# Sybil the Scientist
# Extension Activities

| Activity Name/Number | Point Value |
|---|---|
| | |
| 1. Classifying Shapes | 10 points |
| 2. Classsss - ifications | 15 points |
| 3. Under the Big Top | 5 points |
| 4. What comes next – A? | 5 points |
| 5. What comes next – B? | 5 points |
| 6. Trains | 5 points |
| 7. Find the differences - picture | 10 points |
| 8. Number series - A | 10 points |
| 9. Number series - B | 10 points |
| 10. Comparing a candle and a light bulb | 15 points |
| 11. Letter Series - A | 20 points |
| 12. Letter Series – B | 20 points |
| 13. Thinking about alike and different – A | 20 points |
| 14. Thinking about alike and different – B | 5 points |
| 15. Categorize it! | 5 points |
| 16. Which one doesn't belong? | 5 points |
| 17.  Give 'em the boot | 5 points |
| 18.  More Scientific Pairs - A | 15 points |
| 19.  More Scientific Pairs - B | 15 points |
| 20.  Classification | 15 points |
| 21. similarities and differences | 15 points |
| 22. similarities and differences | 15 points |

# Sorting Shapes

**Directions:** Cut apart the shapes below. Look at how the shapes are similar and how they are different. Then sort the shapes into categories. Create a name for each category to show how all the shapes in that group are alike.
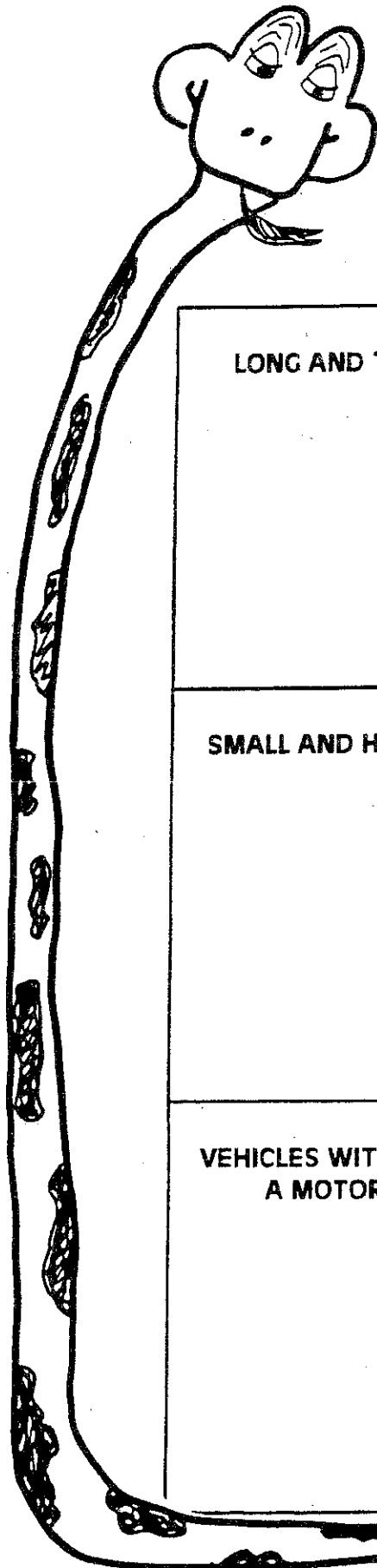
| | | |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |
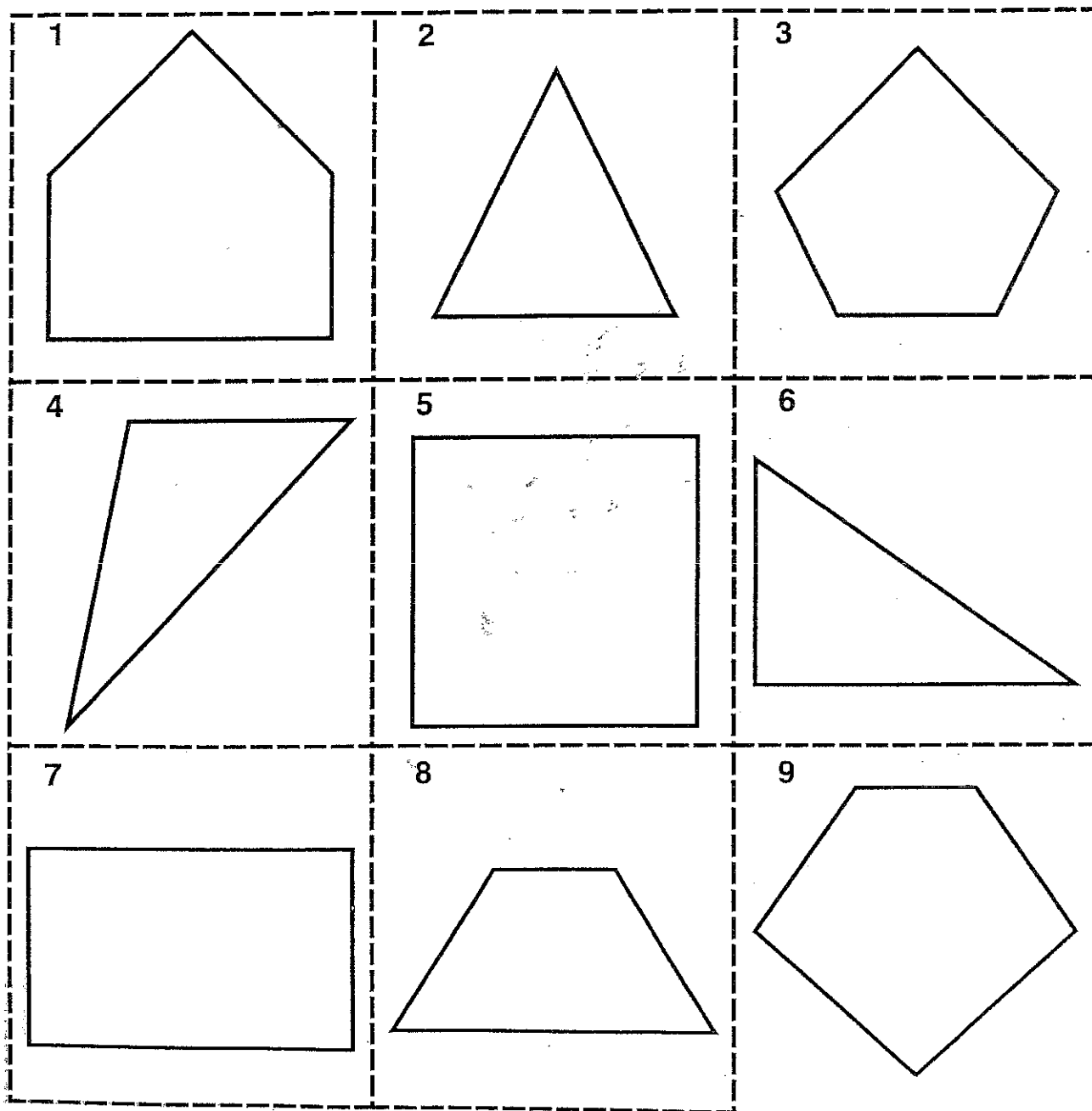
* Ready for another challenge? ☺ Sort the shapes a different way! How many different ways can you classify the shapes given?

