

3rd – 9th grades

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Link to Logic

By Betty Brammer

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Learning how to think and reason logically helps in problem solving skills that last a lifetime. These matrix puzzles offer practice to accomplish that goal.

Kids can manipulate the matrix or use pencil and paper. Students can follow a step-by-step process or use combined strategies with a partner.

They'll learn that there is no one path for solving the puzzles, that they can be approached from different angles – yet they will still arrive at the right answers.



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DEDICATION

This puzzle book is dedicated to Greg Voelz who (and I tease) raised me to a level for which I was not qualified, but worked to become. For it was those challenging gifted students for whom these puzzles were written; to my family of positive thinkers who believe in me: Scott, Adam, Helen, Marty, Andrea, and Julie; To Marion, my mom, a writer in her own right!; to Ray, my dad who gave me my sense of humor; to the Up With People people who fed my curiosity in the psychedelic '60's and to all puzzle lovers everywhere!

ACKNOWLEDGEMENTS

Terri Peterson for editing and friendship
JoJo, Lakiasha, Hillary
My gifted classes and fourth grade students

THINK ABOUT THIS:

Were your answers to teacher's questions RARELY the same as anyone else's? Did you stay silent and keep your "wrong" answers to yourself?

Did you ever feel this way? I did.

Teaching gifted education changed my belief system about how people learn. I discovered people's learning styles cause them to see problems from different perspectives. It doesn't mean they're wrong, their answer is just different. Usually, their answer is creative, not wrong. Practice your logical thinking in Links to Logic and find out just how smart you are. This includes adults. Don't you feel better, now?

LINKS TO LOGIC

OBJECTIVE

Each puzzle in LINKS TO LOGIC offers exercises in deductive reasoning to move from a premise to a logical conclusion.

PURPOSE & RELEVANCY

Problem solving skills are essential as a life skill. Deductive reasoning is the most familiar form and is, therefore, the place to begin.

THE PUZZLE

There are three parts to each puzzle.

1. SCENARIO—to identify the elements of the puzzle.
2. CLUES—to offer an opportunity to combine, relate, sequence, and eliminate bits of information.
3. GRID—to deduce a solution by organizing the information given by the clues. The one square not eliminated in a crossing column and row is the correct answer.

The scenario and clues give suggestions to make links and connections in logic to form the final solution on the grid. Remember, the process involved in reasoning is the important focus, and the actual solution—a bonus!

DEDUCTIVE REASONING QUESTIONS

As you solve these puzzles, ask yourself these questions, especially whenever you need help:

1. Are there any other possibilities here?
2. Is there another way of doing this?
3. Why did I reject that idea?
4. That doesn't seem related. Is it related in some way?
5. Could I look at this in a different way?
6. What assumptions am I making?
7. What clue "links" to make the connection?

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HINTS IN MARKING THE GRID:

A. Be consistent.

B. To help keep track of the sequence in which you solve your problem, use these helps:

1. To eliminate a choice, put an X in the box:
Before you eliminate a choice, be sure.

2. To mark a correct answer, use a happy face:



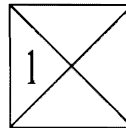
Then say, "When you make a happy face, you X-out some others," because there is only one answer (one happy face) per horizontal row and vertical column.

3. If a clue says, "A girl ran in the first race," place an MY for "Maybe yes":

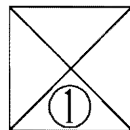


in the boxes in the rows with girls' names and under the Race One column.

4. While solving the puzzles, keep the responses in order beginning with #1 in the first box that's X'ed out and a #2 in the second and so on until all the clues have been used. The ORDER NUMBER looks like this:



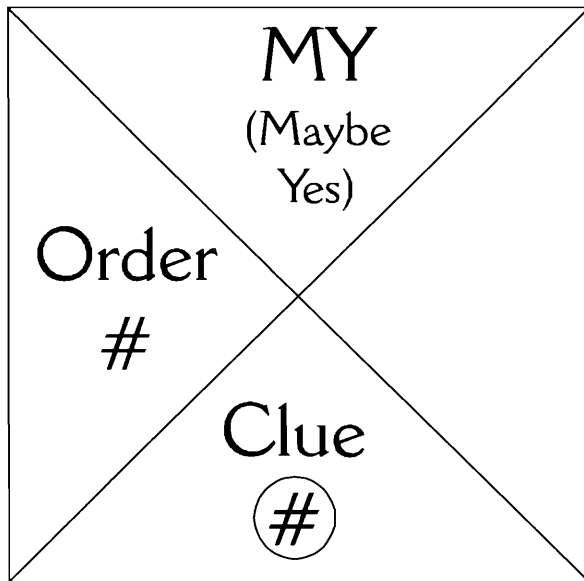
5. While solving the puzzles, keep the clues in order. One clue might suggest you X-out one or more boxes. When that happens, keep order by writing the CLUE NUMBER like this:



6. Note: Sometimes the SCENARIOS even give clues in solving the puzzles.

A box may look like this:

Or, this:



"WHEN YOU MAKE A HAPPY FACE
YOU X-OUT SOME OTHERS!"

Mark on this grid as you
read the detailed clues
that follow...

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	Party Store	Toy Store	Pet Store	Bicycle Store
Andrea				
Scott				
Adam				
Julie				

PRACTICE :

Try solving this puzzle - -

STORE OWNERS

SCENARIO

Four store owners, Andrea, Scott, Adam, and Julie, own these stores: the Party Store, the Toy Store, the Pet Store, and the Bicycle Store. Study the clues and match each owner to his/her store.

CLUES

1. A girl owned the Toy Store.
2. Scott loved to take gag-gifts from his store to parties.
3. Julie rode a new bicycle home every evening.

_____	owns	_____
_____	owns	_____
_____	owns	_____
_____	owns	_____

There are many ways to work the puzzles . . .
One way to work the puzzle is . . .

Clue 1: A girl owned the Toy Store.

- Mark two "MY's" under the Toy Store column in the rows with the girls' names.
- No need to ORDER
NUMBER the Maybe Yes's.
- Cross out the boys' names since neither can own The Toy Store.

	Party Store	Toy Store	Pet Store	Bicycle Store
Andrea		MY		
Scott				
Adam				
Julie		MY		

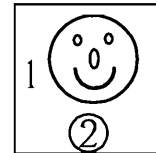


Clue 2: Scott loved to take gag-gifts from his store to the parties.

- We now know Scott's store is the Party Store so make a happy face under the Party Store column and in Scott's row.

You might want to try this . . .

- Write the ORDER NUMBER as #1 and the CLUE NUMBER as circled 2 below the happy face:



To help you understand the reason certain squares are X'd you might want to . . .

- Place an X, an ORDER NUMBER, and a CLUE NUMBER in all other boxes in the Party Store column as shown, and in Scott's row because:
 - If Scott is the Party Store owner, then Andrea, Adam, and Julie are not the owners. Mark the squares with the ORDER #'s 2, 3, 4, and the CLUE # 2.
 - Otherwise, if Scott is the Party Store owner, he is not the Toy, Pet, or Bicycle Store owner. Mark the squares with the ORDER #'s 5, 6, 7, and the CLUE # 2.

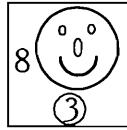
	Party Store	Toy Store	Pet Store	Bicycle Store
Andrea	2 X ②	MY		
Scott	1 Happy Face ②	5 X ②	6 X ②	7 X ②
Adam	3 X ②			
Julie	4 X ②	MY		

Your puzzle might look like this so far:

Remember: "WHEN YOU MAKE A HAPPY FACE YOU X-OUT SOME OTHER SQUARES!"

Clue 3: Julie rode a new bicycle home every evening.

- a. Therefore, Julie is the Bicycle Store owner, so make a happy face under the bicycle store column and in Julie's row. Label it 8th for order and # 3 for the number of the clue that gave you the information.



- b. Mark an X in the empty boxes in the Bicycle Store column and label each #9 and # 10 for the order numbers because if Julie is the Bicycle Store owner, neither Andrea nor Adam is.
- c. If Julie is the Bicycle Store owner, Julie is NOT the Toy or Pet Store owner. Therefore, mark an X in Julie's row in the Toy and Pet columns. Number them #11 and #12, Clue # 3.
- d. Mark the clue number that told you this, which is CLUE # 3 in boxes 8, 9, 10, 11, 12. NOTE: You X'ed out one of the MY's (Maybe Yes), Clue # 3 revealed this to you.

Your puzzle might look like this so far.

	Party Store	Toy Store	Pet Store	Bicycle Store
Andrea	2 ②	MY		9 ③
Scott	1 ②	5 ②	6 ②	7 ②
Adam	3 ②			10 ③
Julie	4 ②	11 ③	12 ③	8 ③

- e. Mark a happy face in the MY box in the Toy Store column on Andrea's row. It's the 13th action you've made (order) and clue # 3 told you this information. "When you make a happy face, you X-OUT some others!" X-OUT #'s 14.
- f. Since there is only one opening left in Adam's row under the Pet Store column, and since there are no correct answers in this row, mark this last box with a happy face, ORDER # 15, and CLUE # 3.

Here is your completed puzzle . . .

Puzzle

Answer:

Andrea, Toy Store
 Scott, Party Store
 Adam, Pet Store
 Julie, Bicycle Store

	Party Store	Toy Store	Pet Store	Bicycle Store
Andrea	2 (2)	13 (3) MY	14 (3)	9 (3)
Scott	1 (2)	5 (2)	6 (2)	7 (2)
Adam	3 (2)		15 (3) 😊	10 (3)
Julie	4 (2)	11 (3) MY	12 (3)	8 (3) 😊

The first few puzzles may be slow going. Eventually, puzzle solvers may omit the ORDER NUMBERS and CLUE NUMBERS as they will understand the process of order without this tool.

Happy puzzle solving . . .

THE FLOOR PUZZLE FORMAT

To apply the Seven Multiple Intelligences, use a floor grid for one of the puzzles.

To make a floor grid use a white sheet. Mark one-foot grid lines horizontally and vertically on the sheet with a permanent fabric marker. (Permanent magic marker works except it may pool and run!) The size of the sheet determines the number of one-foot squares you will be able to make.

From posterboard, cut and laminate 12" diameter circles on which you can write, using a washable overhead pen, the scenario categories. (Remember, scenario components change with each new puzzle.)

Cut and laminate 12" squares on which students will write large Xs, happy faces, MYs for "maybe yes" and numbers for the order numbers and circled clue numbers.

Encourage all students to attempt the puzzle. In this way, all students have a chance to feel comfortable in his/her own learning style.

For these puzzles, the seven Multiple Intelligences can be explained and interpreted for use in the Floor Puzzle format in this way:

1. The logical/mathematical "questioner" uses inductive and deductive reasoning to help explain why a clue is included and helps with the meaning of the clue.
2. The linguistic learner can "play with the words" in the scenario or clues to offer a different perspective.
3. The visual/spatial "visualizer" can construct the product in the mind's eye. He grasps analogies — if this, then that!
4. "The music lover" is imaginative and senses connections and changes.
5. The bodily/kinesesthetic "mover" interacts better with space and, therefore, the larger format is preferable.
6. The interpersonal "socializer" loves leading others in groups, cooperating, organizing, and relating to others person to person.
7. The intrapersonal "individual" may stand beside the floor puzzle and work alone, self-paced, pursuing his/her own answers.

THE SEVEN MULTIPLE INTELLIGENCES

1. LOGICAL-MATHEMATICAL INTELLIGENCE — “the questioner”
 - *inductive/deductive reasoning *figures things out *facts and figures
 - *explains why *classifying *explores abstract patterns and relationships
 - *objective information *problem solving games
2. LINGUISTIC INTELLIGENCE — “the word player”
 - *gives detailed descriptions *grasps metaphors *reads, writes, tells stories
 - *interacts with the written word
3. VISUAL/SPATIAL INTELLIGENCE — “the visualizer”
 - *draws, builds, designs *creates *daydreams *pictures *watches
 - *can construct *plays with machines
 - *sees dimension *grasps analogies *sees angles *if this, then that
 - *invents *makes mechanical devices
4. MUSICAL INTELLIGENCE — “the music lover”
 - *plays an instrument *picks up sounds, mimics, composes music
 - *produces music *senses changes *remembers melodies
 - *hears/reproduces environmental sounds *imagines
5. BODILY/KINESTHETIC INTELLIGENCE — “the mover”
 - *enjoys movement *uses body language *enjoys touch
 - *imitates impressions *interacts with space *can mime personalities
 - *wisdom of the body *produces motion
 - *can create internal mental images
6. INTERPERSONAL — “the socializer”
 - *has lots of friends *organizes others *leads others *likes sharing
 - *talks with people *joins groups *cooperates *a person-to-person person
 - *relates to others
7. INTRAPERSONAL — “the individual”
 - *works alone *follows instincts *self paced *self reflection
 - *understands self *metacognition (thinks about thinking)
 - *pursues own interests and goals
 - *needs own space *focuses inward on feelings and dream

HOLD A THINKING OLYMPIAD

A. Individually compete to solve a puzzle in a certain time limit, or the first to complete the puzzle correctly, wins.

B. Set up problem solving teams by —

1. separating students according to learning styles:
 - a. a visual team
 - b. an auditory team
 - c. a verbal team
 - d. a manipulative team
2. placing all leaders together. Since leaders always think they're right, it might be fun for everyone else to watch! Also, by removing this dominant force, new leaders are allowed to emerge in the other groups—those people usually overshadowed by the usual leader.
3. mixing kids randomly. This allows one to see how to solve problems from different perspectives.

Olympiad categories for competition ribbons

Let students come up with their own categories, or use these to offer competition ribbons.

- *FOREMOST LEADER
- *GREAT SUGGESTIONS
- *CREATIVE SPARKS
- *MOST RIDICULOUS STATEMENT
- *IDEA ZINGER
- *MOST OFF-THE-WALL CONNECTION
- *BEST DIRECTOR
- *MR./MISS FORGE AHEAD
- *THANKS FOR SHARING
- *BEST DEDICATION
- *FAMOUS FOR OTHERS' FEELINGS
- *WHEN YOU SPEAK IT'S GOLD
- *GREAT IDEAS
- *MR./MISS HAVE FUN AT ALL COSTS
- *MOST IDEAS
- *FABULOUS THINKER
- *MOST THOUGHTFUL
- *FASTEST THINKER
- *The "REALLY?" award
- *The "I DIDN'T KNOW THAT!" award
- *The "I CAME UP WITH THAT?" award
- *The "I DON'T GET IT!" award
- *The "I'M BAD!" award
- *The "HEY! THAT'S IT!" award

USING A PLANNING BOARD

After working several of the puzzles, use a planning board to rank your favorites.

