" (Rowling)

DOWN

1. "Tales of a Fourth Grade Nothing" (Blume)
3. "Bridge to Terabithia" (Paterson)
6. "The Giver" (Lowry)
7. "Charlotte's Web" (White)
8. "James and the Giant Peach" (Dahl)
9. "Ramona Quimby, Age 8" (Cleary)

Brain Game

7	-	1	+	4	10
+		x		x	
9	x	2	/	6	3
+		+		+	
3	-	8	/	5	-1
19		10		29	

More Brain Games

39

5	7	3	1	9	3	4	8	40
1	1	6	1	5	1	8	9	32
9	7	5	1	6	9	4	5	46
9	1	2	6	4	2	3	4	31
0	0	2	1	5	5	6	4	23
8	4	6	5	8	9	0	8	48
6	3	9	3	2	7	1	2	33
0	4	9	6	9	5	3	0	36
38	27	42	24	48	41	29	40	32

All in Common

- Paint / Winter / Arms (answer: coat)
 Pig / Ball-point / Play (answer: pen)
 Music / Aid / Rubber (answer: band)
 Chart / Dinner / Postpone (answer: table)
 House / Page / Base (answer: home)
 Movie / Constellation / Gold (answer: star)

Patterns

1, 3, 7, 15, _____ (answer: double the number, then add one: 31)

A, be, cat, door, _____ (answer: the next letter in the alphabet and add a letter to the word)

October, July, April, _____ (answer: answer: January – three months before the previous month)

Red, orange, yellow, green, _____ (answer: blue, indigo, violet)

Baltimore, Maryland, United States of America, _____ (answer: North America – continent)

Mercury, Venus, Earth, _____ (answer: Mars – distance from the Sun)

Final Puzzle

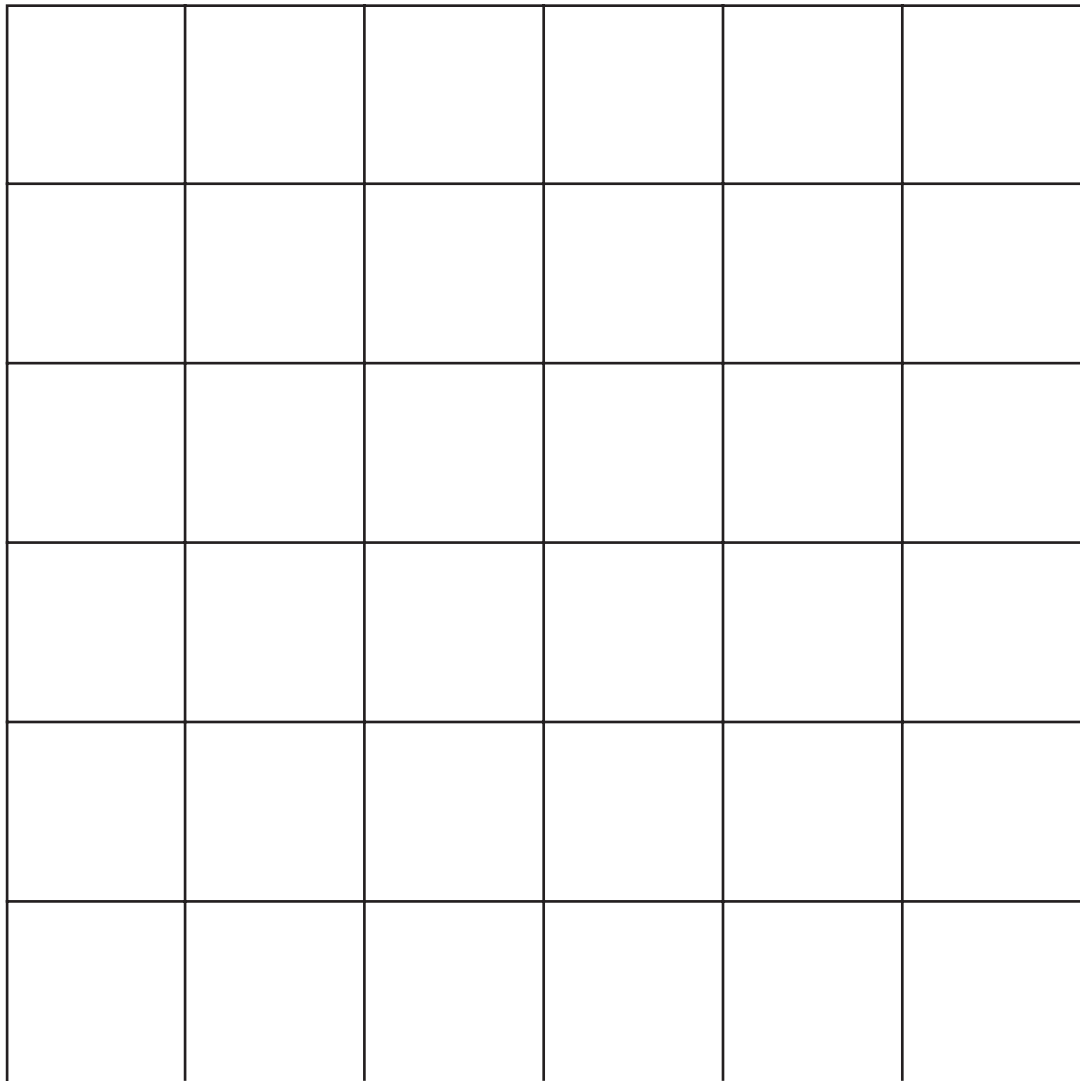
(answer: Figuring out is fun!)





