

Lab Title:..*Classification by Morphology*.....Lab #....7..

Lab Partners:.....

Your Lab Score will be based on the following:

**Neatness:** All labs must be **well-written and done in pencil** unless directed otherwise. There are to be no cross-outs or misspelled words. Questions should be answered in complete sentences.

**Accuracy:** Certain **questions will be checked** for accuracy.

**Completeness:** All questions are to be answered completely. There are to be **NO BLANKS** or incomplete sections.

**Lab Class Procedure:** You are to **follow directions** and use lab equipment properly, work for the entire period, and follow proper clean-up procedures

**Rubric:**

Lab Score Category	Points Earned										
Neatness	0	1									
Accuracy	0	1	2	3	4						
Completeness	0	1	2	3							
Lab Class Procedure	0	1	2								
<u>Total Lab Score</u>	0	1	2	3	4	5	6	7	8	9	10

You are to submit all lab material with this lab report:

Comments:

### 3-1 How Can Paper Objects Be Grouped?

You group, or classify, many things every day. The phone book, the library, and the grocery store are all classified to make finding things easier. In any classification, things with similar traits are grouped together.

Scientists divide living things into groups. The main groups are called kingdoms. Kingdoms are divided into phyla. Phyla are divided into classes. The other groups are order, family, genus, and species. The more similar two living things are, the more groups they share.

#### GOALS

In this exercise, you will:

- group paper objects.
- use the words *kingdom*, *phylum*, and *class* in your classification.
- decide what traits were used in the classification.

#### KEYWORDS

Define the following keywords:

class \_\_\_\_\_

classify \_\_\_\_\_

kingdom \_\_\_\_\_

phylum \_\_\_\_\_

trait \_\_\_\_\_

#### MATERIALS



paper

scissors

#### PROCEDURE

- Get a copy of the paper objects in Figure 2 on the next page from your teacher.
- Cut out the objects as shown in Figure 1. **CAUTION:** Use extreme care with the scissors.
- Place the objects on your desk. Divide them into two groups as follows:
  - Put objects 1, 4, 6, 7, 9, 11, 13 and 16 into one group. These will represent the classification level of one kingdom. What trait do all of these objects have in common? \_\_\_\_\_

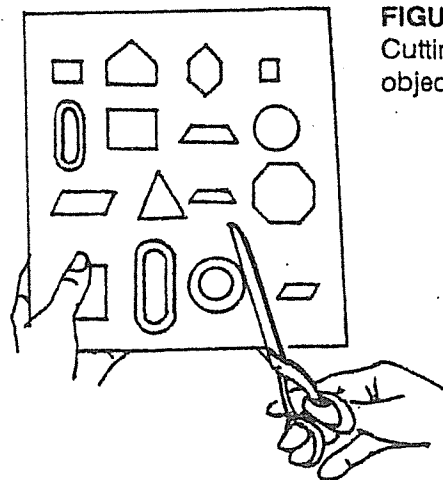


FIGURE 1.  
Cutting out  
objects

- b. Put objects 2, 3, 5, 8, 10, 12, 14, and 15 into a second group. These will represent a second kingdom. What trait do all these objects have in common? \_\_\_\_\_
- c. Write a good kingdom name for each group in Table 1 on the next page.
4. a. Divide the objects from the first kingdom only in this way. Put objects 1, 4, 11, and 16 into one group. Put objects 6, 7, 9, and 13 into a second group. This represents the next classification level called Phylum.

What trait was used to separate the two groups? \_\_\_\_\_

- b. Write a good phylum name for each group in Table 1.
5. a. Divide the objects from the second kingdom in this way. Put objects 2, 3, 10, and 12 into one group. Put objects 5, 8, 14, and 15 into a second group.

What trait did you use to separate the objects into two groups? \_\_\_\_\_

- b. Write a good phylum name for each group in Table 1.
6. a. Use objects 1, 4, 11, and 16. Separate them into two groups as follows. Put objects 1 and 4 into one group and objects 11 and 16 into a second group. This represents the next classification level called Class.

What trait did you use to separate the objects into two

groups? \_\_\_\_\_

- b. Write the classification level and a name for these groups in Table 1.
7. a. Separate out objects 2, 3, 10, and 12. Then group them into two groups.

What traits did you use to group them as you did? \_\_\_\_\_

- b. Write the objects' classification level and group names in Table 1.
8. a. Repeat Step 7 for objects 6, 7, 9, and 13. Complete Table 1.
- b. Repeat Step 7 for objects 5, 8, 14, and 15. Complete Table 1.

### QUESTIONS

1. Underline the correct word choice in each of these sentences.
- a. Objects in the same class also belong to the same (phylum, genus, family).
- b. Objects in the same phylum also belong to the same (family, order, kingdom).
2. List the classification levels in order from largest to smallest. \_\_\_\_\_

3. Classifications are not all alike. Suppose objects 5, 14, and 15 were put in one group. What trait do they have in common? \_\_\_\_\_
4. Write a name below for each of these groups.

Objects 1 and 4 \_\_\_\_\_

Objects 2 and 3 \_\_\_\_\_

Objects 10 and 12 \_\_\_\_\_

Objects 8 and 15 \_\_\_\_\_

5. What are used to determine if living things belong to a particular group? \_\_\_\_\_  
 \_\_\_\_\_
6. How are pieces of clothing classified in a department store? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
7. How are athletic teams grouped? \_\_\_\_\_  
 \_\_\_\_\_
8. What are two reasons for classifying things? \_\_\_\_\_  
 \_\_\_\_\_

**Table 1. Classifying Objects**

Group	Classification level	Group name
1, 4, 6, 7, 9, 11, 13, 16	Kingdom	
2, 3, 5, 8, 10, 12, 14, 15		
1, 4, 11, 16	Phylum	
6, 7, 9, 13		
2, 3, 10, 12		
5, 8, 14, 15		
1, 4	Class	
16, 11		
2, 3		
10, 12		
6, 13		
7, 9		
15, 14		
5, 8		