1. List your 6 favorite titles in the empty boxes of your planning board.
2. Cut out and place all 6 titles on the planning board by ranking your favorite Box #1 to least favorite Box # 6.
3. Remove 2 titles you could live without and rerank your top 4 priorities.
4. Remove two more and rank the top two.
5. Remove one more & you have narrowed your choices to one, **your favorite!**

Why use the Planning Board? Use the Planning Board to narrow choices in making decisions. Be able to defend your decision. Students can use the Planning Board as they choose research topics, make personal decisions, and solve problems.

Exercise 1

In the puzzle called *Lady Inventors* use the planning board and rank order the most important invention to the least important according to society's needs:

- | | |
|-----------------------------------|---------------------------|
| a. scientifically written recipes | b. the baby jumper |
| c. coffee filters | d. chocolate chip cookies |
| e. disposable diapers | f. Liquid Paper |

Exercise 2

In the puzzle called *At the Hop* rank order to find your favorite 50's saying or car:

- | Saying | | Car | |
|------------|-----------------|-------------|--------------|
| a. "Cool" | b. "Man-oh-man" | a. '56 Ford | b. GT0 |
| c. "Wow" | d. "Daddy-oh" | c. XKE | d. '52 Chevy |
| e. "Neato" | f. "Go on it" | e. Jaguar | f. 409 |

THE BOARD

Write and cut out topics; rank order on choice side.

1st choice	2nd choice		
3rd choice	4th choice		
5th choice	6th choice		

Ready,

Set,

Puzzle!

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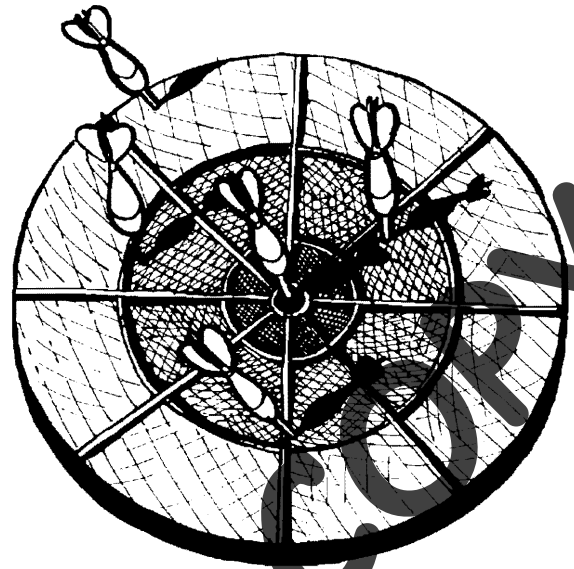
DARTS

SCENARIO

Pam, Sam, and Cam played darts every Saturday. Match each score to the player.

CLUES

1. Pam told the winner his score was impressive.
2. Sam congratulated Cam on her trick shot earning her a second place.



	1st	2nd	3rd
Pam			
Sam			
Cam			

FUTURE HOMES

SCENARIO

Fron, Sil, and Gire, want to paint their futuristic homes garnet, sunshine, and fuchsia. Using the clues below, find out who painted his/her home which color.

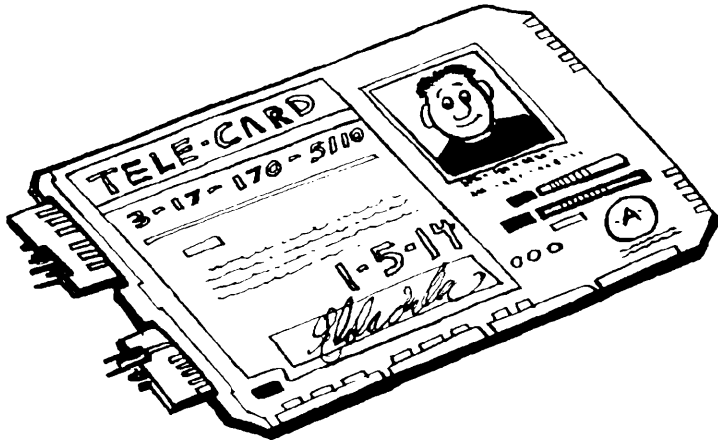
CLUES

1. No one's favorite color begins with the same letter as his/her name.
2. Sil loves red.

	Garnet	Sunshine	Fuchsia
Fron			
Sil			
Gire			



FUTURISTIC TELE - INVENTIONS



SCENARIO

Each person, Remo, Zan, and Lorn, owns one Tele-Invention — either a Tele-Card, Tele-Phone, or Tele-T.V. Find out who owns which invention.

CLUES

1. The person with the shortest name loves futuristic commercials.
2. Remo lost his Tele-Card.

	Tele-phone	Tele- card	Tele-T.V.
Remo			
Zan			
Lorn			

FUTURE TOYS

SCENARIO

Each child, Rem, Nori, Hep, and Kern, had a favorite toy — a Hover Board, a Hi-Fly Ball, a Tele-Game, and a Robot-Friend. Find out which child owned which toy.

CLUES

1. The Hover Board and Tele-Game are not the favorite toys of Rem or Kern.
2. Rem loves to play ball.
3. Hep rides his Hover Board to deliver newspapers.

	Hover Board	Hi-Fly Ball	Tele-Game	Robot-Friend
Rem				
Nori				
Hep				
Kern				

FAVORITE COLORS

SCENARIO

Red, blue, purple, and orange are the favorite colors of Rory, Bruce, Patricia, and Meg. Read the clues to match each person with his/her favorite color.

CLUES

1. Red and orange are not the favorite colors of Patricia and Meg.
2. The people with the shortest names like the colors with the longest names.
3. No one's favorite color starts with the same letter as his/her own name.

	Red	Purple	Blue	Orange
Rory				
Bruce				
Patricia				
Meg				

SPRING SOCCER

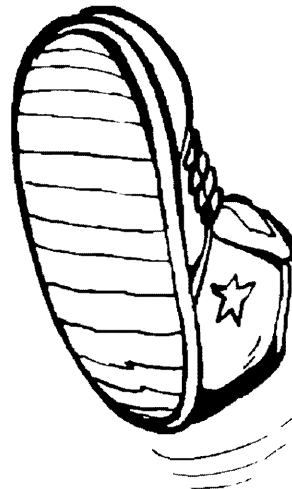
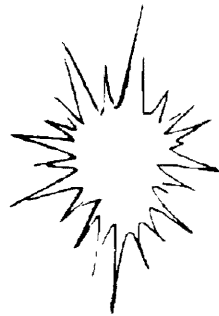
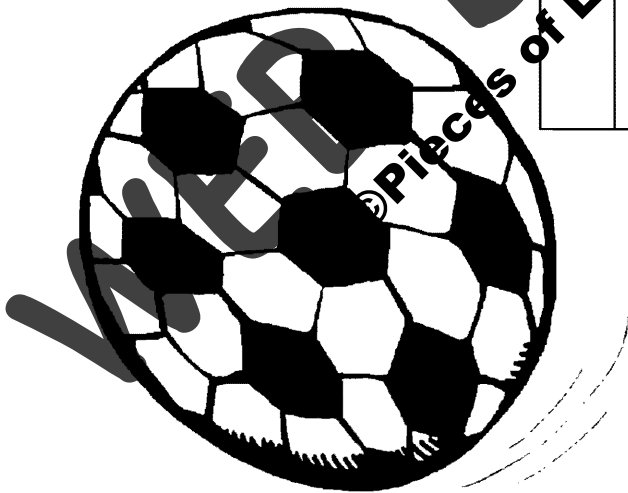
SCENARIO

Scott, Adam, Dave, and Wade play competitive soccer. During the spring season, each child made a different number of goals. See if you can make the team by making it your goal to find a winning solution.

CLUES

1. Scott has kicked more goals than Adam but fewer than Dave or Wade.
2. Dave kicked in as many goals as the sum of Scott and Wade's scores.

		NUMBER OF KICKS			
		2	3	5	8
PLAYERS	Scott				
	Adam				
	Dave				
	Wade				



ROLLERBLADE RACE

SCENARIO

The rollerblade finals were Saturday. David, Kenny, Rick, and Mary were the top four contenders. Each wore a different color of skates. Solve the puzzle to find out who rolled into 1st, 2nd, 3rd, and 4th place.

CLUES

- Mary, Rick, and the boy with the blue skates came in 2nd, 3rd, and 4th respectively. (Note: "Respectively" means "in order.")
- The 3rd place boy wearing vibrant yellow was faster than David and slower than the boy in neon.

		PLACE				COLOR			
		1st	2nd	3rd	4th	Vibrant Yellow	Hot Pink	Bright Blue	Neon Green
RACERS	David								
	Kenny								
	Rick								
	Mary								
COLOR	Vibrant Yellow								
	Hot Pink								
	Bright Blue								
	Neon Green								



"GET YOUR DUCKS IN A ROW"

SCENARIO

There were four friends who were inseparable — Maralie, Amanda, Lindsay and Emily who was always last to arrive. It was important to be on time and only one in four was always prompt. Which girl managed to get her "ducks in a row" and be on time?

CLUES

1. Lindsay believed in being fashionably late.
2. Amanda was 15 minutes later than Lindsay.

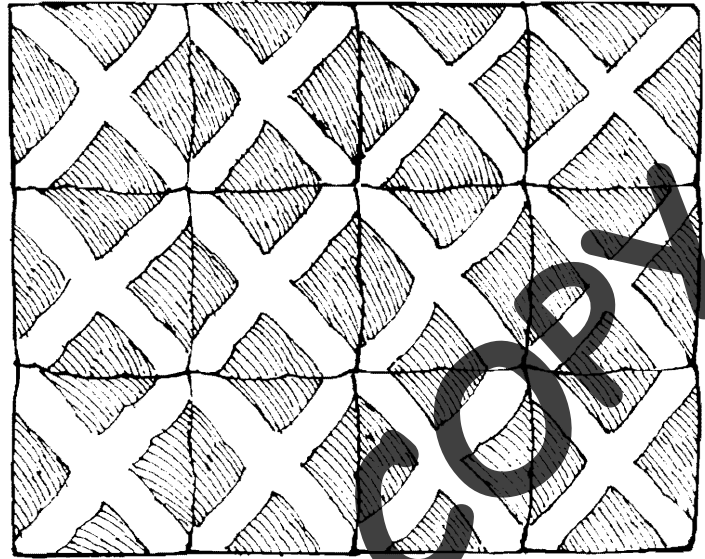


	7:00	7:15	7:30	7:45
Maralie				
Amanda				
Emily				
Lindsay				

QUILTER'S CHOICE

SCENARIO

Allie May, Margaret Ann, and Helen Pearl each planned to enter their quilts in the county fair. These three friends were the blue, red, and white place winners. Their quilts, the Lazy Daisy, Star of Blue Grass, and Snail's Trail were the hit of the fair! Match each lady to her quilt and where she placed in the contest.



CLUES

1. Margaret Ann whispered to Allie May, "I think you Snail's Trail should have won, and with results I, personally, was just happy to participate."
2. The Star of Bluegrass quilt won 3rd.

	1st	2nd	3rd	Lazy Daisy	Star of Bluegrass	Snail's Trail
Allie May						
Margaret Ann						
Helen Pearl						
Lazy Daisy						
Star of Bluegrass						
Snail's Trail						



PLAIN PALACE PLAYERS

SCENARIO

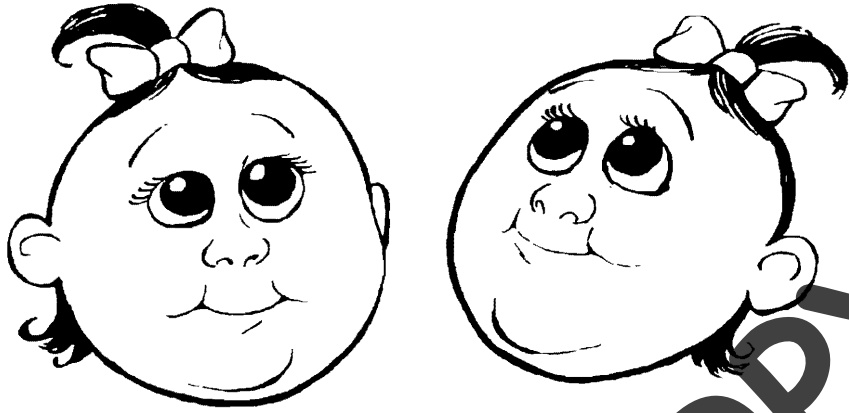
George, Antoinette, Randolph, Diana, and Henry, are the Baron, the Maid, the Minstrel, the Cook and the Fool. Match the Plain Palace Players to their titles.

CLUES

1. Antoinette and the cook played George and the Baron in a common game of cards.
2. Henry strummed in the background, while the young male fool danced.

	Baron	Maid	Minstrel	Cook	Fool
George					
Antoinette					
Randolph					
Diana					
Henry					

DOUBLE TROUBLE



SCENARIO

It's hard to believe, but two sets of twins with the last names Kirk and Finn were born within minutes of each other in a New York emergency room. The babies' birth certificates were written incorrectly. The medical staff only had two clues to help set straight the confusion.

CLUES

1. Brittany was born after the Finns and before Bonnie.
2. Brett was the oldest.

	KIRK		FINN		BIRTH TIME			
	Born 1st	Born 2nd	Born 1st	Born 2nd	3:21	3:23	3:20	3:16
Bonnie								
Bill								
Brittany								
Brett								

THE PICKLE AND ONION TWINS

SCENARIO

Back in the 1930's, there lived two friends who loved pickles and onions on their hamburgers. They enjoyed them so much that all their buddies called them the "pickle and onion twins."



CLUES

1. Amy truly believed ketchup belonged on everything, while Helen loved spicy sauces.
2. Charlotte said Ray was the pickle twin and his wife, Marion, didn't like onions.
3. Merrill said Charlotte was a fast rabbit when it came to veggies.

	Pickles	Onions	Lettuce	Tomatoes	Ketchup	Mustard
Ray						
Merrill						
Amy						
Marion						
Charlotte						
Helen						

STATES' PLATES

SCENARIO

John, Kristen, Neil, and Karen lived in Oregon, Iowa, California, and Tennessee. The nicknames for these states are The Volunteer State, The Hawkeye State, The Golden State, and The Pacific Wonderland State.

Match each person's home state to its nickname, and to his/her own personalized license plate.



CLUES

1. Neil hailed from a woody state off the northern Pacific.
2. Karen, an out-of-doors girl, loved the shimmering golden coastline.
3. No boy is from California or Tennessee, but one boy loved gardens.
4. "Who among you will volunteer?" questioned John. "I will, ya'll!" replied a girl.

