

Name _____ Score _____

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 _____.

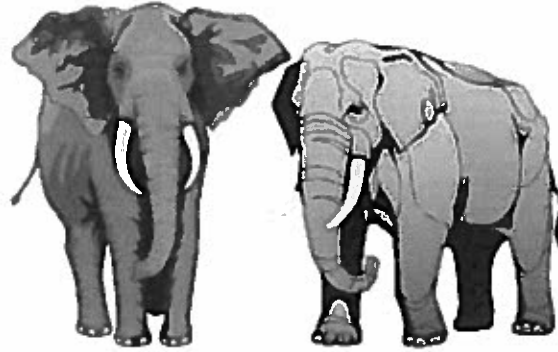
5. The first letter of every species name is _____.

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?

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.



#1



#2



#3



#4



#5



#6



#7



#8

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

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

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

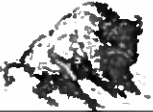




a.

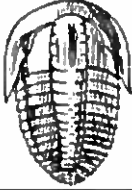


b.

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.

<i>Object</i>	<i>Living, Non-Living, or Once Living</i>
	
	
	
	
	

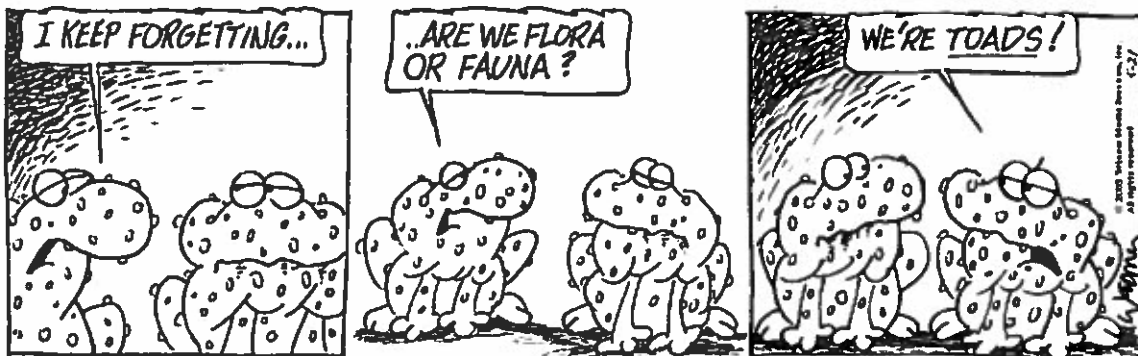
	
	
	

Uncle Fester's CDs

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



Name _____ Score _____

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 _____

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."

Silly Science

Name _____

A dichotomous key is a valuable tool that can be used to identify many objects ranging from plants to minerals. The key on this page was designed to identify common objects. Discover the silly scientific name of each object.

- 1a. Item is 10 cm or more in any dimension..... go to 2
- 1b. Item is less than 10 cm in any dimension go to 5

- 2a. Item has wooden parts go to 3
- 2b. Item does not have wooden parts go to 5

- 3a. Item has a pointed edge Widget
- 3b. Item does not have a pointed edge go to 4

- 4a. Item is flat Gadget
- 4b. Item is rounded Wadget

- 5a. Item has a spherical shape go to 6
- 5b. Item is not spherical go to 7

- 6a. Item is white in color Whatnot
- 6b. Item is not white in color Fancy Whatnot

- 7a. Item is a writing instrument..... go to 8
- 7b. Item is not a writing instrument go to 9

- 8a. Item is white in color Screecher
- 8b. Item is not white in color Squealer

- 9a. Item is partly or completely made of metal go to 10
- 9b. Item does not have metal parts go to 11

- 10a. Item is more than 3 cm in length Super Duper
- 10b. Item is less than 3 cm in length Itsy Bitsy

- 11a. Item is soft or flexible Oopsey
- 11b. Item is not soft or flexible Cubey

- A. White marble _____
- B. Unsharpened Pencil _____
- C. White Chalk _____
- D. Wooden Splint _____
- E. Sharpened Pencil _____
- F. Colored marble _____
- G. Small Paperclip _____
- H. Eraser _____
- I. Die _____
- J. Large Paperclip _____