

## S5L1. Animal and Plant Classification Study Guide

- **8 Levels of Classification:** Largest to smallest
  - Domain, Kingdom, Phylum, Class, Order, Family, Genus, Species
    - **Hint:** Do Kids Prefer Candy Over Fried Green Spinach
- Plants and animals are multicellular
- The main difference between members of the plant kingdom and members of the animal kingdom is that plants make their own food and animals eat other living (once living) things.
- **Characteristic:** A feature belonging to a thing that helps to identify it
- **Classify:** To arrange in groups based on shared characteristics
- **Warm-blooded:** maintain a constant body temperature, typically above that of the surroundings
- **Cold-blooded:** having a body temperature like their environment

### Animal Kingdom Classification

| <b>Vertebrates</b><br>Animals with a backbone |  |                                    |
|---|--|------------------------------------|
| <b>Mammals</b>                                | Warm-blooded<br>Gives milk to young<br>Live births<br>Hair                       | Human<br>Monkey<br>Whale           |
| <b>Birds</b>                                  | Warm blooded<br>Most fly<br>Feathers   | Pelican<br>Penguin                 |
| <b>Reptiles</b>                               | Cold blooded<br>Dry, Scaly skin<br>Lay eggs on land<br>Have lungs                | Snakes<br>Turtles<br>crocodile     |
| <b>Amphibians</b>                             | Cold blooded<br>Begin in water then land<br>Smooth moist skin helps them breathe | Frogs<br>Salamander                |
| <b>Fish</b>                                   | Cold blooded<br>Scales<br>Live in water<br>Gills                                 | Clown fish<br>Piranha<br>Blue Gill |

| <b>Invertebrates</b><br>Animals without a backbone  |
|---|
| *Invertebrates have the greatest number of animal species on Earth<br>Examples include: Butterflies, Insects, Snails, Clams, worms, Sand dollars, Sea stars, Horn sponges |

- **Vascular tissue:** A material that supports a plant and conducts nutrients.
- **Phloem:** Tissue that carries food from a plant's leaves to its cells (transports food)
- **Nonvascular plants** absorb water and food similar to sponges
  - They are much smaller than vascular plants because they do not have a water transport system and need to be low to the ground to soak up their food and water

### Plant Kingdom Classification

| <b>Vascular</b><br>Tissues carry water and food, these plants can grow tall |  | <b>Nonvascular</b><br>Don't have true roots, stems or leaves<br>Examples include: moss, Liverworts, Hornwarts |
|---|--|---|
| Plants without Seeds  | Plants with Seeds  |   |
| Examples include:<br>Ferns  | <b>Angiosperm</b><br>Flowering plant that has seeds protected by a fruit<br>Examples include:<br>Apple Trees | <b>Gymnosperm</b><br>Seeds not protected by fruit or cone<br>Examples include:<br>Pine Trees with pinecones   |