PEOPLE	PERSONALIZED LICENCE PLATE NAME				NICKNAME				STATE			
	"Farmer"	"Surfing"	"Ya"	"Timber"	The Volunteer State	The Pacific Wonderland	The Golden State	The Hawkeye State	Oregon	Iowa	California	Tennessee
John												
Kristen												
Neil												
Karen												

MARSH CRITTERS

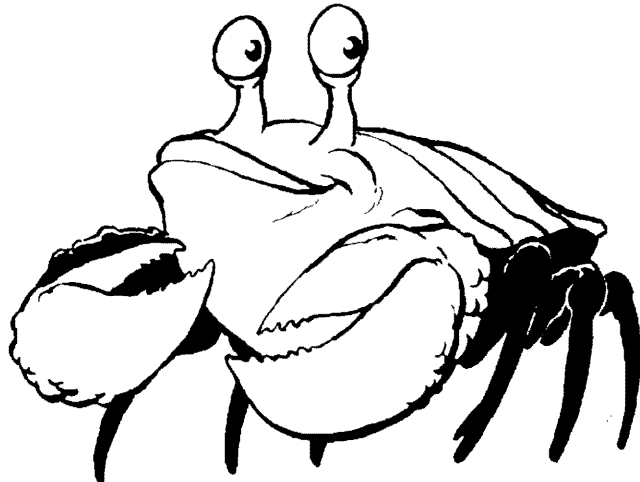
SCENARIO

The South Sea island coastline is abundant with many forms of life in general and crabs in particular. Tyler, Courtney, Miles, and DeAnne each owned a different type of crab — fiddler, horseshoe, blue, and mud. Each person and his/her crab lived on a specific island — Tybee, James, Hunting, or Hilton Head.

CLUES

1. Tyler's crab from Tybee, was heavier than the blue or fiddler crab but not as heavy as Courtney's.
2. The tiny fiddler from Hilton Head Island was not DeAnne's which was from Hunting Island.
3. The mud crab was 8 ounces.

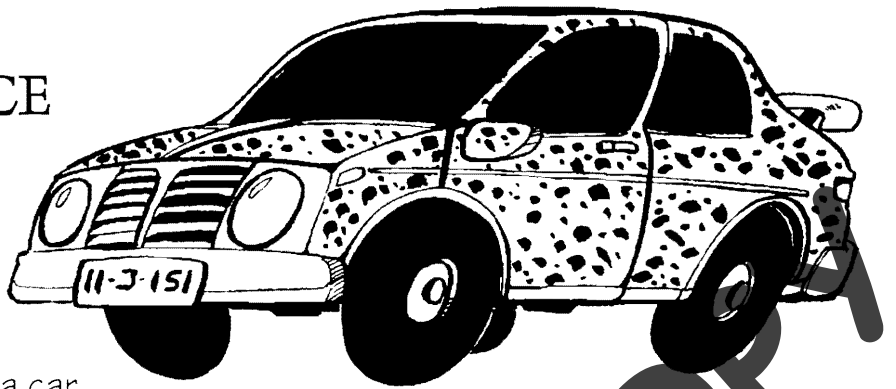
		CRAB				WEIGHT				ISLAND			
		Fiddler	Horseshoe	Blue	Mud	2 ounces	6 ounces	8 ounces	14 ounces	Tybee	James	Hunting	Hilton Head
OWNER	Tyler												
	Courtney												
	Miles												
	DeAnne												
WEIGHT	2 ounces												
	6 ounces												
	8 ounces												
	14 ounces												
ISLAND	Tybee												
	James												
	Hunting												
	Hilton Head												



BOXWOOD RACE

SCENARIO

Five children — Jeannie, Patrick, Ryan, Ruth, and Don each carved a car from wood for the county race. Each car had a different pattern — dots, waves, zigzags, stripes, and solid. Discover which child designed each car and its place in the race.

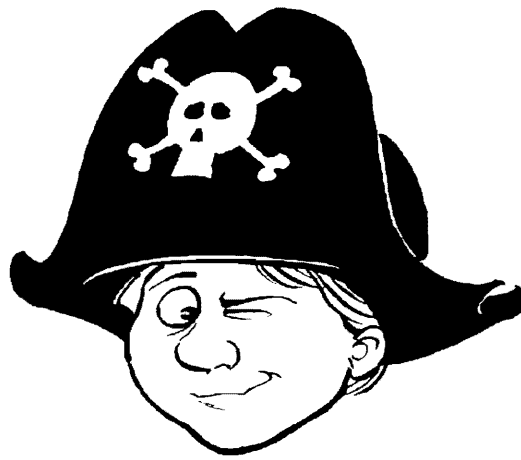


CLUES

1. Patrick and Don talked with the owner of the zigzag car at the tryouts yesterday.
2. It was a close race, and Ruth and Jeannie thought the solid car won at first.
3. Jeannie loves the ocean and designed her car with the same action as the sea.
4. Don preferred a straight line design and placed 4th.
5. Jeannie placed two places behind Ryan and was sorry for the girl who was last.
6. Ruth wrote her name like this:

Ruth

	Dots	Waves	Zigzag	Stripes	Solid	1st	2nd	3rd	4th	5th
Jeannie										
Patrick										
Ryan										
Ruth										
Don										



SCHOOL SPIRIT DAYS

SCENARIO

Find Jeff, Wes, John, Melinda, and Jill's favorite school spirit day — nerd, hat, team, backward, and pajama. Decide which day was most popular by participation.

CLUES

1. Melinda's favorite day was P.J. Day while her girlfriend preferred the least popular day.
2. Jeff's favorite, Team Day, showed participation scores between Wes' Nerd day and John's Backward Day, the most favorite.

	280	150	135	25	50	Nerd	Hat	Team	Backward	Pajama
Jeff										
Wes										
John										
Melinda										
Jill										

WHAT'S YOUR HOBBY?

SCENARIO

Five ladies — Anne, Cheryl, Nancy, Jane, and Ginny each had a different hobby — bridge player, quilter, jeweler, florist, and novelist. Match each person to her hobby.

CLUES

- Jane doesn't care for bridge.
- The bridge player and Anne often played tennis.
- Jane and Nancy purchased wall hangings that were sewn by the quilter.
- Nancy and the novelist often have lunch with the professional bridge player.
- The bridge enthusiast, the quilter, and Cheryl have some of the necklaces made by the jeweler.
- Jane asked Cheryl if she thought the florist would organize the flowers for her daughter's wedding.



	Bridge Player	Jeweler	Quilter	Florist	Novelist
Anne					
Cheryl					
Ginny					
Nancy					
Jane					

TWO IN EACH COUNTRY

SCENARIO

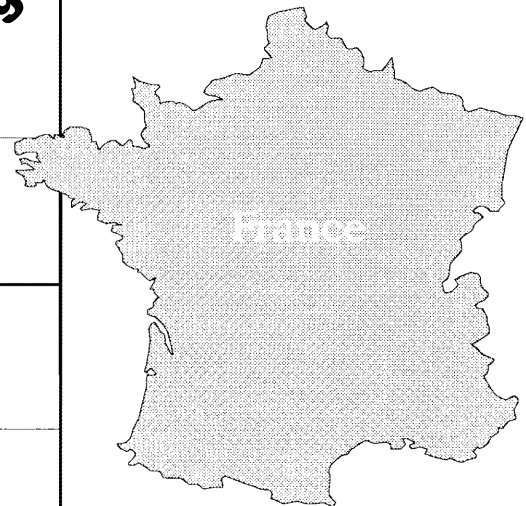
Mark, Tammy, Catie, Dan, Isabelle, Nancy, Tom, and Steve live in Australia, the United States, France, and England. Find which two live in each country.



	United States	Australia	France	England
Mark				
Tammy				
Catie				
Dan				
Isabelle				
Nancy				
Tom				
Steve				

CLUES

1. One of the Frenchmen wants to meet his English penpal, Isabelle.
2. Nancy has a pet kangaroo.
3. Tom and Dan live in North America.
4. Catie gives castle tours in London on the weekends.



BOW - WOW LANE

SCENARIO

Seven dogs — a Dalmatian, a Cairn Terrier, a Scottish Terrier, a Golden Retriever, a Poodle, a Dachshund, and a Malamute all live on a street called Bow-Wow Lane. Their house numbers are — 1A, 2B, 3C, 4D, 5E, and 6F. Match each dog to his doghouse.

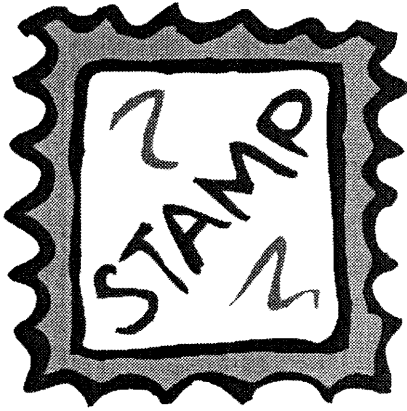


CLUES

1. The Terriers live in one doghouse.
2. There is only one animal living in 6F.
3. The Dalmatian doesn't live in house number 3C.
4. The Retriever lives between the Terriers' and Poodle's doghouses.
5. The Poodle and Dalmatian's houses are located in the center of the street.
6. The third house to the right of the Retriever's belongs to the Dachshund.

	1A	2B	3C	4D	5E	6F
Dalmatian						
Cairn Terrier						
Scottish Terrier						
Golden Retriever						
Poodle						
Dachshund						
Malamute						

PAIR THE PALS



SCENARIO

Katrina, Earl, Julie, Hans, Betty, and Kelly each have a penpal — Scott, Alex, Ikuko, Andrea, Terri, and Marty. Each person lives in a different town located in a Pacific Rim Country or Scandinavia or Europe or the United States of America. Match the penpals.

CLUES

1. Neither Scott nor Katrina had a penpal from England.
2. The Japanese girl's penpal was Southern.
3. Terri's pal was a boy.
4. The Charlestonian loved touring Scandinavia with his penpal.
5. The towns named for a rock and royalty are not pals, but the girl from Princeton liked her penpal's proper British terminology.
6. Marty wrote to Kelly.

	Scott Charleston	Alex Liverpool	Ikuko Tokyo	Andrea Boulder	Terri Salt Lake	Marty Denver
Katrina Berlin						
Earl London						
Julie Princeton						
Hans Norway						
Betty Savannah						
Kelly Memphis						

GREEN THUMB SHOPS

SCENARIO

The first through fourth plant companies to spring up over the years were respectively —

Green Plants Co., Plush and Green Co., Plant and Vine Co., and Floral Flora Co.

Each company has a manager —

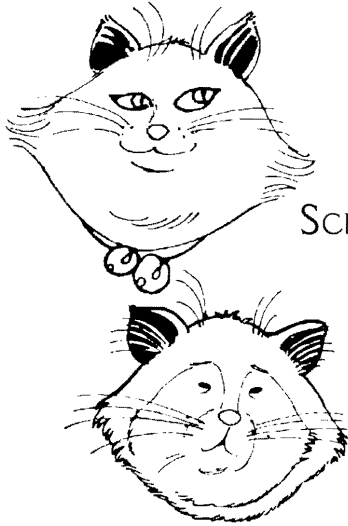
Mason, Johnson, Stevenson, and Carlson. Match managers to their companies.



CLUES

1. Mason used to work at Plush and Green but received a better offer from the company where he works now.
2. Johnson doesn't know the manager of the Plant and Vine Company.
3. The manager of Green Plants Company and his wife show their prize roses at flower shows biannually.
4. Stevenson, who opened the last store, had been in the floral business for 25 years.

	Green Plants Co.	Plush & Green Co.	Plant & Vine Co.	Floral Flora Co.
Mrs. Mason				
Miss Johnson				
Ms Stevenson				
Mr. Carlson				



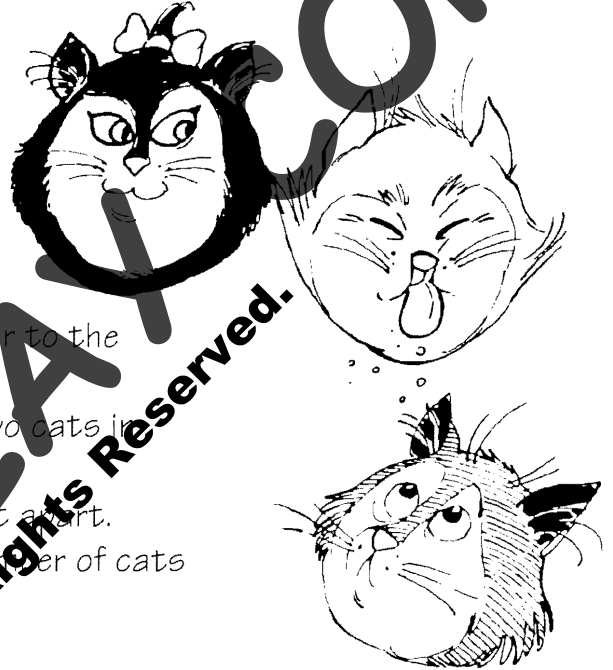
APARTMENT PEOPLE AND PETS

SCENARIO

In each apartment there reside cats with the families named Jones, Herman, Smith, Martinez, and Van Loo. Match the number of pets to number of family members to each apartment. It's common knowledge that the Smiths try to keep up with the Joneses.

CLUES

1. Three cats live with the Smiths.
2. The Joneses have four in their family.
3. Mr. Herman lives with his cat, two doors up from the Van Loos and next door to the Martinezes.
4. Chu Van Loo and his wife live with their two cats in apartment 102.
5. The Joneses and Martinezes live farthest apart.
6. Mr. and Mrs. Martinez have the same number of cats as family members.



	APARTMENT NUMBER					FAMILY MEMBERS					NUMBER OF CATS				
	101	102	103	104	105	1	2	3	4	5	1	2	3	4	5
Jones															
Herman															
Smith															
Martinez															
Van Loo															

THE JOB WORLD

SCENARIO

Carol, Rich, Lori, Billie, B.J., Dot, and Paul each worked as governor, antique store owner, environmentalist, author, engineer, doctor, or Olympic trainer. Match each person to his/her occupation.



CLUES

1. B.J.'s uncle is not a conservationist.
2. Billie uses her mother's store as a headquarters for her election campaign.
3. Paul runs an Olympic training center.
4. The young doctor's aunt who is forty-something, writes puzzle books for children and is proud of her niece, an intern.

	Carol, 50	Rich, 49	Lori, 45	Billie, 26	B.J., 21	Dot, 28	Paul, 22
Governor							
Store Owner							
Environmentalist							
Author							
Engineer							
Doctor							
Olympic Trainer							

"SIT RIGHT DOWN MISS LIZA JANE AND HOLD ON TO THE SHADE"

SCENARIO

One person was always kind and jumped up allowing others to relax! Who said, "Sit right down Miss Liza Jane, and hold on to the shade," and in which southern town did she live? You may need a map and encyclopedia. The southern city choices are — Savannah, Georgia; Starkville, Mississippi; New Orleans, Louisiana; Charleston, South Carolina; and Mobile, Alabama. Helen Len, Carrie Lee, Susan Page, Mary Agnes, and Mildred Dean each lived in one of these towns.