10 points

# Classsssss-ifications

Here are some categories looking for
more than one characteristic.

List as many objects as you can
to fit in each category.

| LONG AND THIN | ROUND AND HARD | SOFT AND STICKY |
|---|---|---|
| | | |
| SMALL AND HEAVY | RED AND CAN BE EATEN | FOODS THAT GROW UNDERGROUND |
| | | |
| VEHICLES WITHOUT A MOTOR | PLASTIC AND USED IN KITCHEN | ACTIONS DONE WITH LEGS & FEET |
| | | |

15 points

24

# Under the Big Top

How many objects can you think of to classify in the category "CIRCUS"?

List them below.

_____

_____

_____

_____

_____

_____

_____

_____
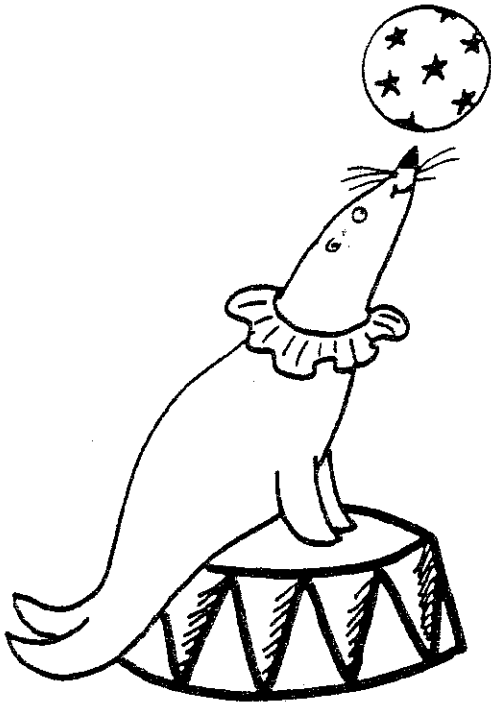
# Full of Hot Air

Think of as many objects as you can that could be classified as "THINGS FILLED WITH AIR."

List them below.

_____

_____

_____

_____

_____

_____

5 points

2

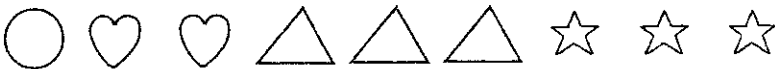# What Comes Next?

Draw the next thing in each series.

1.

☆ ♡ ☆ ♡ ☆

2.

○ ○ △ △ ○

3.

□ ○ ♡ □ ○

4.

□ △ □ △ □ △ □ △ □
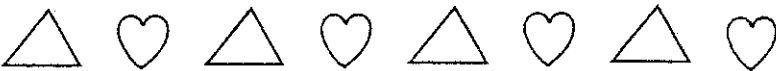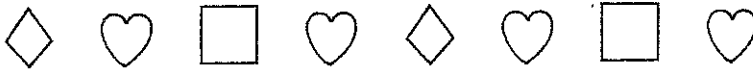
5.

○ ○ ♡ ♡ ◇ ◇ □
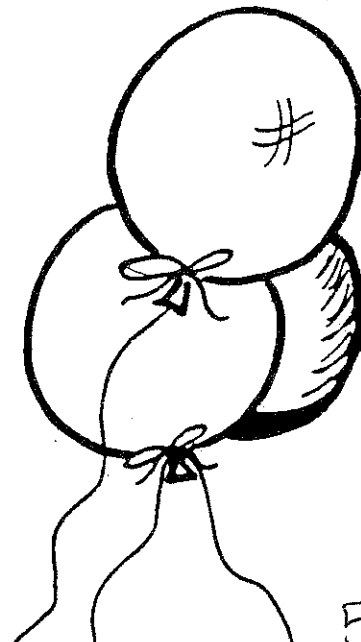
5 points

# What Comes Next?

Draw the next thing in each series.

