Classification Study Guide:

**Introduction**

There are 5 kingdoms that all living things are classified into. These kingdoms are animal, plant, bacteria, protist, and fungi. The 6th kingdom to some scientists is the moneran.

The order of classification is:

KINGDOM (King) Broadest/Largest/Biggest

PHYLUM (Phillip)

CLASS (Came)

ORDER (Over)

FAMILY (For)

GENUS (Good)

SPECIES (Spaghetti) Unique, Only One, smallest group

**Animal Kingdom:**

The animal kingdom is grouped into two phyla: Vertebrates (backbone) and Invertebrates (no backbone).

The vertebrate phylum consists of 5 classes: mammals, reptiles, amphibians, fish, and birds.

Mammals have hair, live babies, are warm blooded, and produce milk for their young.

Reptiles have scales, dry skin, are cold blooded, and lay eggs.

Fish have scales, live in the water, are cold blooded, breathe through gills, and lay eggs

Amphibians live part of their lives in water and part on land. They have smooth, moist skin, are cold blooded, and lay eggs.

Birds have feathers, are warm blooded, and lay eggs.

Examples of each class:

Mammals: dolphin, humans, cats

Reptiles: snake, turtles, alligators, crocodiles

Amphibian: frogs, toads, salamanders

Fish: sharks

Birds: penguins

An animal’s science name comes from its GENUS and SPECIES.

Example:

a house cat: FELIS (genus) DOMESTICUS (species)

a small jungle cat: FELIS (genus) CHAUS (species)

These animals are closely related because they share the same genus classification - Felis.

Invertebrates are the largest phylum (Arthropods are the largest phylum). 97% of all animals are invertebrates. There are 5 invertebrates phyla. These include simple invertebrates, mollusks, arthropods, worms, and echinoderms

Simple Invertebrates:

sponges, jellyfish, corral, and anemone

Mollusks:

 These animals all have soft bodies. Some have shells

Octopus, squids, snails, clams, oysters

Echinoderm:

These animals have extremities or body parts of 5.

Sea stars, sea urchin, sand dollars,

Worms:

Body segments, You can’t easily tell their heads from their tails.

Roundworms, earthworms

Arthropods:

Arthropods have an external skeleton (exoskeleton). When an arthropod grows, it sheds it skeleton. There are several classes within the arthropod phyla.

These include:

Crustaceans- crab, lobsters, and shrimp

Arachnids- spiders, mites, ticks, scorpions

Insects- any animal with 6 legs and 3 body parts – beetles, mosquitoes, butterflies, roaches, bees