CLUES

1. Mildred Dean lived in an antebellum home 100 miles northeast of Georgia.
2. Mary Agnes, a true southern lady from Starkville, knew every southern saying.
3. Helen Len loved taking a short trip to visit Susan Page and The French Quarter .
4. Carrie Lee lived in a coastal city with famous squares in the downtown district.

	Savannah, Georgia	Starkville, Mississippi	New Orleans, Louisiana	Charleston, South Carolina	Mobile, Alabama
Helen Len					
Carrie Lee					
Susan Page					
Mary Agnes					
Mildred Dean					

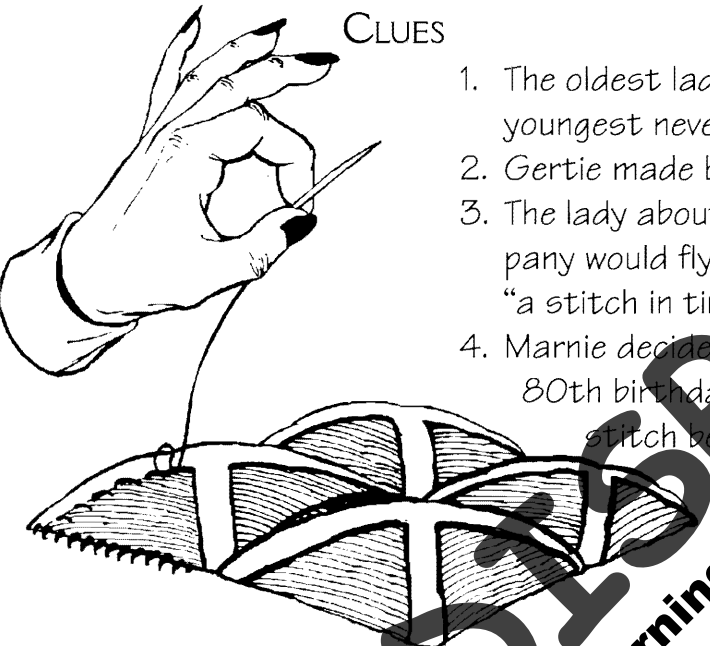
"A STITCH IN TIME SAVES NINE"

SCENARIO

Gertie, Lorraine, Marnie, Laverne, Ina, and Lenora were in the same quilter's club. They had met each week for twenty years. With encouragement from their community, they agreed to open a craft store. Everyone knew their handiwork was made extremely well and would last the test of time. The ladies' only secret was what they knew to be true: "A stitch in time saves nine." Find each ladies' favorite stitch.

CLUES

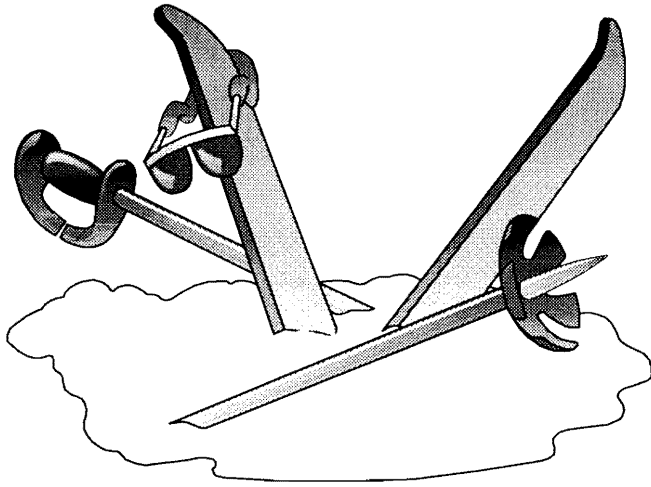
1. The oldest lady favored the basket stitch, and the youngest never chain stitched anything.
2. Gertie made blankets as gifts.
3. The lady about to retire from the telephone company would fly through her stitches as she knew, "a stitch in time saves nine!"
4. Marnie decided to stitch a picture for the lady whose 80th birthday will be Sunday. Marnie chose the cross stitch because it was her friend's favorite.



	Chain stitch	Blanket stitch	Cross stitch	Fly stitch	Basket stitch	Satin stitch
Gertie, 72						
Lorraine, 64						
Marnie, 50						
Laverne, 79						
Ina, 72						
Lenora, 80						

MIX - UP AT THE LODGE

SCENARIO



Three kids were named Sandy, Jim, and Greg. Their parents were Mr. Johnson, Mrs. Dean, and Mr. Dones, whose occupations were realtor, jet pilot, and sports journalist. Each was registered to vacation at the ski lodge. Before their arrival, the lodge's front door blew open and scrambled their paper work. The desk clerk knew he had reserved the popular poolside rooms first. He then set to work to decipher which family members were together, the occupation of each parent, and into which room each had previously been assigned.

	Mr. Dones	Mrs. Dean	Mr. Johnson	Realtor	Jet pilot	Sports Journalist	Room 107	Room 108	Room 215
Sandy									
Jim									
Greg									
Realtor									
Jet pilot									
Sports Journalist									
Room 107									
Room 108									
Room 215									

CLUES

1. Sandy's mom called the week after the jet pilot and three weeks after Mr. Johnson.
2. Jim's room was closest to the pool and adjoined Mr. Johnson's.
3. The sports journalist was the last to call for reservations.
4. The jet pilot was Jim's father.

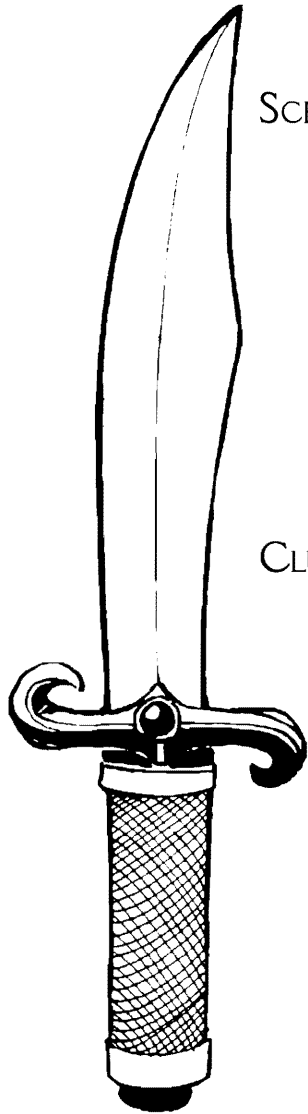
MILITARY MANSION MAYHEM

SCENARIO

A Lt. General, a Major, a Captain, a Lieutenant, a Corporal, (the General's driver), and a young Private in training spent the evening at the General's large mansion serving dignitaries. Before the evening concluded, all six were dead. They were found in different places around the estate and were killed with different weapons — a knife, revolver, candlestick, poison, hose, and spade. Join the police in solving this crime! **Hint: note ranks**

CLUES

1. The enlisted serviceman, fresh out of boot camp, was found shot outside.
2. The corporal was found near a scarecrow.
3. The old general was found on a couch, his evidence of blood, with a book in his hand as if he had just fallen asleep.
4. The lowest ranked officer was stabbed near the front door.
5. Captain Murphy was found in a freshly dug hole on a dirt floor.
6. The major loved antiques.



		Attic	Cellar	Foyer	Garden	Gazebo	Living room	Candlestick	Hose	Knife	Poison	Revolver	Spade
RANK	Officer	Lt. General											
		Major											
		Captain											
		Lieutenant											
	Enlisted	Corporal											
		Private											



BUILDING A HOUSE

SCENARIO

The Wilsons built an Eastern style Cape Cod with a country kitchen.

They employed a carpenter, electrician, plumber, and mason named Cale, Edwards, Masters, and Perkins. Their first names are Carrie, Ed, Mervin, and Polly. Match first and last names to professions. None of the names or professions begin with the same letters.

		Last Names				Profession			
		Cale	Edwards	Masters	Perkins	Carpenter	Electrician	Plumber	Mason
First Names	Ed								
	Carrie								
	Polly								
	Mervin								
Profession	Carpenter								
	Electrician								
	Plumber								
	Mason								

CLUES

1. Polly is not the electrician or carpenter.
2. Cale and Ed completed their work before the mason.
3. Neither Carrie nor Perkins is the electrician.
4. Masters is Cale's sister.

EXPRESSION IMPRESSIONS

SCENARIO

Out of these eight kids — Cheryl, Katie, Kyle, Rick, Cassie, Chloe, Chris, and Mary, find out who —

1. revealed a secret and let the cat out of the bag?
2. let some information go in one ear and out the other?
3. started trouble she couldn't stop, thus, opened a can of worms?
4. was grumpy and got up on the wrong side of the bed?
5. was so happy he thought he was sitting on top of the world?
6. was nervous and felt butterflies in her stomach?
7. shed crocodile tears in sorrow?
8. was found in a pickle — in trouble?



CLUES

1. Cassie didn't tell Chris about his surprise party.
2. Kyle, who rarely listened, never heard the party was a surprise.
3. "Go ahead," screamed moody Mary to a boy, "Cry crocodile tears — you shouldn't have ruined the surprise!"
4. Chloe, who always told the secret, said, "Katie, you are really in a pickle since you forgot to buy a present."
5. Cassie was overly excited about the party.

	Let the cat out of the bag	In one ear and out the other	Open a can of worms	To get up on the wrong side of the bed	I'm sitting on top of the world	Butterflies in the stomach	Crocodile tears	In a pickle
Cheryl								
Katie								
Kyle								
Cassie								
Rick								
Chloe								
Chris								
Mary								



CLUES

2. The Chinese Pug's friend, who had wiry hair, came in 3rd.
3. The smooth-haired sausage dog has handsome reddish brown eyes.
4. The terriers are 10 inches tall, one wiry-haired and one shaggy.
5. The hound dog's eyes are the same light color as the 2nd place winner, the Cairns', whose eyes can also be brown.
6. The heaviest terrier is not in the movies but loves to dance on his hind legs to the tune, "You take the high road, and I'll take the low road, and I'll be in Scotland before ye."
7. Everyone roots for an underdog (pun) with beautiful dark eyes and the widest weight range.
8. The Dachshund placed 4th, three places under the thick-haired twenty pound Beagle.

48

WORKAHOLICS

SCENARIO

Three men — Walt, Kirk, and Noel, each have two occupations from among the following — Engineer, Dermatologist, Professor, Artist, Novelist, and Judge. No two men have the same occupation. Match the occupations to the men.



CLUES

1. The dermatologist had lunch with the professor.
2. The professor and novelist went fishing with Walt.
3. The artist is related to the engineer.
4. The dermatologist hired the artist to paint a family portrait.
5. Kirk lives next door to the novelist.
6. Noel beat Kirk and the artist at racquetball.

	Engineer	Dermatologist	Professor	Artist	Novelist	Judge
Walt						
Kirk						
Noel						

TEEN - AGE

SCENARIO

For a contest, this very puzzle was sold for a dollar. The fastest teen to complete it correctly would receive \$50 to spend at the local bookstore. See if you can match the teens' ages to the first names — Brooklyn, Matthew, Janel, Andrew, and Jessen and to the last names — Price, Young, Pierce, Banks, and Rodgers.

	Price	Young	Pierce	Banks	Rodgers	13	14	15	16	17
Brooklyn										
Matthew										
Janel										
Andrew										
Jessen										
13										
14										
15										
16										
17										

CLUES

- Jessen is younger than Andrew but older than Janel and Price.
- Young is the youngest, and a girl.
- Banks is male, older than either of the other boys.
- Matthew is younger than Jessen.
- Pierce, 15, is younger than Banks.
- One person is named for a famous New York bridge and the "Jolly" Rodger for her disposition.

LADY INVENTORS

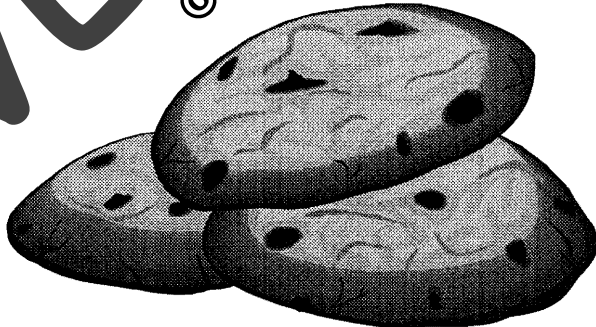
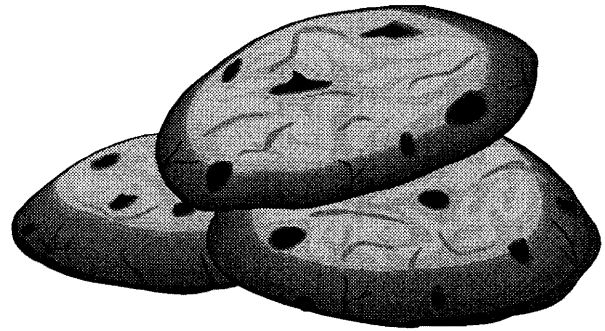
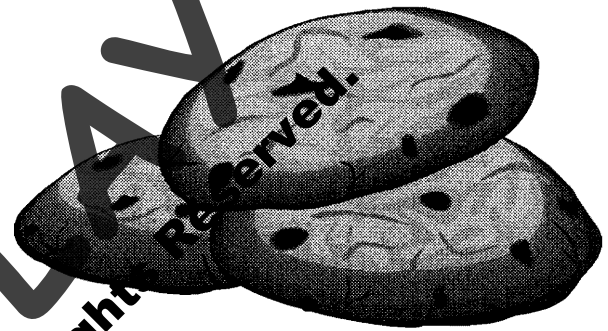
SCENARIO

These lady inventors all have made their marks on our lives in history. Bette Graham, Melitta Bentz, Marion Donovan, Jane Wells, Fannie Farmer, and Ruth Wakefield invented Scientifically Written Recipes, a Baby Jumper, Coffee Filters, Chocolate Chip Cookies, Disposable Diapers, and Liquid Paper. They invented in their hometowns of Chicago, Illinois; Whitman, Massachusetts; Dallas, Texas; New York, New York; Boston, Massachusetts; and Dresden, Germany, during the years 1872, 1896, 1909, 1933, 1952, and 1957. Match each inventor, town, invention, and year.

* Historical Anecdote

To save time, the owner of the Toll House Inn decided not to melt chocolate squares for the recipe. Instead, she took a semi-sweet candy, broke it into pieces and added it to the mix. She assumed the chocolate chips would melt in the oven heat. Surprisingly, the chocolate bits pretty much kept their shape in the finished cookie. This "mistake" created the Toll House Cookie!

Source: Mothers of Invention
by Vore and Ptacek
Quill William Morrow
New York, New York
1967



LADY INVENTORS . . .