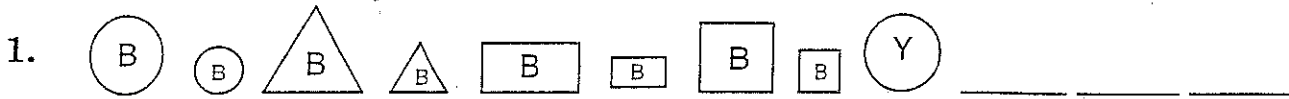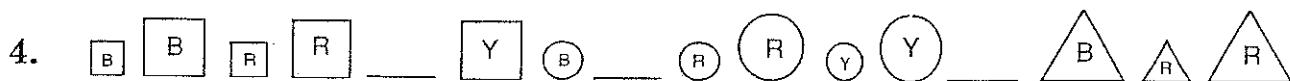| # | Series | |
|---|--------|---|
| 1. | □ ▱ △ □ ▱ △ □ ▱ | |
| 2. | ○ □ □ ○ □ □ ○ □ | |
| 3. | △ ♡ △ ♡ △ ♡ △ ♡ | |
| 4. | ◇ ◇ ◇ ○ ○ ○ □ □ | |
| 5. | ♡ △ ♡ ▽ ♡ △ ♡ ▽ | |
| 6. | ◇ ♡ □ ♡ ◇ ♡ □ ♡ | |
| 7. | ○ ♡ ♡ △ △ △ ☆ ☆ ☆ | |
| 8. | ♡ ♡ □ □ ♡ ♡ △ △ ♡ | |
| 9. | △ △ ☆ △ △ ♡ △ △ ☆ △ | |
| 10. | □ ▭ □ ▭ □ ▭ □ ▭ □ | |

# Trains

**DIRECTIONS:** Draw and color or write in the color for the missing pattern blocks in each train.

B = Blue    R = Red    Y = Yellow

Add three more cars to the train, following the same pattern.

1. (B) (B) /B\ /B\ [B] [B] [B] [B] (Y) ___ ___ ___

2. [R] [Y] [B] [R] [Y] [B] /R\ /Y\ ___ ___ ___

3. /Y\ [Y] (Y) [Y] /Y\ [Y] (Y) [Y] /B\ [B] ___ ___ ___

Fill in the blank spaces of the train, following the same pattern.

4. [B] [B] [R] [R] ___ [Y] (B) ___ (R) (R) (Y) (Y) ___ /B\ /R\ /R\

5 points
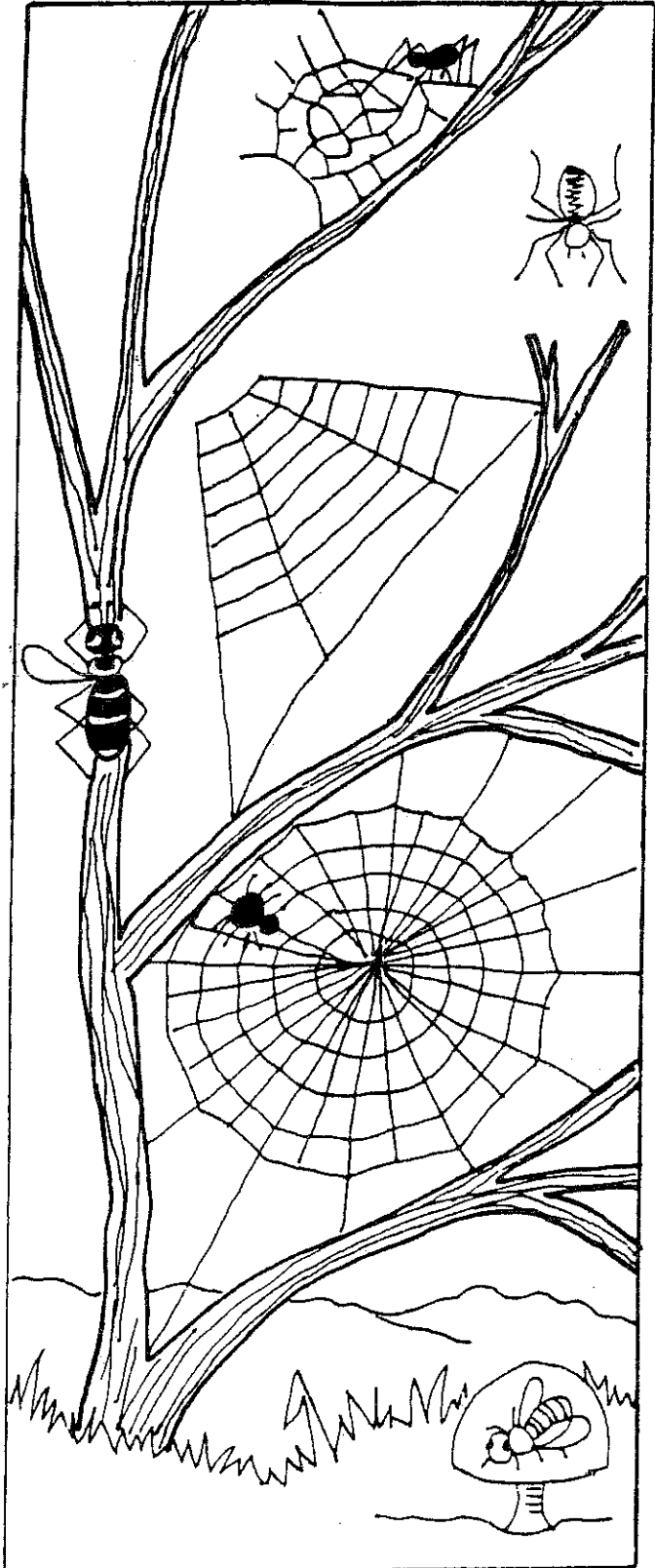
# Find at least 10 ways in which these pictures are different.
## Circle each difference.