Grid Art

Use this grid to help you draw. Find a picture or photograph you would like to draw. Then, using a ruler, make a grid like this one right on the picture. Draw lines up and down and side to side, one inch apart. Then, look at each of the one-inch squares. Try to draw what is inside each of the squares on your paper. In no time, you'll have a full picture!



Pick something you've been studying in class, like a simple machine or a map, and find a picture of it. Use the *Grid Art* game to re-create the picture to help you remember all its parts.



Find It - Draw It!

Look around your classroom for each of the things on this list. Draw it in the space next to the phrase. Good luck!

Something less than 3 days old	Something you look at but don't touch
Something older than you	Something somewhere it shouldn't be
Something assembled with tape	Something that can help you find your way
Something numbered to 200	Something backwards
Something made of styrofoam	Something that starts with the first letter of your name

Make your own set of Find It-Draw It! Clues. Pick a topic you are studying in class and make up clues about it for a classmate to find and draw.



Letter Tiles

One way to help you remember facts is to learn "mnemonic devices," or memory aids. Sometimes you can make up short rhymes to memorize a fact. Try to solve this one, and then make up your own.

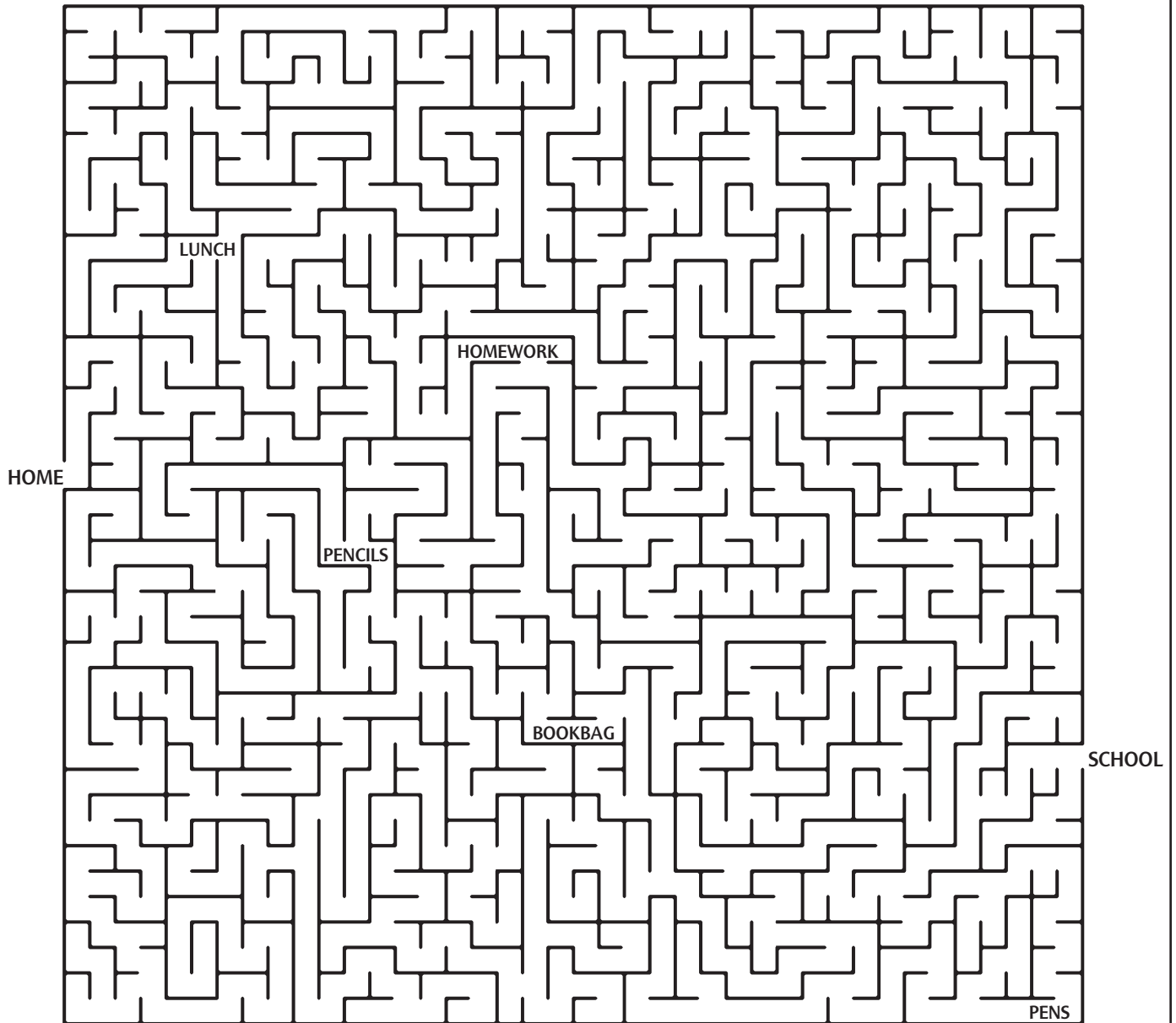
TWO	FOU	EU.	EN-	TY-	ED	RTE	OC
HUN	MBU	THE	. C	EAN	S S	DRE	D-N
IN	BL	OLU	INE	AIL			

Use index cards to create puzzles to help you and your friends study for your next science or social studies test. Write a rhyme to help you remember something. Copy the rhyme onto the index cards, using only three letters on each card. Mix them up and take turns unscrambling each others' rhymes. Then use the rhymes to study!



An Ed-Venture Maze

The BIC Boy is off to school, but he seems to have forgotten some of his supplies! Help the BIC Boy find the missing supplies and get to school on time!



Create your own maze using special clues to help your classmates find their way!



Weather Word Search

Try to find 12 weather words!



BAROMETER

CLOUD

DOWNPOUR

HAIL

HUMIDITY

HURRICANE

ICE

SLEET

THERMOMETER

TORNADO

WEATHER

WIND

Pick one of the subjects you are studying in school and make your own word search. Trade searches with a friend, or ask your teacher to make copies for the whole class!



Word Metamorphosis

In this challenge, you will start with one word and turn it into another by doing the following:

- Add a letter
- Remove a letter
- Change a letter
- Rearrange a letter

Each time you do one of the above, you must form a new real word.