CLUES

1. Fannie could not continue to add a pinch of this and a pinch of that to her ingredients when cooking.
2. Bette "painted over" typing errors and patented her product in 1957 in the South.
3. Marion and Jane were "Necessity is the mother of invention" mothers who lived in New York and Chicago.
4. Chocolate chip cookies were invented in 1933 in Massachusetts at the Toll House Inn by mistake!*
5. Melitta used a piece of blotting paper from her son's notebook in 1909 for her German invention.
6. Jane did not make anything disposable but her patent was in 1872 in the Midwest.
7. Marion is about the same age as Bette.
8. When you think Whitman®, think chocolate!

	Scientifically written recipes	Baby jumper	Coffee filters	Chocolate chip cookies	Disposable diapers	Liquid paper
Bette						
Graham						
Melitta						
Bentz						
Marion						
Donovan						
Jane						
Wells						
Fannie						
Farmer						
Ruth						
Wakefield						
Chicago,						
Illinois						
Dresden,						
Germany						
Whitman,						
Massachusetts						
Boston,						
Massachusetts						
New York,						
New York						
Dallas,						
Texas						
1872						
1896						
1909						
1933						
1952						
1957						

THE PSYCHEDELIC '60'S SLANG

SCENARIO

The 1960's encompassed a time of turmoil among the youth of that day. They created their own way to communicate with each other. It built onto the '50's slang. Cross match the 1960's slang words to their meanings and to the original word meanings.



CLUES

1. To dig a garden, one uses a shovel to make grooves of hills and valleys because hippies, the flower children of the '60's, felt fine and groovy working together.
2. They would make the scene which was once a rude thing to do, but in the '60's, meant they arrived at the party.
3. The kids did not invite their bosses from work!
4. They everyone began to boogie to the music — even the flower children with big hips.
5. After the dance, everyone boogied home.
6. The party had been “far-out” which was an expression of delight, but to adults, meant far away.
7. To “dig it” was to like it and if “boss” you liked it better so the party was a grand success!

THE PSYCHEDELIC
'60'S SLANG

'60'S SLANG

		'60'S SLANG							
		Dig it	Groovy	Far-out	Hang-up	Make the scene	Boogie	Hippies	Boss
ACTUAL WORD MEANING	Furrowed with channels and hollows								
	To dance								
	A rude thing to do								
	Distant								
	To do to a phone								
	Big in the hips								
	To shovel								
	A person you work for								
'60'S WORD MEANING	A problem								
	To go / leave								
	Flower children								
	To really like it								
	Feeling great/wonderful								
	To like it								
	A happy expression								
	One has arrived								

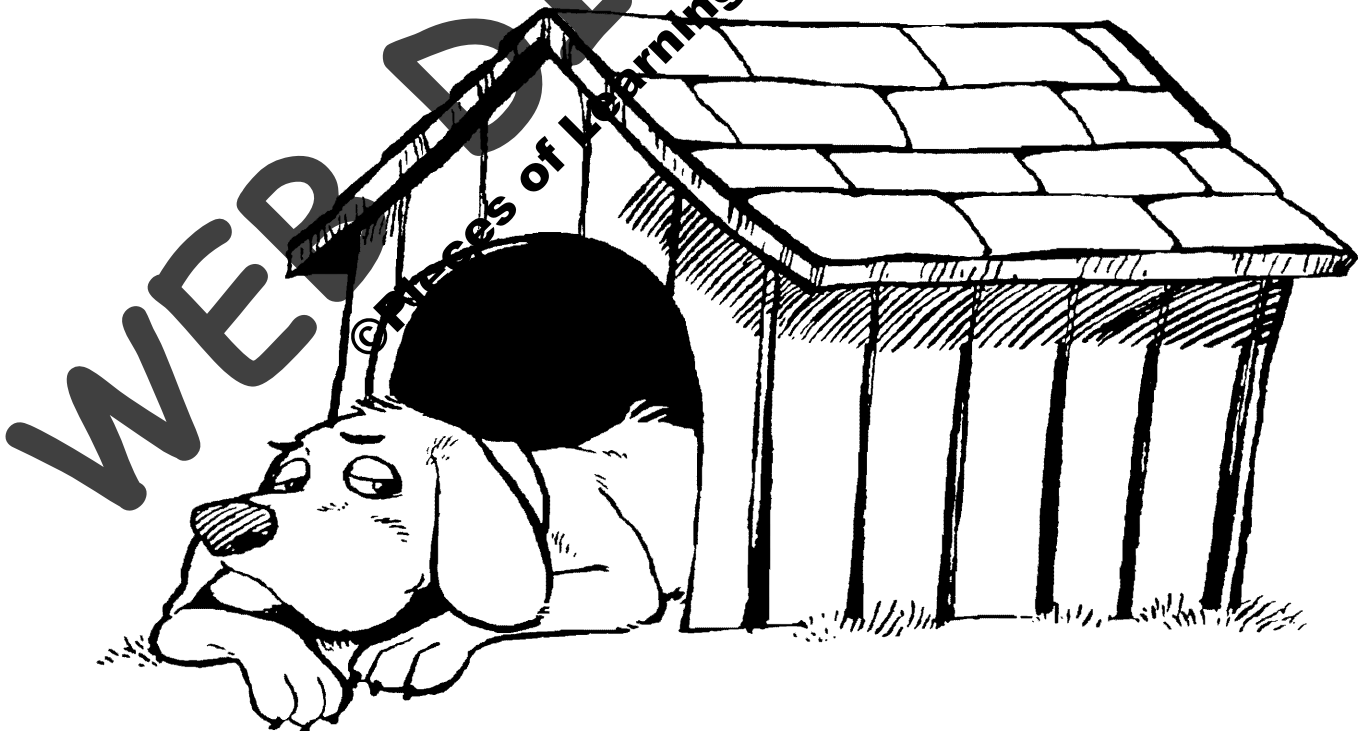
IT'S A DOG'S LIFE

SCENARIO

Match each of the eleven people named Wade, Megan, Emmitt, Levi, Quan, Renee, Jill, Cynthia, Carrie, Sarah, and Adam to the doggie sayings — dog cart, doggery, going to the dogs, dog days, dogear, dog tired, dog fennel, dogma, dogwatch, dog-eat-dog, and doggy. Note: (Use a dictionary for the saying's meanings if necessary.)

CLUES

1. Renee hates hot July days as does Grandpa Emmitt who established that opinion long ago.
2. Cynthia says Levi is a worthless fellow.
3. "Too bad you're too exhausted to go hunting today I'm going anyhow!" snapped Quan to Megan's boyfriend.
4. Jill plans to ride in a two-wheeled horse-drawn vehicle during the July and August festival.
5. Neither Quan nor Renee believe in a dog-eat-dog world.
6. While Adam marks his place in a book Carrie works the night shift, and Sarah sips her chamomile herb tea.
7. Megan always acts removed from the group much like a motherless calf in a range yard.



IT'S A
DOG'S
LIFE . . .

	Dog Cart	Doggery	Going to the dogs	Dog Days	Dogear	Dog Tired	Dog Fennel	Dogma	Dogwatch	Dog-Eat-Dog	Dogy
Wade											
Megan											
Emmit											
Levi											
Quan											
Renee											
Jill											
Cynthia											
Carrie											
Sarah											
Adam											

Links to Logic Answers

Darts (19)

Pam, 3rd
Sam, 1st
Cam, 2nd

Future Homes (20)

Fron, Sunshine
Sil, Garnet
Gire, Fuchsia

Futuristic Tele-inventions (21)

Remo, Tele-Card
Zan, Tele-T.V.
Lorn, Tele-Phone

Future Toys (22)

Rem, Hi-Fly Ball
Nori, Tele-Game
Hep, Hover Board
Kern, Robot-Friend

Favorite Colors (23)

Rory, Orange
Bruce, Red
Patricia, Blue
Meg, Purple

Spring Soccer (24)

Scott, 3
Adam, 2
Dave, 8
Wade, 5

Rollerblade Race (25)

David, Bright Blue, 4th
Kenny, Neon Green, 1st
Rick, Vibrant Yellow, 3rd
Mary, Hot Pink, 2nd

"Get Your Ducks in a Row" (26)

Maralie, 7:00
Amanda, 7:30
Emily, 7:45
Lindsay, 7:15

Quilter's Choice (27)

Allie May, 2nd, Snail's Trail
Margaret Ann, 3rd, Star of Bluegrass
Helen Pearl, 1st, Lazy Daisy

Plain Palace Players (28)

George, Fool
Antoinette, Maid
Randolph, Baron
Diana, Cook
Henry, Minstrel

Double Trouble (29)

Born, Kirk, born 2nd, 3:23
Bill, Finn, born 2nd, 3:20
Brittany, Kirk, born 1st, 3:21
Brett, Finn, born 1st, 3:16

The Pickle & The Onion Twins (30)

The Twins: Ray and Merrill
Ray, Pickles
Merrill, Onions
Amy, Ketchup
Marion, Tomatoes
Charlotte, Lettuce
Helen, Mustard

States' Plates (31)

John, Hawkeye, "Farmer," Iowa
Kristen, Volunteer, "Ya'll," Tennessee
Neil, Pacific Wonderland, "Timber," Oregon
Karen, Golden, "Surfing," California

Links to Logic Answers

Marsh Critters (32)

Tyler, Mud, 8 oz., Tybee
Courtney, Horseshoe, 14 oz., James
Miles, Fiddler, 2 oz., Hilton Head
DeAnne, Blue, 6 oz., Hunting Island

Boxwood Race (33)

Jeannie, Waves, 3rd
Patrick, Solid, 2nd
Ryan, Zigzag, 1st
Ruth, Dots, 5th
Don, Stripes, 4th

School Spirit Days (34)

Jeff, 150, Team
Wes, 135, Nerd
John, 280, Backward
Melinda, 125, Pajama
Hill, 50, Hat

What's Your Hobby? (35)

Anne, Quilter
Cheryl, Novelist
Ginny, Bridge Player
Nancy, Florist
Jane, Jeweler

Two in Each Country (36)

Dan and Tom, U.S.
Tammy and Nancy, Australia
Mark and Steve, France
Catie and Isabelle, England

Bow-Wow Lane (37)

Dalmatian, 4D
Cairn, 1A
Scottish, 1A
Retriever, 2B
Poodle, 3C
Dachshund, 5E
Malamute, 6F

Pair the Pals (38)

Katrina, Andrea
Earl, Terri
Julie, Alex
Hans, Scott
Betty, Ikuko
Kelly, Marty

Green Thumb Shop (39)

Mrs. Mason, Plant & Vine Co.
Miss Johnson, Plush & Green Co.
Ms. Stevenson, Floral Flora Co.
Mr. Carlson, Green Plants Co.

Apartment People and Pets (40)

Jones, Apt. 101, family of 4, 4 cats
Herman, Apt. 104, family of 1, 1 cat
Smith, Apt. 103, family of 3, 3 cats
Martinez, Apt. 105, family of 5, 5 cats
Van Loo, Apt. 102, family of 2, 2 cats

The Job World (41)

Governor, Billie
Store Owner, Carol
Environmentalist, B.J.
Author, Lori
Engineer, Rich
Doctor, Dot
Olympic Trainer, Paul

"Sit Right Down Miss Liza Jane and Hold on to the Shade" (42)

Helen Len, Alabama
Carrie Lee, Georgia
Susan Page, Louisiana
Mary Agnes, Mississippi
Mildred Dean, South Carolina
Mary Agnes said it in Starkville, Mississippi

Links to Logic Answers

"A Stitch in Time Saves Nine" (43)

Gertie, Blanket Stitch
Lorraine, Fly Stitch
Marnie, Satin Stitch
Laverne, Cross Stitch
Ina, Chain Stitch
Lenora, Basket Stitch

Mix-Up at the Lodge (44)

Sandy, Mrs. Dean, Sports Journalist, Rm.215
Jim, Mr. Dones, Jet Pilot, Rm. 107
Greg, Mr. Johnson, Realtor, Rm.108

Military Mansion Mayhem (45)

Lt. General, Living room, Poison
Major, Attic, Candlestick
Captain, Cellar, Spade
Lieutenant, Foyer, Knife
Corporal, Garden, Hose
Rivate, Gazebo, Revolver

Building a House (46)

Carrie, Masters, Plumber
Polly, Edwards, Mason
Mervin, Cale, Electrician
Ed, Perkins, Carpenter

Expression Impressions (47)

Chloe, "Let the cat out of the bag"
Rick, "Cry crocodile tears"
Cheryl, "Open a can of worms"
Katie, "In a pickle"
Kyle, "In one ear and out the other"
Cassie, "Butterflies in the stomach"
Chris, "I'm sitting on top of the world"
Mary, "To get up on the wrong side of the bed"

Dog Show Today (48)

- Cairn; 10" / 14 #'s; Shaggy; Brown or Hazel; Toto; 2nd
- Dachshund; 9" / 10-12#'s; Short, Smooth, Reddish-brown; Sausage Dog; 4th
- Scottish; 10" / 18-20 #'s; Wiry; Dark Brown or Black; Scotty; 3rd
- Beagle; 13"-15" / 20 #'s; Short, Hard Dense; Hazel or Dark; Hound; 1st
- Pug; 11" / 14-18 #'s; Short, Soft, Glossy; Dark; Chinese; 5th

Workaholics (49)

Walt, Artist and Judge
Kirk, Engineer and Professor
Noel, Dermatologist and Novelist

Teen-ages (50)

Brooklyn Rodgers, 17
Matthew Price, 14
Daniel Young, 13
Andrew Banks, 16
Jessen Pierce, 15

Lady Inventors (51)

- Bette Graham; Liquid Paper®; Dallas, Texas, 1957
- Melitta Bentz; Coffee Filters; Dresden, Germany; 1909
- Marion Donovan; Disposable Diapers; New York, New York; 1952
- Jane Wells; Baby Jumper; Chicago, Illinois; 1872
- Fannie Farmer; Scientifically Written Recipes; Boston, Massachusetts; 1896
- Ruth Wakefield; Chocolate Chip Cookies; Whitman, Massachusetts; 1933

Links to Logic Answers

The Psychedelic 60's Slang (53)

Dig it, to shovel, to like it
Groovy, furrowed with channels and hollows,
feeling great/wonderful
Far-out, distant, a happy expression
Hang-up, to do to a phone, a problem
Make the scene, a rude thing to do, one has
arrived
Boogie, a dance, to go/leave
Hippies, big in the hips, flower children
Boss, a person you work for, to really like it

It's a Dog's Life (55)

Wade, Dog tired
Meagan, Dogy
Emmit, Dogma
Levi, Going to the dogs
Quan, Doggery
Renee, Dog days
Jill, Dog cart
Cynthia, Dog-eat-dog
Carrie, Dogwatch
Sarah, Dog fennel
Adam, Dogear

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The Games of Frogmore County

DEDUCTIVE REASONING PUZZLES

process of Elimination

CREATIVE/CRITICAL THINKING

Logical Thinking

Thinking Divergent

Solution Finding

STRATEGY FINDING

Practice: "Genius is 1% inspiration
and 99% perspiration."

by Thomas Edison

(Edison means do not give up on the puzzles! You can do it!)