A

B

13
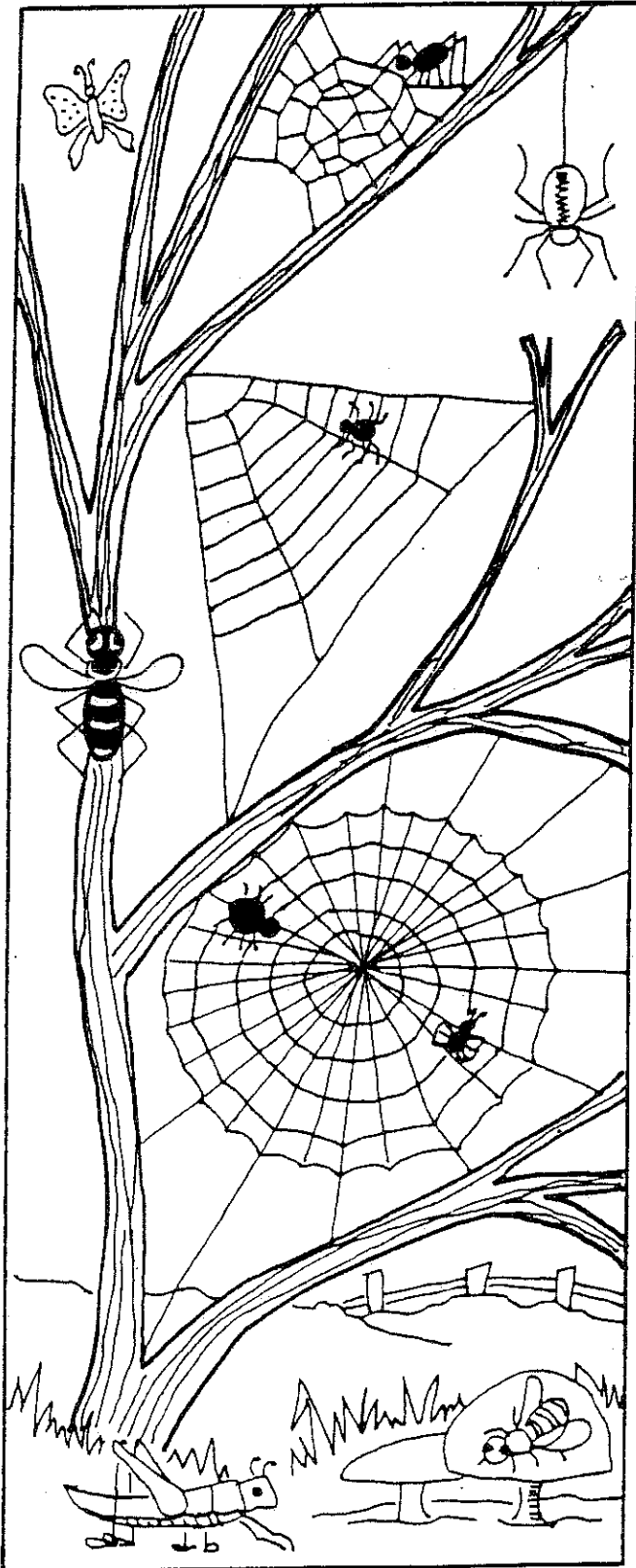
# Number Series

Write the next number in each series.

1.  1 2 3 1 2 3 1 2          _____

2.  1 2 2 1 2 2 1 2          _____

3.  1 2 1 2 1 2 1 2          _____

4.  1 1 1 2 2 2 3 3          _____

5.  1 2 3 4 1 2 3 4          _____

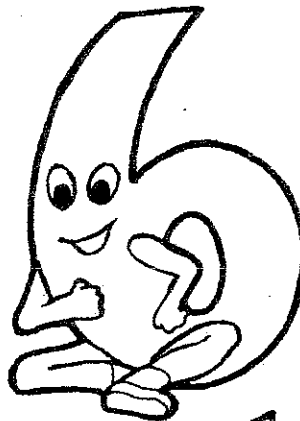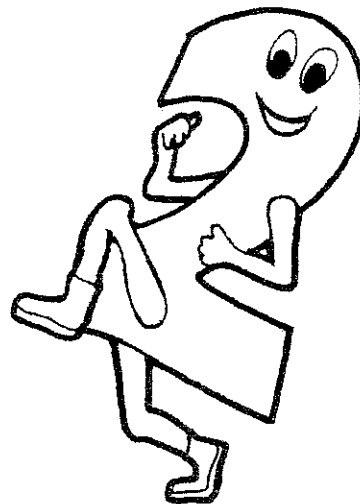6.  1 2 3 2 1 2 3 2          _____

