

## Biological classification worksheet

### Five-Kingdom System

**Animal Kingdom** - Invertebrates (without backbones) and vertebrates (with backbones), multicellular, no cell walls, obtain energy through respiration

**Plant Kingdom** - multicellular, have cell walls, obtain energy through photosynthesis. Ex. mosses, ferns, flowering and seed plants

**Fungi Kingdom** - cells with cell walls but not green and do not carry out photosynthesis, break down other organic materials to obtain food. Ex. mushrooms, molds, and yeasts

**Protist Kingdom** - come in a wide variety of forms, some are animal-like, such as amoeba, paramecium and protozoan. Some are plant-like such as algae and others are fungi-like. Many are single-celled and others are multicellular.

**Monera Kingdom** - some photosynthesize while others respire. The nucleus of Moneran cells are not bounded by nuclear membranes like cells in the other kingdoms. Ex. bacteria and blue-green algae.

### The classification of humans - *Homo sapiens*

The two part naming system is called *Binomial nomenclature* (consists of *genus* and *species*).

**Kingdom:** Animalia

**Phylum:** Chordata

**Class:** Mammalia

**Order:** Primata

**Family:** Hominadae

**Genus:** Homo

**Species:** sapiens (note: species is **not** capitalized).

Using the information above, answer the following questions.

1. What is the next smallest classification group after Order? \_\_\_\_\_
2. What is the smallest classification group? \_\_\_\_\_
3. Every living organism has what classification groups as its name? \_\_\_\_\_ and \_\_\_\_\_

4. The first letter of every genus name is \_\_\_\_\_.
5. The first letter of every species name is \_\_\_\_\_.
6. What is binomial nomenclature? \_\_\_\_\_.
7. Give one example of how you classification is used at school.
8. Why is the understanding of classification an important life skill?

## Classification Practice – Animals

### Part A

In the exercises that follow, arrange the items listed into different groups. Give each group a title indicating what the members of that group have in common.

1. German Shepherd, Great Dane, parrot, Irish setter, canary, husky, robin, pigeon

Title _____	Title _____
_____	_____
_____	_____
_____	_____

2. Apples, peas, orange, banana, carrot, lettuce, turnip, pear, grape, potato

Title _____	Title _____
_____	_____
_____	_____
_____	_____

\_\_\_\_\_

\_\_\_\_\_

3. Steak, football, sausage, chair, table, bacon, sofa, baseball bat, cleats, ham, bookcase

Title \_\_\_\_\_ Title \_\_\_\_\_ Title \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Part B Study the following list of living things:

Mare, trout, parrot, quarterhorse, woodpecker, spaniel, goldfish, Great Dane, eagle, bass, beagle, hawk, stallion, Dalmatian, shark

1. Classify them into two groups (give each group a name).

Group 1 \_\_\_\_\_ Group 2 \_\_\_\_\_

2. Using the same list of living things show how they could be classified into three groups.

Group 1 \_\_\_\_\_

Group 2 \_\_\_\_\_

Group 3 \_\_\_\_\_

3. Using the same list, show how they could be classified into four groups.

Group 1 \_\_\_\_\_

Group 2 \_\_\_\_\_

Group 3 \_\_\_\_\_

Group 4 \_\_\_\_\_







Touch a scientist and you touch a child.



*-Ray Bradbury*

## *Yes, But is it Alive?*

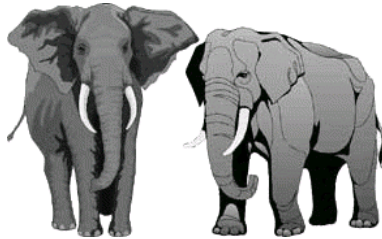
Scientists divide or classify things into three major groups. These groups are: living, nonliving, and once living. Living things are objects that can pass on genetic information through reproduction. The term once-living is a term that refers to things that were at one point part of a living thing.

See how well you understand this. Your goal will be to identify correctly the correct group for each of the following photographs.

<i>Object</i>	<i>Living (includes once living) or Non-Living</i>
	
	
	
	
	
	

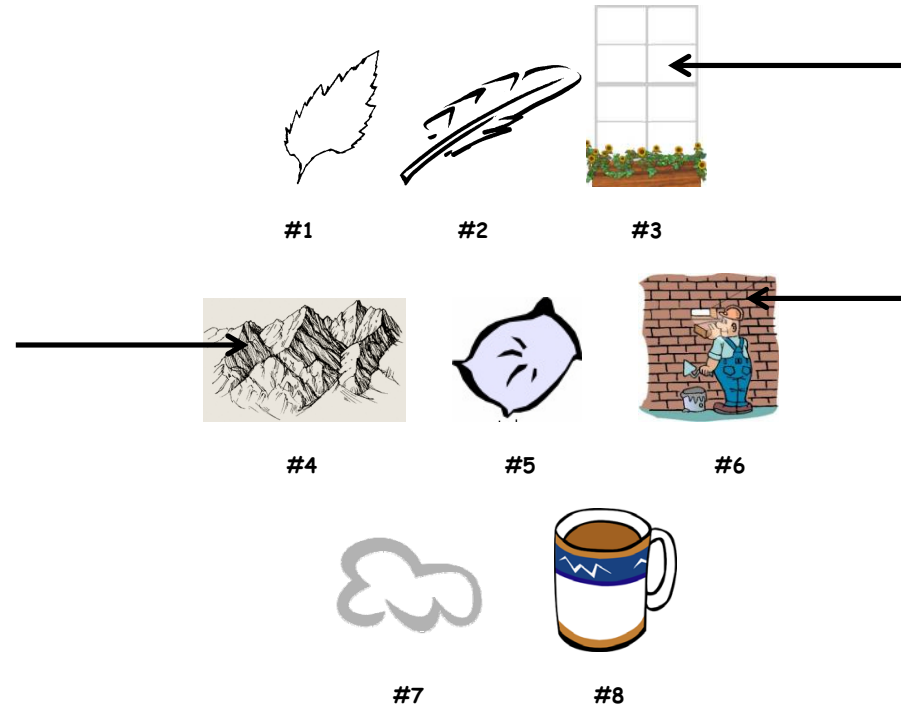
## *A Tale of Two Elephants*



1. What organisms are shown?
2. Do they look the same?
3. Do the pictures show the same species?
4. How are they elephants similar?
5. How are they different?

## *Is it Hard or Soft?*

Scientists place things in categories based on their external structures. Determining how to group things is called classification. Below are photographs of some non-living things.



In the box below, identify which objects are hard and soft.

<i>Soft Objects</i>	<i>Hard Objects</i>