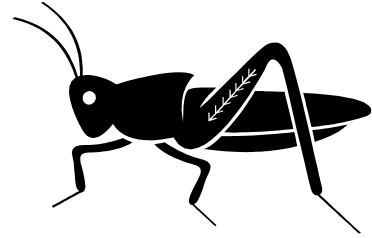


Unit One - Arthropod Classification Study Guide

Lesson Objectives

By the end of the unit you should be able to:

- 1) Define classification.
- 2) Describe the hierarchy in classifying any organism.
- 3) Describe what Linnaeus did for classification.
- 4) Give an example of an organism's classification, from its kingdom to the species level.
- 5) Describe the characteristics of the phylum Arthropoda.
- 6) Differentiate the major arthropod classes and orders.



1. Classification

- a) Define classification:
- b) Define taxonomy:
- c) What are the five kingdoms?
- d) What is the advantage of using a scientific name over a common name of an organism?
- e) How does classification help us identify an organism?

a. Classification system

- f) Write out your own little ditty besides Kings Play Chess On Fine Gold Saddles to remember the sequence to 1) Kingdom, 2) Phylum, 3) Class, 4) Order, 5) Genus, and 6) Species:

K

P

C

O

F

G

S

b. Examples

g) Examples of classification. Classify two organisms the way the Lion and Beetle were.

If you need more help, check out the web or your text.

Hierarchy	Organism:	vs.	Organism:
Kingdom			
Phylum			
Class			
Order			
Family			
Genus			
Species			

c. Father of Classification

h) Carolus Linnaeus

i) Who is he? And what did he do for Classification?

2. What is an arthropod?

a) What observations did you make from the Arthropod Activity?

b) Which phylum do insects, crabs and spiders belong to?

c) What distinguishes an arthropod from other phyla? For instance, how can you tell an arthropod from a human?

d) What are the advantages and disadvantages to having an exoskeleton?

3. Arthropod subphyla

a) What are the names of the two Arthropod subphyla?

i) How are these subphyla different from each other? Which ones have antenna? How do they differ in their mouth types?

Chelicerata

4) List the two chelicerate classes discussed in the table. And write down examples of each.

Chelicerate Class:		
Examples:	(such as spiders, ticks, etc.)	

5) Define cephalothorax:

6) What are the six arachnid orders and their common names? List them in the table below.
What are their distinguishing characteristics?

Arachnid Order:	1.	2.	3.	4.	5.	6.
Common Name:						
Distinguishing characteristics:						

a) Take the Arachnid Order Quiz.

Mandibulata

7) List the four Mandibulate classes discussed in this unit:

a) How do you differentiate between them? Finish filling out the table below as you read about Mandibulate Classes.

Mandibulate class:	Crustacea	Insecta	Chilopoda	Diplopoda
Distinguishing characteristics:	1. Biramous appendages			
Examples:	1. Crab			

b) What are the two Crustacean Orders discussed in this unit?

i) List three characteristics of Decapods:

Character Summary

8) Arthropod Classes Characteristic Summary.

a) How do you differentiate between a spider, an insect and a crustacean?