7.  1 2 2 3 3 3 4 4 4          _____

8.  1 1 2 2 1 1 3 3 1          _____

9.  1 1 2 1 1 3 1 1 2          _____

10.  1 5 1 10 1 15 1 20 1          _____

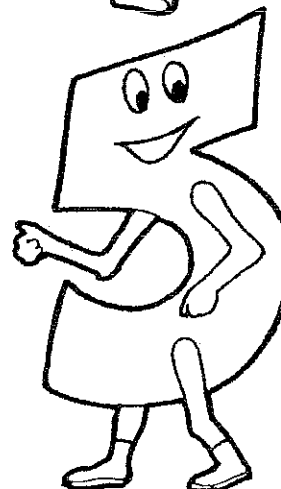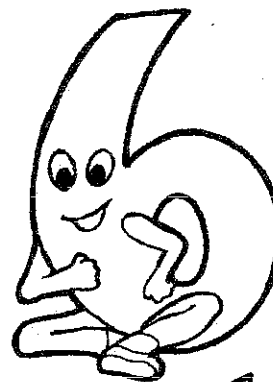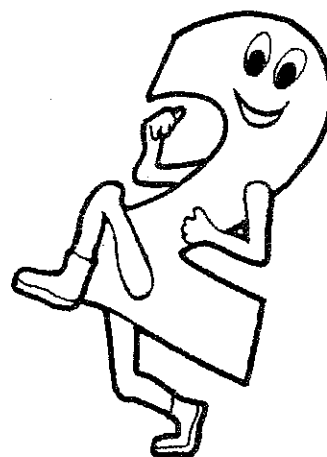11.  10 9 8 7 6 5 4 3 2          _____

12.  1 2 4 8 16 32          _____

# Number Series

Write the next number in each series.

1.  1 2 3 4 5 6 7 8 _____

2.  2 4 6 8 10 12 14 16 _____

3.  1 3 5 7 9 11 13 15 _____

4.  1 2 3 5 6 7 9 10 _____

5.  1 1 2 2 3 3 4 4 _____

6.  1 9 2 8 3 7 4 6 _____

7.  9 8 7 6 5 4 3 2 _____

8.  5 10 15 20 25 30 35 40 _____

9.  1 4 7 10 13 16 19 22 _____

10.  10 20 30 40 50 60 70 80 _____

11.  18 16 14 12 10 8 6 4 _____

12.  0 1 0 2 0 3 0 4 _____

13.  5 4 3 2 1 5 4 3 _____

14.  3 1 4 5 9 14 23 37 _____
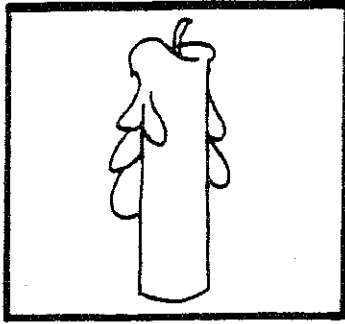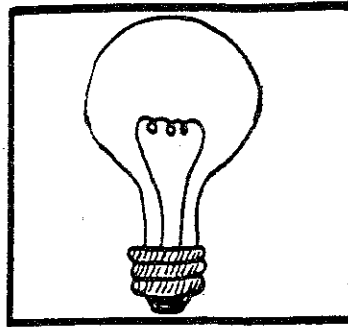
15.  3 6 9 12 9 6 3 6 _____

**SET A**

How are these alike? _____

_____

_____

How are they different? _____

_____

_____
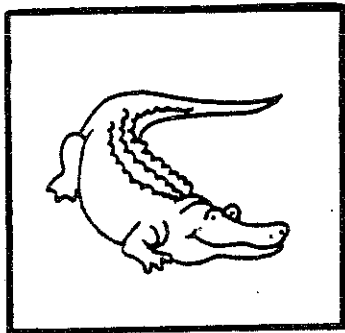
**SET B**

How are these alike? _____

_____

_____
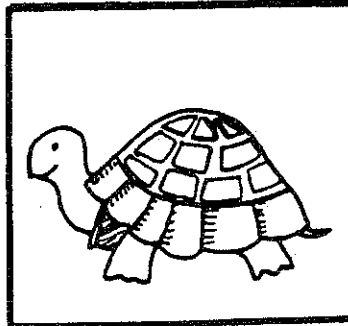
How are they different? _____

_____

_____

# Letter Series

Write the next letter in each series.