The Games of Frogmore County

INTRODUCTION:

The games of Frogmore County are a manipulative approach to logical thinking. The games provide a step-by-step approach to logical problem solving.

Students choose different methods of learning:

1. visual
2. auditory
3. verbal
4. manipulative

Frogmore County puzzles utilize all four learning styles. A player logically moves game pieces according to the clues given. He/She can visually see the progress. Alone, one can talk to himself, or with a partner discuss, during the problem solving process.

Each game offers exercises in deductive reasoning. The process involved in reasoning becomes almost more important than the solution to each game.

HOW TO PLAY HINTS:

1. Categorize the playing pieces.
2. Only place a piece on the game board if you are sure it fits there.
3. Make a "FITS TOGETHER" and "DO NOT FIT TOGETHER" card. Use the "FITS TOGETHER" card for placing pieces together that fit — but where they fit is yet undetermined.
4. Use the "DO NOT FIT TOGETHER" card for pieces that do not go together ever, until you logically conclude their position on the game board.

Fits
together

Do not
fit
together

RIGOR AND RELEVANCY:

Problem solving skills are essential as a life skill. Deductive reasoning is the most familiar form and, therefore, the place to begin. It is the process that becomes as important as the discovery of the solution.

OBJECTIVE:

The objective is to use reasoning — deductive thinking techniques — to move from a premise to a logical conclusion by playing a problem solving game.

STORING THE GAME AND GAME PIECES:

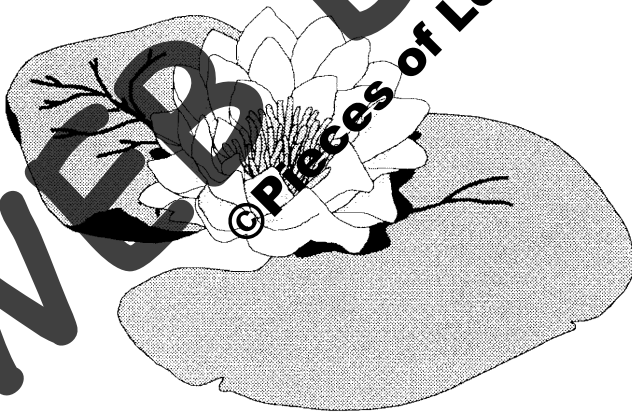
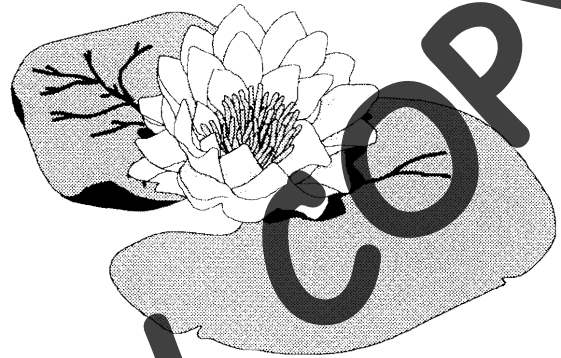
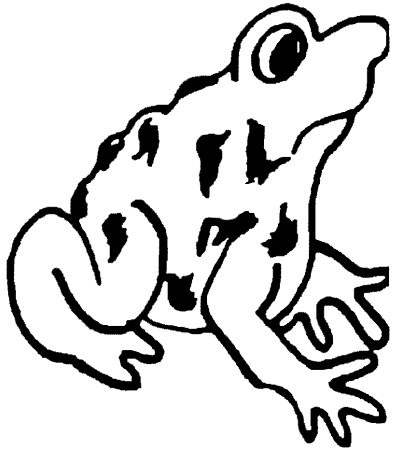
Cut out and laminate each game piece and senario/clues card.

Laminate the game board.

Use a pocket folder to store each game — the board, the game pieces, and the senario/clues card.

On the following pages is cover art for each game. Have the students color the illustration and mount the cover art to the front of each game folder.

Frogmore County Contest



FROGMORE COUNTY CONTEST





SCENARIO

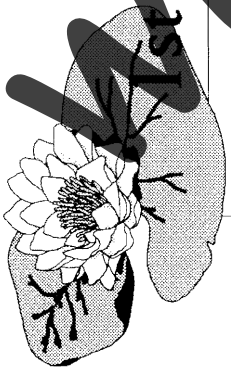
Five children, Fred, Brett, Sarah, Perry, and Nora entered their frogs in the annual frog contest. The entrants' frogs were named Macho Wart, Pounder, Croaker, Vector, and Felicia. Each grew up in different marshy areas: Broad River Marsh, Fripp Walking Bridge, North Beach Marsh, Parris Island Marsh, and Sea Spray Marsh. No owner's name begins with the same letter as his home. Use the clues to decide each frog's owner, the area of the marsh in which he lives, and how he placed in the contest.

CLUES

1. Macho Wart placed 4th, two places behind Brett's beach frog.
 2. Parris Island was Fred's favorite place to play with this frog.
 3. Nora had warts from Perry's frog.
 4. Croaker was mediocre and only jumped when sung to.
 5. Nora's walking frog weighed a lot but managed to beat them all — especially Felicia who lived on a French-sounding island.
 6. Sarah loved the music on the river.
-

Frogmore County Contest

 <p>© Pieces of Learning Croaker</p>	 <p>Felicia</p>	 <p>Macho Wart</p>	 <p>Vector</p>
Nora	Brett	Perry	Fred
<p>Fripp Walking Bridge</p>	<p>North Beach Marsh</p>	<p>Broad River Marsh</p>	<p>Parris Island Marsh</p>



Frogmore County Contest

5th

4th

3rd

2nd

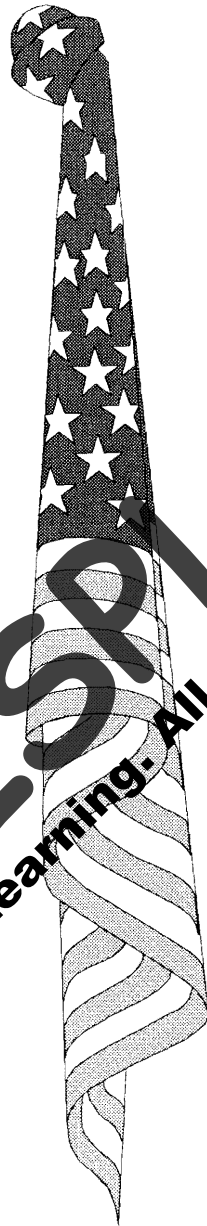
FROG

HOME

COPY

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UNCLE SAM STATUES



UNCLE SAM STATUES

SCENARIO

Frogmore County is a melting pot of people who moved there from other states. Most everyone is patriotic. Some of its citizens even collect Uncle Sam Statues. Read the clues to discover who owns which statue, from which state they hail, how much their statue originally cost, and whether they owned statue A, B, C, or D.

CLUES

1. Neither Chris nor Melinda like slim Sams.
 2. Holly told Chris, from the East, that he had expensive taste.
 3. Melinda paid \$3.00 less for her Southern Sam than Andy, who was from the Midwest.
 4. Holly comes from the Mile High State where she collects American flags.
-

UNCLE SAM STATUES

A 	B 	C 	D 
Chris	Andy	Melinda	Holly
  Connecticut	  Michigan	  Colorado	  Oregon
\$12.50	\$22.00	\$35.00	\$25.00

UNCLE SAM STATUES

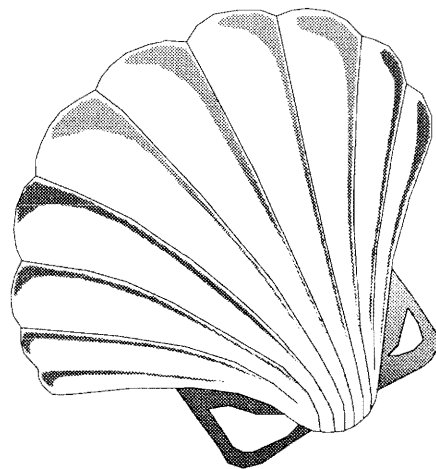
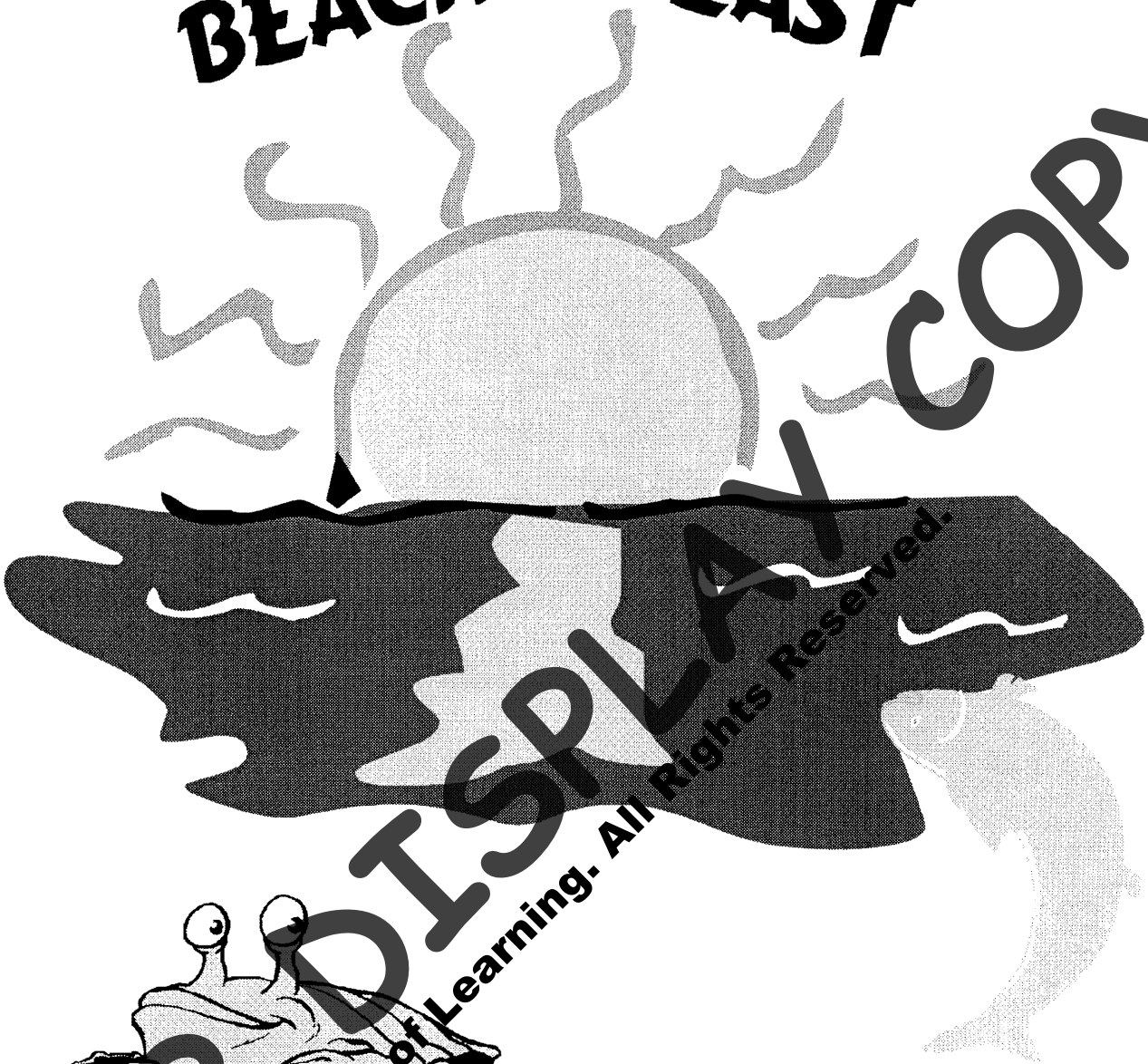