Example:

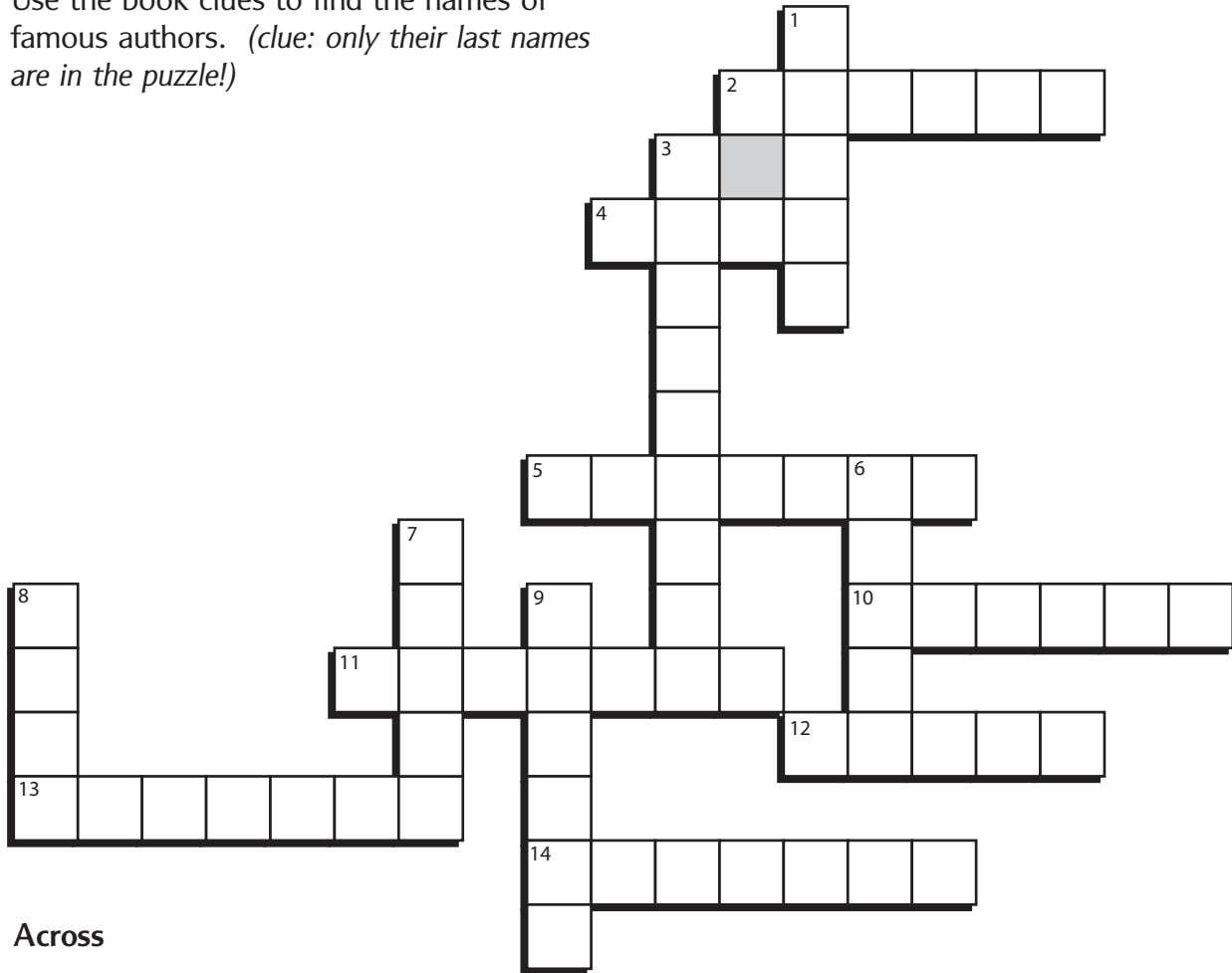
Name	Meet	Pen	Draw
Same	_____	_____	_____
Safe	_____	_____	_____
Safer	_____	_____	_____
Wafer	_____	_____	_____
Water	_____	_____	Play
Waster	_____	_____	
Waste	_____	Learn	
Taste	Think		

Work with a partner to create a Word Metamorphosis puzzle that takes six steps, eight steps, 12 steps. See who can come up with the longest metamorphosis puzzle.