1. A B C D E F G H I J  _____

2. L M N O P Q R S T U  _____

3. Z Y X W V U T S R Q  _____

4. A A B B C C D D E E  _____

5. A B A C A D A E A F  _____

6. A B B C C C D D D  _____

7. A B C X Y Z A B C X  _____

8. A A A B C C C D E E  _____

9. A E I O U A E I O U  _____

10. A A A B B B C C C D  _____

11. A Z Z Z A Z Z Z A Z Z A  _____

12. A B C B A B C B A B  _____
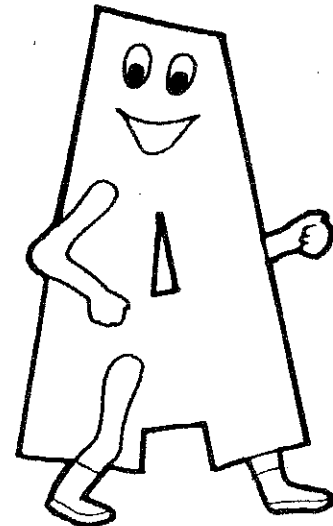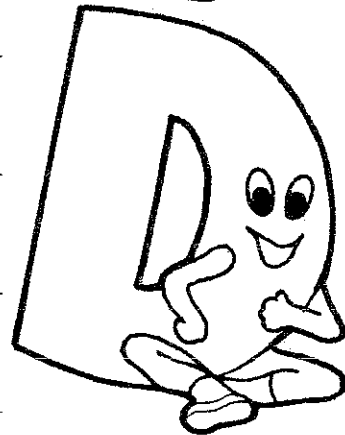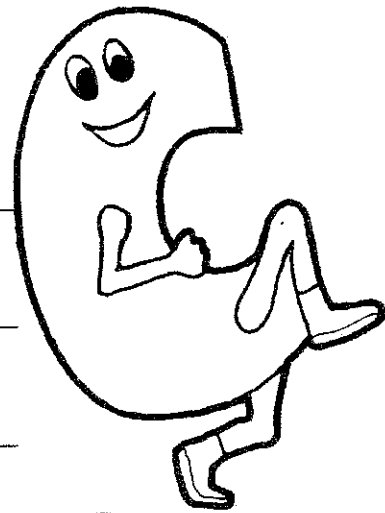
# Letter Series

Write the next letter in each series.

1. A B C D E F _____

2. A C E G I K _____

3. B D F H J L _____

4. Z Y X W V U _____

5. Z X V T R P _____

6. A D G J M P _____

7. A A B B C C _____

8. A B C D A B _____

9. A B C B A B _____

10. A B B A B B _____

11. Z T V Z T V _____

12. M Q E Q M Q _____

13. B D K K D B _____

14. A Z B Y C X _____

15. A Z A Y A X _____

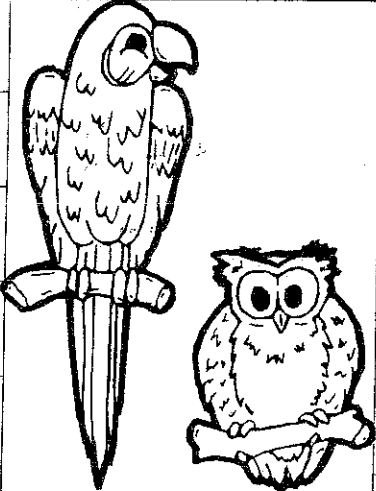**Teacher Note:** This page is challenging.
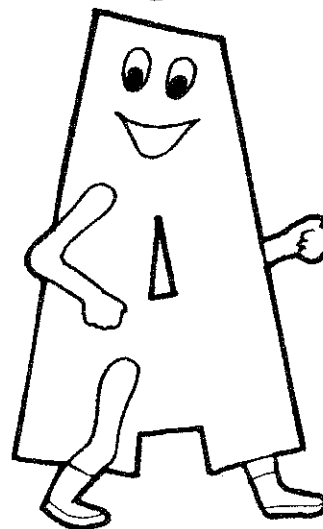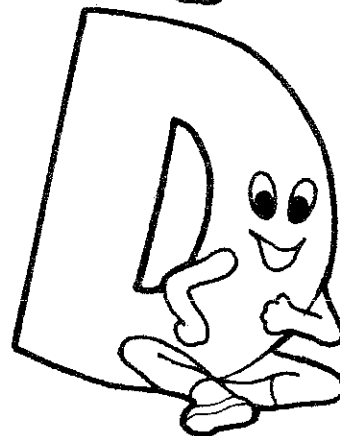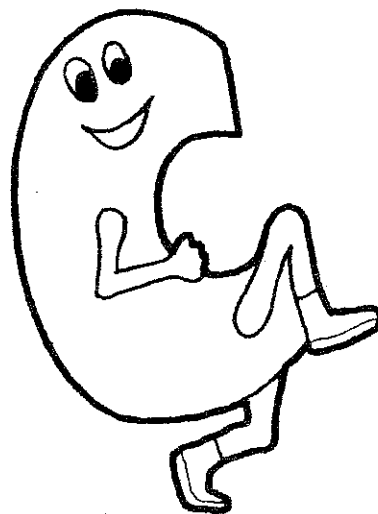
Name _____
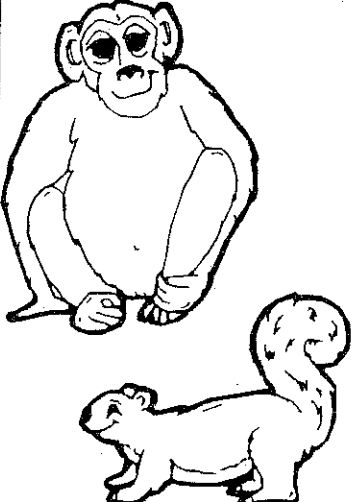
# Thinking about Alike and Different

| Alike | | Different |
|---|---|---|

# Thinking about Alike and Different

| Alike | | Different |
|---|---|---|
| | | |

#15

5 points

**The words on each leaf name things that will fit in the same category. Find the category name in the box below. Write it on the leaf.**
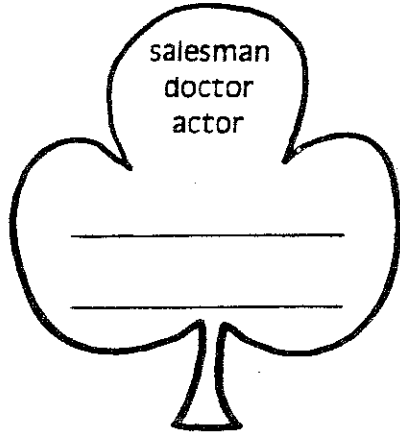
deer
car
moose
_____

jet
crow
bee
_____

salesman
doctor
actor
_____

hammer
drill
pliers
_____

ant
flea
beetle
_____

cheese
sauce
pepperoni
_____

table
chair
bed
_____

firefly
lamp
match
_____

raft
cork
boat
_____

| furniture | jobs | things with horns |
| tools | things that fly | insects |
| things that float | parts of pizza | things that light |

# Which One Doesn't Belong?

Read each row of words carefully. Cross out the one that doesn't fit in a category with the others. On the line, tell why it doesn't fit.

