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 ______.

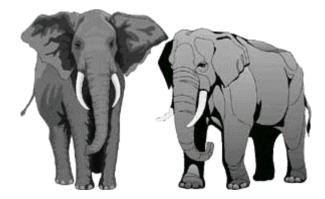
5. The first letter of every species name is _____.

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?

A Tale of Two Elephants

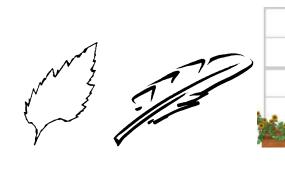


- 1. What organisms are shown?
- 2. Do they look the same?
- 3. Do the pictures show the same species?
- 4. How are they elephants similar?

5. How are they different?

Ds 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.



#1

#3





#2



#4

#5

#6



#8

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

Soft Objects	Hard Objects

Besides hard and soft, list two other ways that could be used to divide non-living things into two groups.

α.

b.

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.

Object	Living, Non-Living, or Once Living

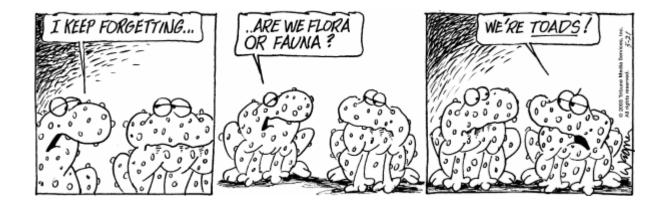


Uncle Fester's CDs

Congratulations, your Uncle Fester has just willed you his CD collection!!! Using what you know about classification, see if you can arrange these CDs into similar groups to make them easier for your customers to find. Make a list of four groups that these CDs can be classified into.

Leann Rhimes	Sara Evans	The Beatles	Enigma
Mozart	Bach	Beyoncé	Tim McGraw
Rolling Stones	Elvis Presley	Paula DeAnda	Beach Boys
Beethoven	Strauss	Carrie Underwood	Robin Thicke

Group 1	Group 2	Group 3	Group 4



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, p	eas, orange, banana, carrot,	lettuce,	turnip, pear, grape, potato	
Title		_ Title		
		-		
-		-		
3. Steak, fo	ootball, sausage, chair, table	, bacon,	sofa, baseball bat, cleats, han	n, 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	

The most exciting phrase to hear in science, the one that heralds new discoveries, is not Eureka! (I found it!) but rather, "hmm.... that's funny...."

-Isaac Asimov

Touch a scientist and you touch a child.

-Ray Bradbury



"Mr. Osborne, may I be excused? My brain is full."