The Name Game

Use the book clues to find the names of famous authors. (clue: only their last names are in the puzzle!)



Across

2. "Little Women"
4. "The Wizard of Oz"
5. "Alice's Adventures in Wonderland"
10. "Little House in the Big Woods"
11. "Kim"
12. "Summer of the Swans"
13. "A Wrinkle in Time"
14. "Harry Potter and the Sorcerer's Stone"

Down

1. "Tales of a Fourth Grade Nothing"
3. "Bridge to Terabithia"
6. "The Giver"
7. "Charlotte's Web"
8. "James and the Giant Peach"
9. "Ramona Quimby, Age 8"

Pick one of the subjects you are studying in school and make your own crossword puzzle. Trade searches with a friend, or ask your teacher to make copies for the whole class!



A Brain Game

Fill in the missing numbers.

Use the numbers one through nine to complete the equations.

- Each number is only used once.
- Each row is a math equation. Work from left to right.
- Each column is a math equation. Work from top to bottom.

	-		+		10
+		x		x	
	x		/		3
+		+		+	
	-		/		-1
19		10		29	

Try to make your own math puzzle. You can make one larger or smaller than this one. You can even add additional rules! Trade searches with a friend, or ask your teacher to make copies for the whole class!



More Brain Games

Fill in the missing numbers.

- The missing numbers are integers between zero and nine.
- The numbers in each row add up to totals to the right.
- The numbers in each column add up to the totals along the bottom.
- The diagonal lines also add up the totals to the right.

39

5		3	1	9	3	4	8	40
1	1	6		5	1	8		32
9	7	5	1		9		5	46
9		2	6	4	2	3	4	31
	0	2	1	5		6	4	23
8	4	6	5	8	9	0	8	48
6			3	2	7	1	2	33
0	4	9	6	9	5	3	0	36
38	27	42	24	48	41	29	40	32

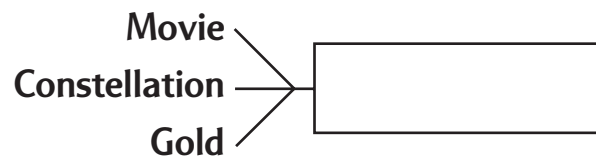
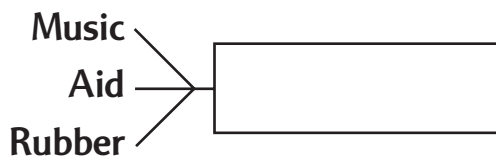
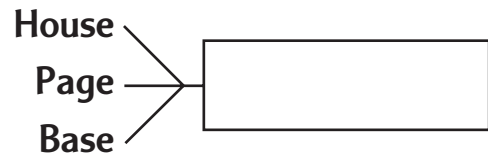
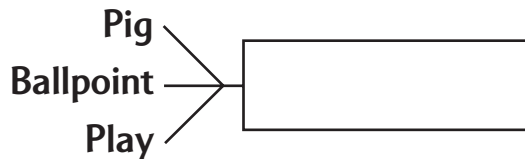
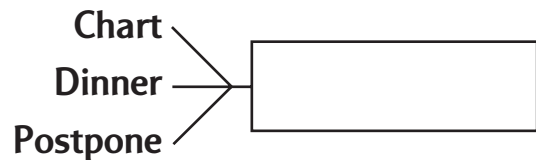
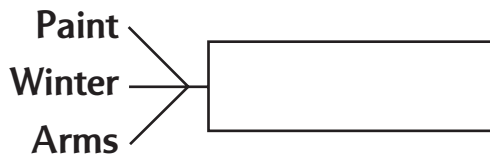
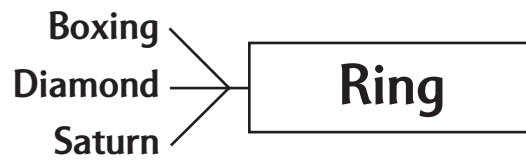
Can you make your own math puzzle? For a real challenge, try to make one where the solver needs to subtract or multiply instead of add!



All in Common

Figure out what each of the following sets of words have in common.