1.  milk        snow        rain        paste        _____

2.  kick        grab        hop         jump         _____

3.  Sunday      Friday      Tuesday     March        _____

4.  pizza       cookie      cake        pie          _____

5.  horse       bus         slide       bicycle      _____

6.  box         plate       sack        barrel       _____

7.  lizard      ant         bee         cricket      _____

8.  run         swim        fly         sit          _____

9.  black       light       green       blue         _____

10. raft        canoe       wagon       sailboat     _____

11. scream      yell        shout       whisper      _____

12. boot        slipper     sandal      shoe         _____

13. rose        daisy       tomato      pansy        _____

14. bear        wolf        elephant    ostrich      _____
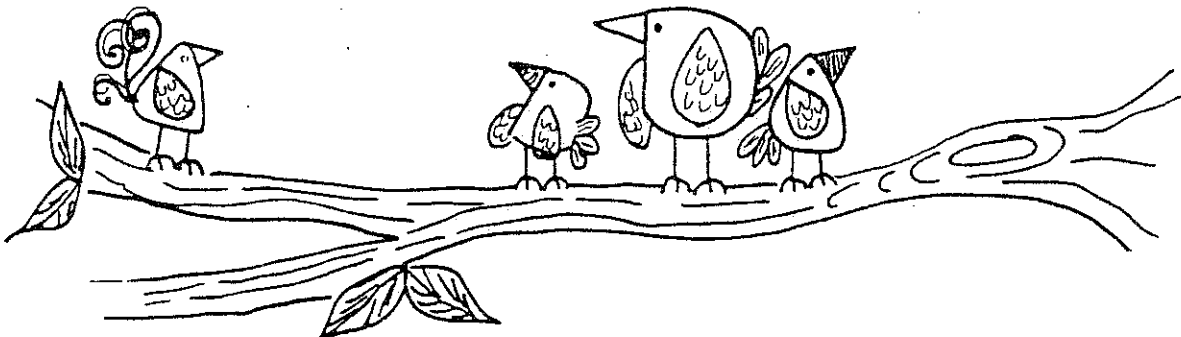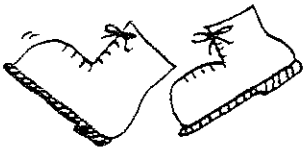
*Classification*

# Give 'em the Boot!

Read each row of words carefully. Cross out the one that doesn't fit in a category with the others. On the line, tell why it doesn't fit.

1. cow     tiger     pig     goat

_____

2. happy     cheerful     grouchy     delighted

_____

3. Jim     Jack     Jane     Joe

_____

4. pants     sweater     shirt     jacket

_____

5. radio     book     TV     movie

_____

6. dog     goose     chicken     ostrich

_____

7. bracelet     ring     earring     belt

_____

8. glass     bottle     sack     cup

_____

# More Scientific Pairs

**How is a seashell like a tree?**

_____

_____

_____

How are they different?

_____

_____

_____

**How is a door like friendship?**

_____

_____

_____

How are they different?

_____

_____

_____

# More Scientific Pairs

**How is a rain forest like a circus?**

_____

_____

_____

How are they different?

_____

_____

_____

**How is a stamp like a good book?**

_____

_____

_____

How are they different?