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Sam	Person	State	Price

BEACH FEAST



BEACH FEAST

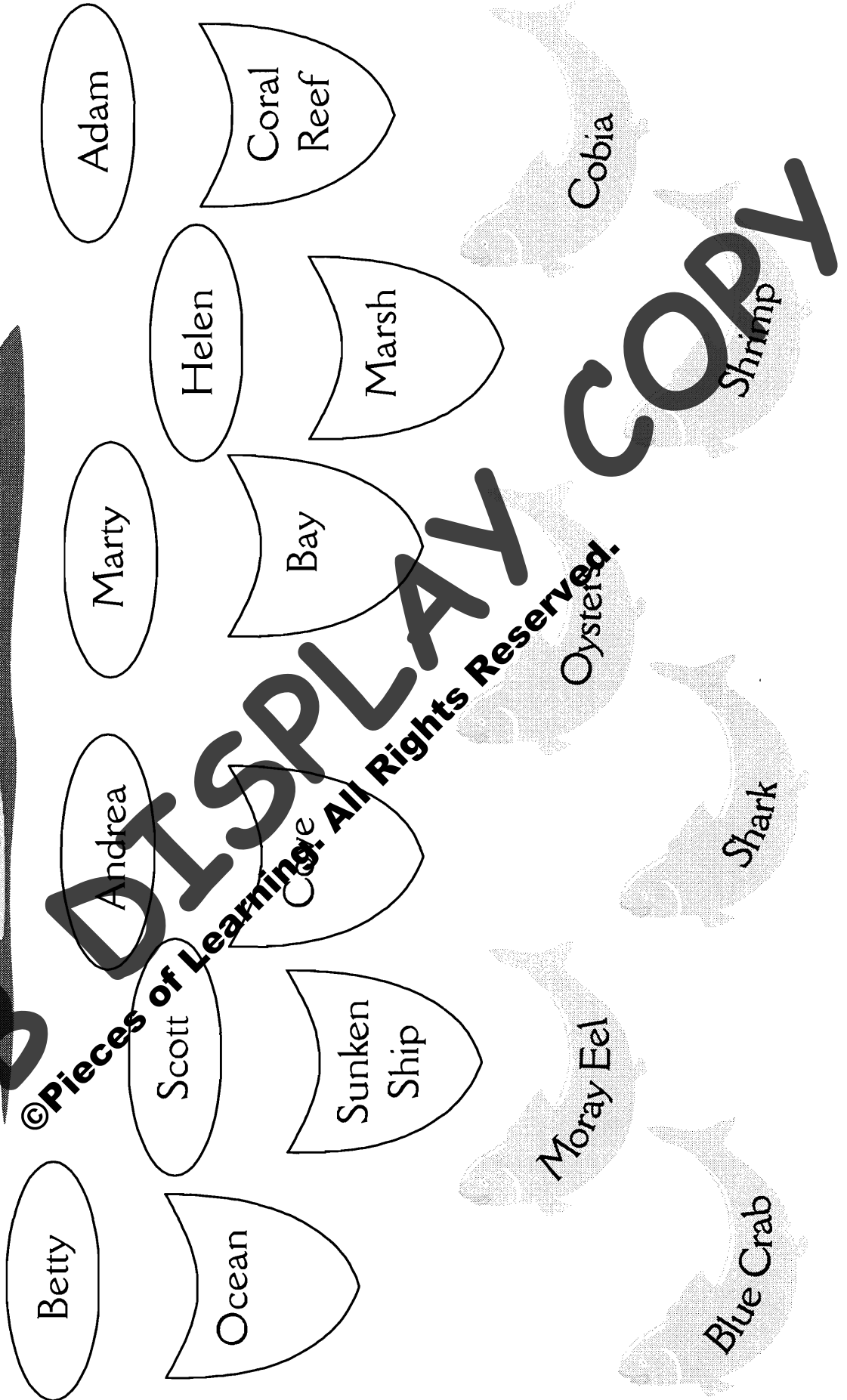
SCENARIO

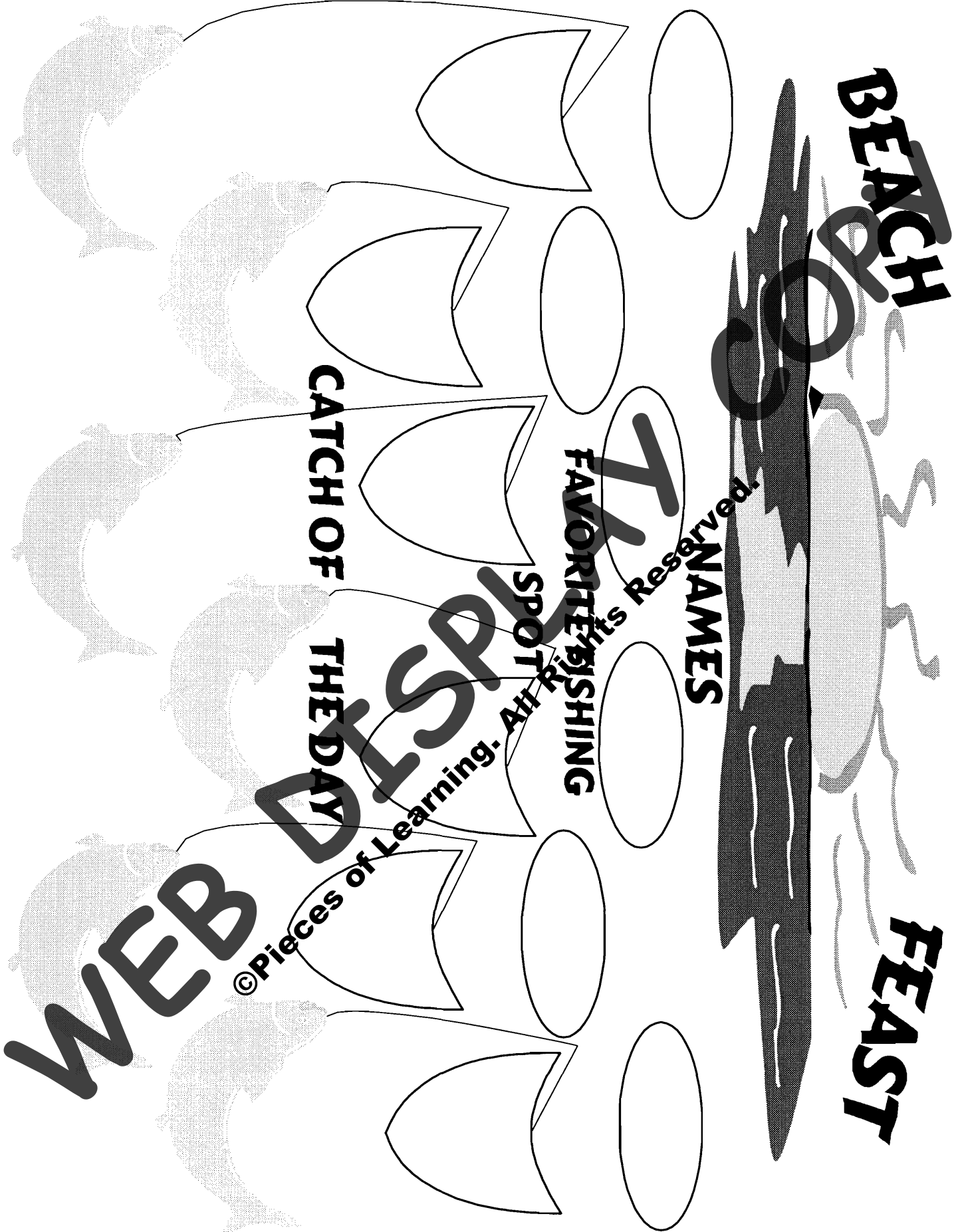
Six teens — Betty, Scott, Andrea, Marty, Helen, and Adam were fishing for his/her catch. It was a beautiful warm sunny summery day, absolutely perfect for the planned cookout on the beach at sundown. Whoever showed up without a dish, or rather, fish, would surely be razzed! Everyone brought something! Who caught which seafood and where? Which female's catch was most uncommon to eat, and therefore, razzed?

CLUES

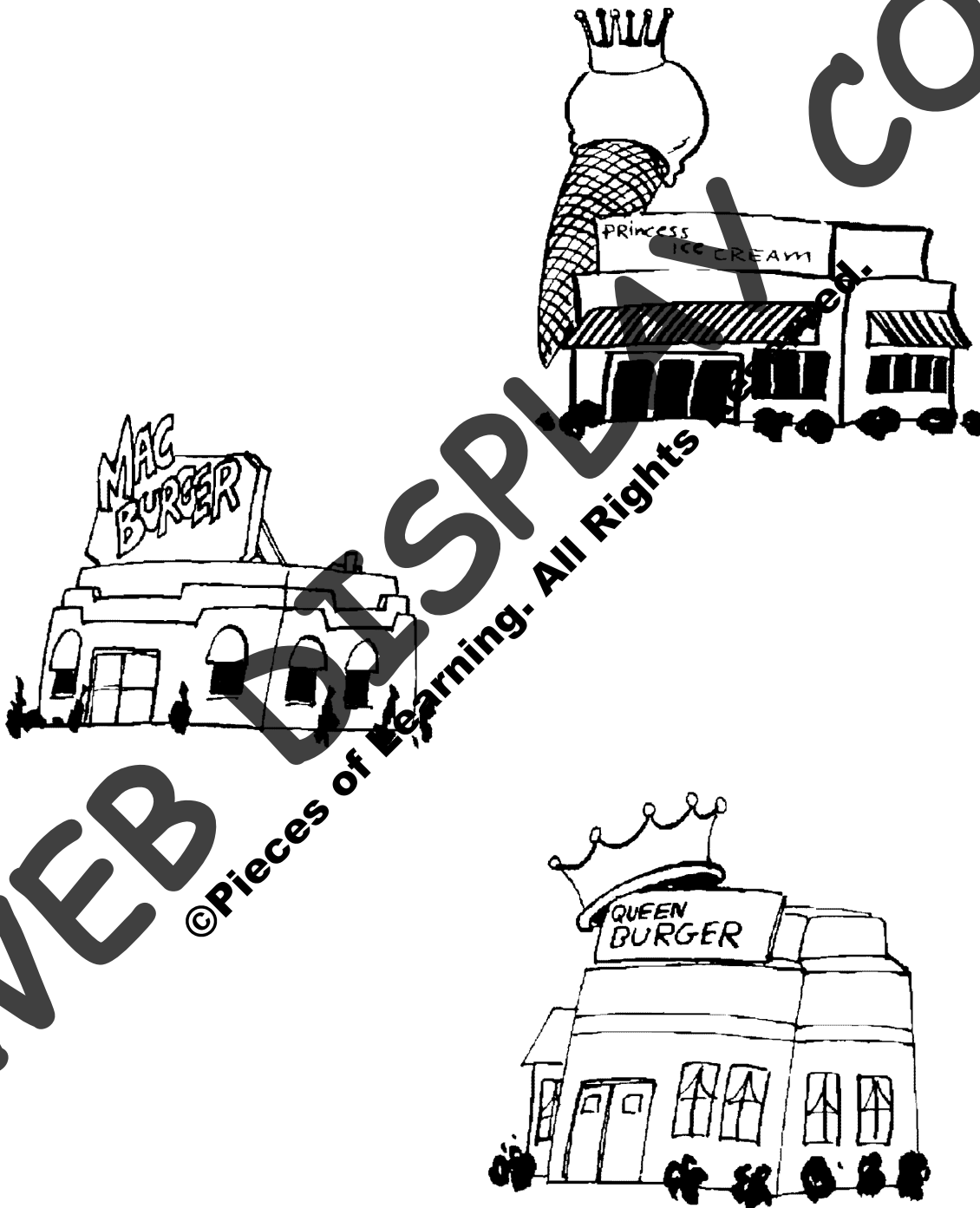
1. Betty's catch walked sideways under sandy bridges in muddy spartina grass.
 2. Scott loved fishing with 80 pound lines!
 3. Andrea enjoyed colorful fish and shells while snorkeling.
 4. Cut feet never stopped Michael from bay fishing.
 5. Helen net-fished in quiet waters.
 6. Adam loved scuba diving adventures and the movie "Jaws."
-

BEACH FEAST





Franchise



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FRANCHISE

SCENARIO

Ben, Bob, Bill, Bonnie, Barry, and Bianca each delighted in purchasing a food chain franchise of his/her choice. The franchise names were Queen Burger, Ar-Cees, MacDucks, Easyees, Mindy's and Princess Ice Cream.

Bob, recently from England, was thrilled to set up an American dream food chain as property of the crown. Each person had specific reasons for choosing his/her fast food chain. Who owned which franchise and at what purchasing price?

CLUES

1. Bob decided he could pay a little more than the cheapest franchise, Princess Ice Cream.
 2. Ben had \$135,000, but had to borrow a small balance to open his franchise.
 3. Bill's uncle, the famous Artie C. Crowder, left him \$130,000, more than enough to start a business!
 4. Easyee's cost \$25,000 more than a medium priced MacDucks.
 5. Bonnie named her franchise after her best friend.
 6. Bianca loved her seasonal summer business.
-

Franchise

\$100,000	\$110,000	\$125,000	
\$150,000	\$175,000	\$200,000	
			Bill
			Bob
			Ren
			Bonnie
			Barry
			Bianca



§
§

Franchise



Franchise

Franchise

Franchise

Name _____

§
§

Name



Franchise

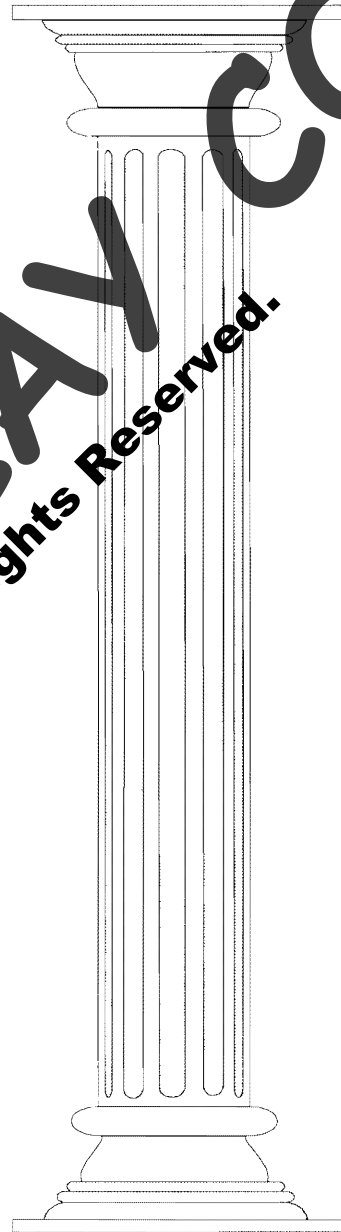
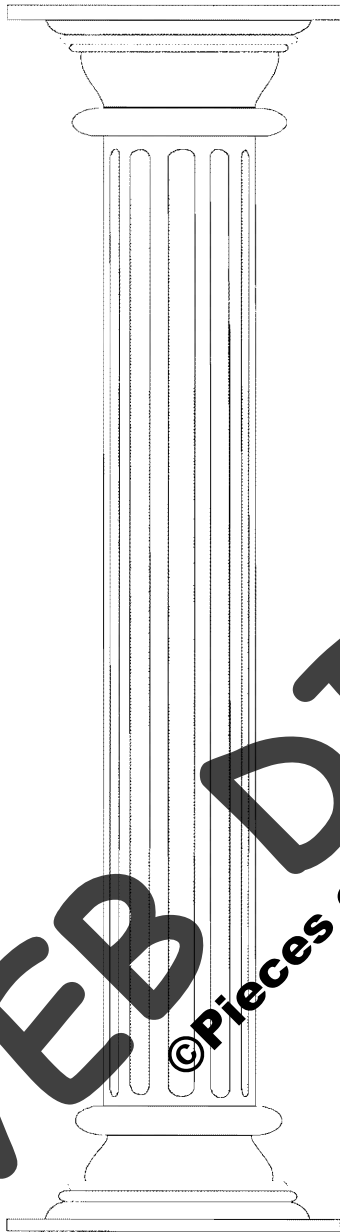
Name

Franchise

Name

§
§

Forum



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FORUM

SCENARIO

The Greeks were known to be the first orators. Each Greek family named Socrates, Spartan, Ionian, Aristotle, and Athenian, learned the value of public speaking. They practiced the art of pantomime (acting without words), bluff (a way to prove your point without proper facts), persuasion (an ability to change people's minds), informing (describing, telling facts), and oratory (a complete and effective speech), to gain back the land they lost during the war.

Each family planned to regain his land by proving his/her ownership in his speech. One family spoke at Thesis Hills and another at the Parthenon. The other three spoke at Oration Meadows, on Sicilian Mountain, or Podium Pond.

Match each family to the type of speech given at the proper location.

CLUES

1. The Athenian family had the ability to change people's minds, and won the right to their land at the Pond.
2. Two families beginning with same letter, each proved his/her point and gained land ownership: one by telling specific facts and the other without proper facts.
3. The most effective speech was given on the mountain by the Ionians while the least honest was on the hill.
4. Two families with names beginning the same gave their speeches at locations each beginning with the same letter.
5. Regardless of what the name of their location would imply, the Spartans did not give an oratorical speech.