Example:



Can you think of other examples of words which share another word in common?
Remember, the best examples are those where the mystery word has more than one meaning.



Patterns

Patterns can be found in every subject. You can make patterns out of numbers, words, music, and even pictures. Figure out the next item in the following series of patterns, and then make your own!

1, 3, 7, 15, _____

A, be, cat, door, _____

October, July, April, _____

Red, orange, yellow, green, _____

Baltimore, Maryland, United States of America _____

Mercury, Venus, Earth _____

What other patterns can you think of? Try to write or draw your own pattern for a friend to solve.



Final Puzzle

Use your decoding skills to figure out this secret message. Then, make your own code and your own puzzle!

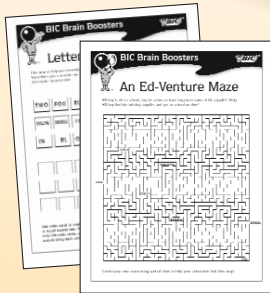
A	B	C	D	E	F	G	H	I	J	K	L	M
2				14								

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
	18											

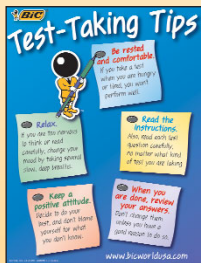
$\frac{19}{11}$ $\frac{12}{26}$ $\frac{15}{11}$ $\frac{9}{12}$ $\frac{O}{18}$ $\frac{26}{8}$
 $\frac{11}{21}$ $\frac{19}{26}$ $\frac{9}{9}$!

What other mysteries or puzzles can you create to make learning fun? Be sure to share them with your classmates and your teacher!

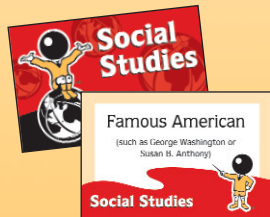
BIC Brain Boosters Program Components



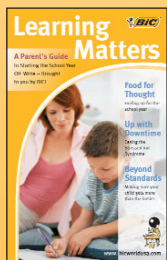
- **Teacher's Guide with Games** – This guide includes both student reproducibles and implementation suggestions. The activities in this guide are designed for students in grades 3-5. Activities include subjects that complement your curriculum, focusing on standard learning areas such as "Weather," "American History," "Geography," and "Culture."



- **Classroom Poster** – This poster contains test-taking tips for your students to utilize throughout the school year.



- **Flash Cards** – Brain Booster Flash Cards allow your students to use their creative and problem-solving skills in an interactive environment. The game's rules are featured on a special instructions card (on top of the flash card pack) and inside the Teacher's Guide. BIC® Great Erase® Dry Erase Markers are provided for use with flash cards so that students can draw their clues on the class whiteboard. If your classroom does not have a whiteboard, the Brain Booster game can be played with chalk on a chalkboard.



- **Parent Newsletter** – The "Family Matters" newsletter provides valuable information to your students' families about how to support learning at home. Please hand out newsletters to parents at back-to-school parent events or backpack them home with students.



- **BIC® Great Erase® Dry Erase Markers** – The enclosed BIC® Great Erase® Dry Erase Marker is great for various classroom activities, including those presented in this program. BIC® Great Erase® Dry Erase Markers are low odor and let you write bright messages, making them perfect for classroom use.

Don't forget to photocopy the last activity before clipping this coupon.

Manufacturer's Coupon Expires December 31, 2006

SAVE \$1.00 On Any

CONSUMER: Only one coupon is redeemable per purchase and only on BIC® Stationery Products. Coupon may not be combined with any other offer and not subject to doubling. Void if copied, transferred, prohibited or otherwise restricted. Consumer pays sales tax. Good only in U.S.A.
RETAILER: BIC USA INC. will redeem this coupon for \$1.00 plus 8¢ handling fee if submitted in compliance with BIC's Coupon Redemption Policy, copies available upon request. Good only on specified products and sizes. Mail coupons to BIC USA Inc., P.O. Box 880072, El Paso, Texas 88588-0072. Cash value 1/25 of 1¢.



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