_____

_____

_____
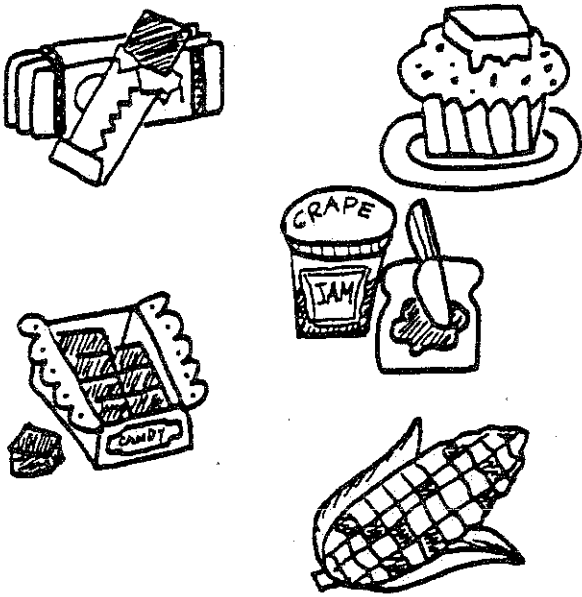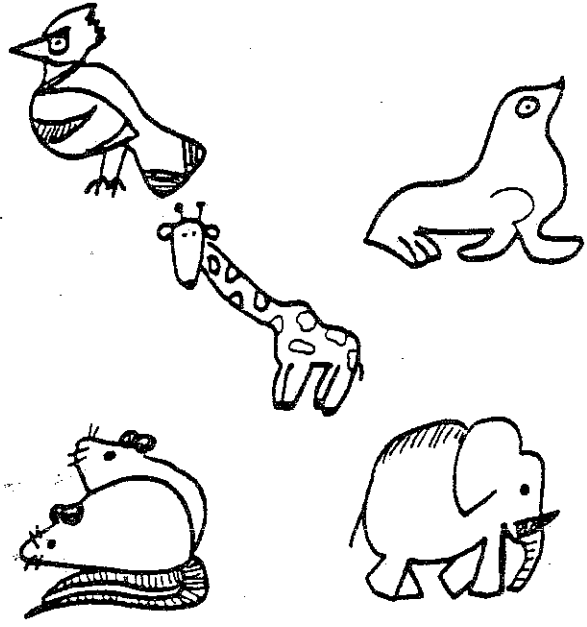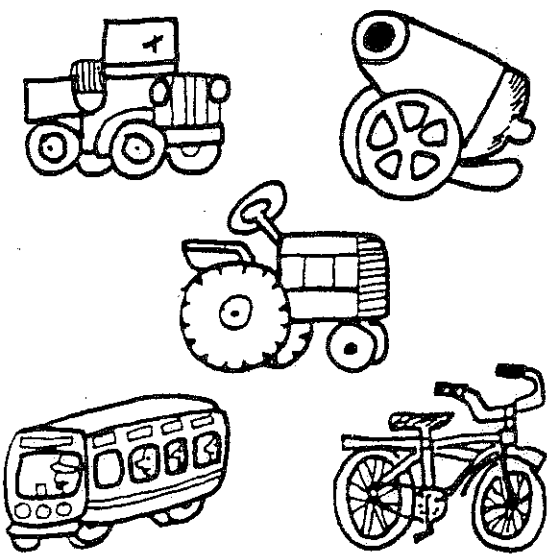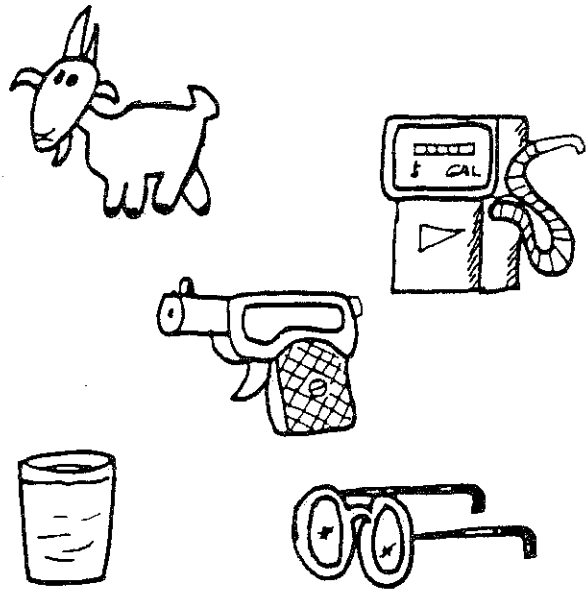
In order to be grouped together into one category,
the objects must share at least one characteristic.

**Look at the objects in each category box below.
How are they alike? Label each category.**

**Category:** _____

**Category:** _____

**Category:** _____

**Category:** _____

# Find pictures of objects that have at least one similarity.

## Draw a line connecting them.

2

Name _____

## Look at the pictures in each box. Write a similarity on the "S" line. Write a difference on the "D" line.
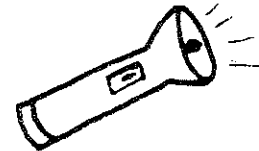
S _____

D _____

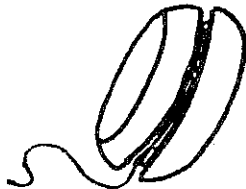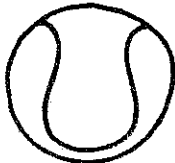S _____

D _____

S _____
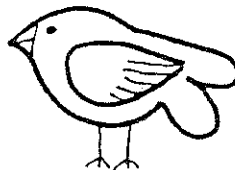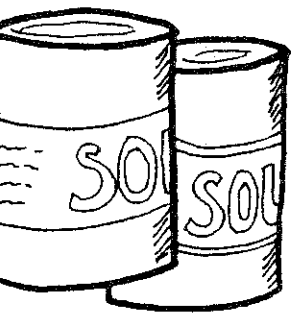
D _____

S _____

D _____

S _____

D _____

S _____

D _____

S _____

D _____

S _____

D _____
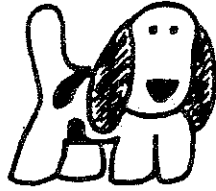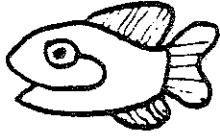
Look at each group of words. Find at least one way they are similar.
Write the similarity on the lines under each group.

| hum          talk | ball           jar lid |
| whistle      sing | marble         plate |

_____

_____

| leap         skip | sour          spicy |
| jump         hop  | sweet         salty |

_____

_____

| happy        cheery   | leopard       lion |
| smiling      pleasant | tiger         cheetah |

_____

_____

| cabin        tent   | knee          foot |
| house        castle | hip           ankle |

_____

_____

| chicken noodle | book          comic |
| tomato      onion | newspaper |
| vegetable | magazine |

_____

_____