Forum

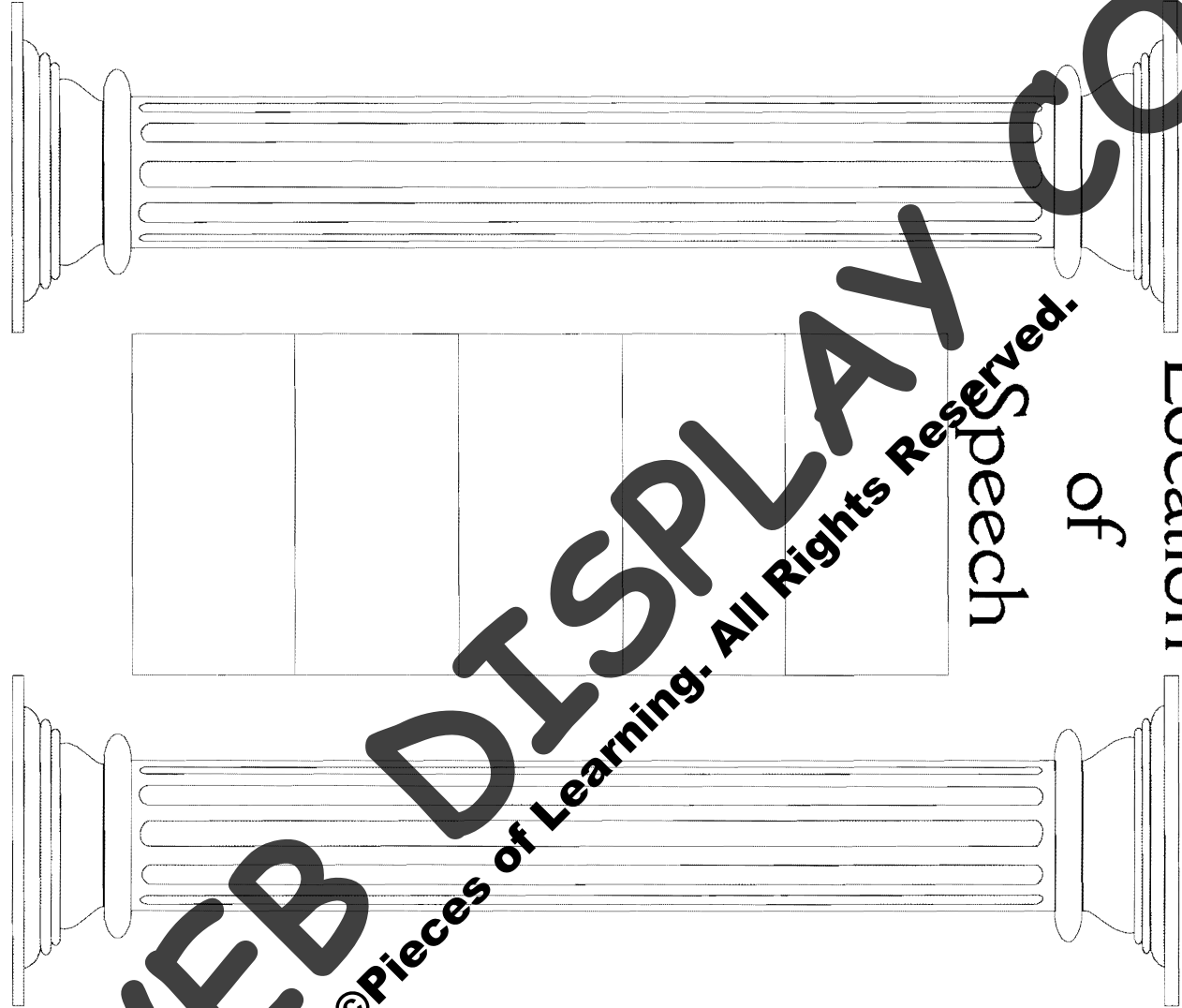
Socrates Family	Oration Meadows	<i>Pantomime</i>
Aristotle Family	Parthanon	<i>Inform</i>
Athenian Family	Thesis Hill	<i>Persuade</i>
Ionian Family	Sicillian Mountain	<i>Oratory</i>
Spartan Family	Podium Pond	<i>Bluff</i>

Forum

Family
Names

Location
of
Speech

Type
of
Speech



The Picnic Basket



THE PICNIC BASKET

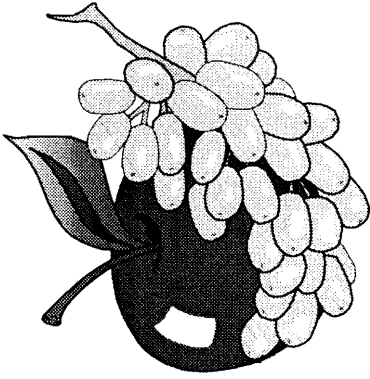
SCENARIO

The Picnic Basket was a favorite kid hang-out. Each week during summer, six friends would meet at the Basket for their favorite snack. Match each main dish, fruit, drink, and dessert to each person. See which person chose what you would have chosen to eat.

CLUES

1. Leah was the only girl who enjoyed carbonated drinks.
 2. Except for dessert, two with the same first initial ate the same foods.
 3. Sam had what vegetarian Linda had, including dessert, except he substituted cola for juice.
 4. Kyle dined on Sam's menu.
 5. Leah had a full meal from hamburger to lemon slush like Rachel but did not have grapes because they reminded her of eye balls.
 6. No one liked chocolate.
 7. Five-sixths of the kids believed the old adage, "An apple a day keeps the doctor away."
-

The Picnic Basket

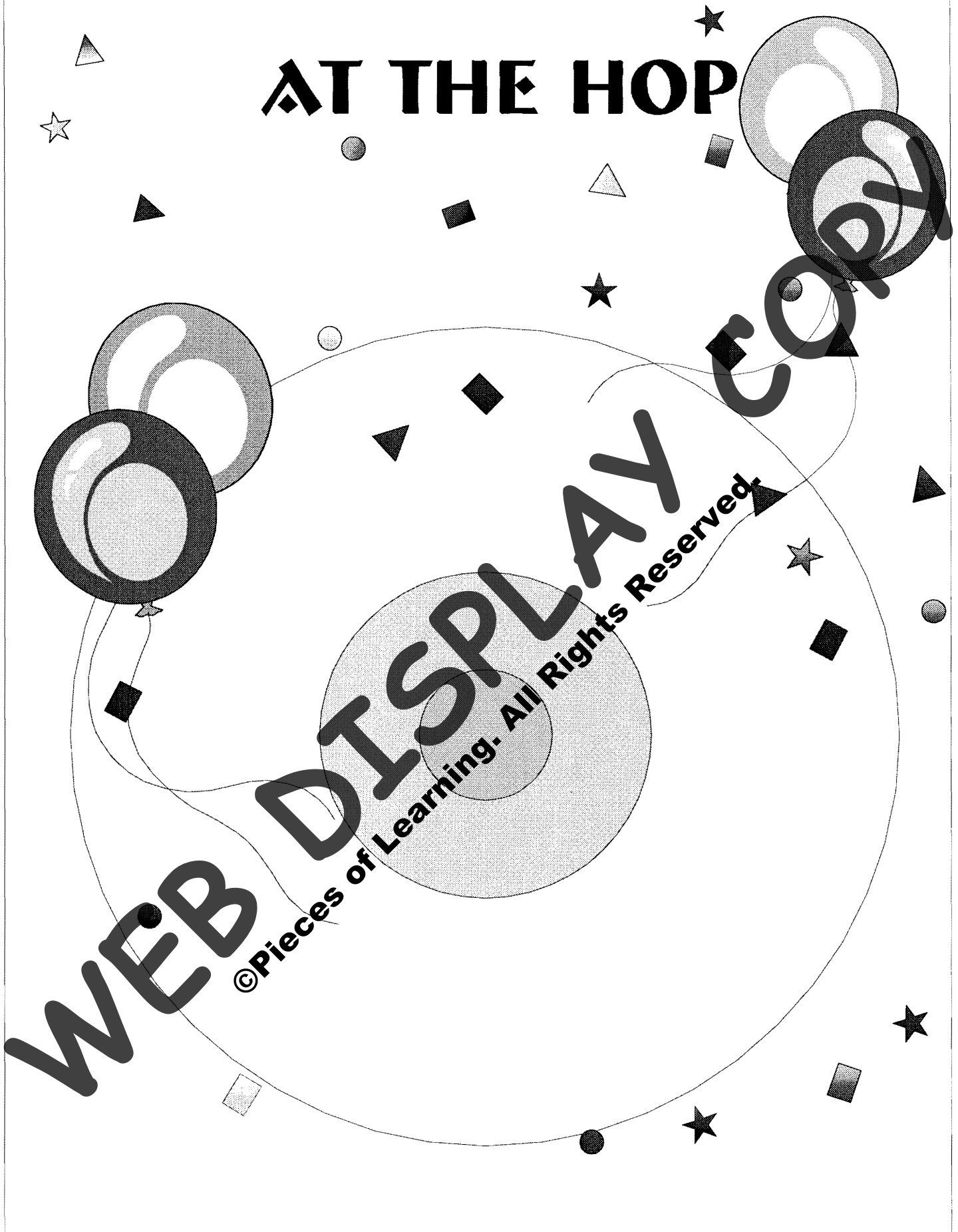


Hamburger	Grapes	Juice	Lemon slush
Hamburger	Apple	Juice	Lemon slush
Hamburger	Apple	Juice	Lemon slush
Hamburger	Apple	Cola	Lemon slush
Pizza	Apple	Cola	Lemon slush
Pizza	Apple	Cola	Lemon slush
Pizza	Apple	Cola	Lemon slush
Pizza	Apple	Cola	None

7. The Picnic Basket

[illegible]

AT THE HOP



AT THE HOP

SCENARIO

The 1950's teens, Phil, Paul, Rich, Libby, Joanna, and Jennifer loved their faddish clothing, bob-sha-bop dances, slang words and sayings, spiffy cars, and 45 rpm records. Match each of the above according to the clues and see how well you perform at the hop.

CLUES

1. Because he was too cheap to buy gas, he drove his girlfriend's 409, parked next to Rich, (who was in a GTO, and was waiting for the doors to open to his favorite dance, Pink Shoe Laces), and shouted, "Man-oh-man, what a great day for driving!"
2. Libby's hobby was bike riding, and her girlfriend thought vogs were neat.
3. The Coral Label was a favorite at the "Under the Sea" dance.
4. Jennifer, who liked love songs and believed there was life on Mars, attended a dance to which she wore bobbie socks and arrived in her cool XKE.
5. Phil, captain of the hockey team, took his sweet old-fashioned date in his Jag to the Beachcomber's dance.
6. A girl slammed her Ford doors and entered The Hop where she danced to the Four Preps in her poodle skirt.
7. Rich rolled up his jeans and arrived at the dance with his radio blaring his sister's favorite song, "Sweeter Than You."
8. As Rich entered the dance, he overheard his sister say, "Sit on it," to a boy wearing a letter sweater who answered, "No, Daddy-oh!"

AT THE HOP

Pedal Pushers	"Cool"	Beach-comber	'56 Ford	Dot Label "Don't Forbid Me" Pat Boone
Rolled-up Jeans	"Man-Oh-Man"	Bunny Hop	GTO	Coral Label "Sweet Old-Fashioned Girl" Teresa Brewer
Letter Sweater	"Wow"	Pink Shoe Laces	YKE	Capitol Label "26 Miles" Four Preps
Bobbie Socks	"Daddy-oh"	Lollipop	'52 Chevy	RCA Victor Label "Love Me Tender" Elvis Presley
Poodle Skirt	"Neato"	Meet a Martian	Jaguar	Coral Label "La Bamba" Buddy Holly
Penny Loafers	"Sit on it"	Under the Sea	409	Imperial Label "Sweeter Than You" Ricky Nelson

AT THE HOP

Name	Clothing	Saying	Name of Dance	Car	Record Label Song Title Artist
Phil					
Paul					
Rich					
Libby					
Joanna					
Jennifer					

ANSWERS TO FROGMORE COUNTY MANIPULATIVE PUZZLES

FROGMORE COUNTY CONTEST

- 1st, Pounder, Nora, Fripp Walking Bridge
- 2nd, Vector, Brett, North Beach Marsh
- 3rd, Croaker, Sarah, Broad River Marsh
- 4th, Macho, Perry, Sea Spray Marsh
- 5th, Felicia, Fred, Parris Island Marsh

UNCLE SAM STATUES

- C, Holly, Colorado, \$12.50
- D, Melinda, Oregon, \$22.00
- A, Andy, Michigan, \$25.00
- B, Chris, Connecticut, \$35.00

BEACH FEAST

- Betty, Marsh, Blue Crab
- Scott, Ocean, Cobia
- Andrea, Coral Reef, Moray Eel
- Marty, Bay, Oysters
- Helen, Cove, Shrimp
- Adam, Sunken Sea Ship, Shark

*Andrea's catch was the most uncommon to eat.

FRANCHISE

- Bianca, Princess Ice Cream, \$100,000
- Bob, Queen Burger, \$110,000
- Bill, Ar-Cee's, \$125,000
- Ben, MacBurger, \$150,000
- Barry, Easyees, \$175,000
- Bonnie, Mindy's, \$200,000

FORUM

Spartan, Oration Meadows, Inform
Ionian, Sicilian Mountain, Oratory
Athenian, Podium Pond, Persuade
Aristotle, The Parthenon, Pantomime
Socrates, Thesis Hills, Bluff

THE PICNIC BASKET

Kevin, pizza, apple, cola, none
Leah, hamburger, apple, cola, lemon slush
Sam, pizza, apple, cola, lemon slush
Linda, pizza, apple, juice, lemon slush
Rachel, hamburger, grapes, juice, lemon slush
Kyle, pizza, apple, cola, lemon slush

AT THE HOP

Phil, letter sweater, "Daddy-oh", Beachcomber, Jaguar,
Coral Label — "Sweet Old-Fashioned Girl" — Teresa Brewer
Paul, penny loafers, "Man-oh-man", Under the Sea, '52 Chevy,
Coral Label — "La Bamba" — Buddy Holly
Rich, rolled-up jeans, "Wow", Pink Shoe Laces, GTO,
Dot Label — "Don't Fraid Me" — Pat Boone
Libby, pedal pushers, "Sit on it", Lollipop Bop, 409,
Imperial Label — "Sweeter Than You" — Ricky Nelson
Joanna, poodle skirts, "Neato", Bunny Hop, '56 Ford,
Capitol label — "26 Miles" — Four Preps
Jennifer, bobble socks, "Cool", Meet the Martian, XKE,
RCA Victor Label — "Love Me Tender" — Elvis Presley

WRITE YOUR OWN LINKS TO LOGIC PUZZLE!

TITLE: _____

By _____

SCENARIO: _____

CLUES: _____

1. _____

2. _____

3. _____

4. _____

5. _____

PUZZLE MATRIX: _____

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An Award Ribbon
for Puzzle Solvers.
Put your student's
name in the circle

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