**WILD THINGS LESSON PLAN**

**BIG IDEAS/ ENDURING UNDERSTANDINGS (EU’S)**

* Living things can be sorted into groups in many ways.
* Animals are grouped, or classified, by similar characteristics.

**ESSENTIAL QUESTIONS**

* How are [organisms](http://mpalalive.org/classroom/glossary) alike and different?
* How do different organisms meet their needs for survival?
* How can we use the observable properties of organisms to group them?

**CONTENT OUTCOMES ADDRESSED**

Students will be able to

* develop a simple classification system for grouping organisms.
* recognize that individuals vary within every species, including humans.

**COMMON MISCONCEPTIONS**

Students may think that humans are not animals.

**BACKGROUND INFORMATION**

There are at least five million **species** on Earth, and some scientists believe there could be double that number. A species is a group of animals that are more like each other than they are like any other group of animals. They can breed with each other but not with members of other species. A way of sorting through all those species is to organize them by similar **properties**, or characteristics. This process is called **classification**. The following is a list of properties for each group of animals.

**Mammals**

* give birth to their young and feed them with milk.
* have hair on at least part of their body.
* have four limbs with digits ending in claws, nails, or hooves (except whales).
* breathe with lungs.
* are [warm-blooded](http://mpalalive.org/classroom/glossary).

**Birds**

* lay eggs with a hard shell.
* are covered with feathers.
* have a beak.
* have two legs.
* have two wings used for flying (ostriches and penguins are flightless).
* have hollow bones.
* are warm-blooded.

**Reptiles**

* lay eggs with leathery shells or give birth to fully-formed young.
* breathe with lungs.
* are covered with scales.
* have no legs or four legs with clawed toes.
* are [cold-blooded](http://mpalalive.org/classroom/glossary).

**Amphibians**

* lay eggs, usually in a jelly-like mass in water.
* breathe with lungs, gills, and/or their skin.
* have smooth skin without coverings.
* have four legs without claws or nails on toes.
* are cold-blooded.

**Insects**

* have three body parts: head, thorax and abdomen.
* have a single pair of antennae on the head.
* have three pairs of legs originating from the thorax.
* often have wings and can fly.

**Fish**

* lay eggs without shells in water.
* breathe with gills.
* are covered with scales or smooth, leathery skin.
* have fins but no legs or toes.
* are cold-blooded.

**VOCABULARY**

* **classification:** a systematic arrangement in groups
* **species:** a group of animals that are more like each other than they are like any other group of animals
* **property:** a special quality of something
* **mammal:** any of a class of warm-blooded vertebrates that include human beings and all other animals that nourish their young with milk produced by mammary glands and have skin usually with some hair
* **bird:** any of a class of warm-blooded egg-laying vertebrates with a body covered with feathers and forelimbs modified as wings
* **reptile:** any of a group of cold-blooded, air-breathing vertebrates (such as snakes, lizards, turtles, and alligators) that usually lays eggs and has skin covered with scales or bony plates
* **amphibian:** any organism that is able to live both on land and in water; especially, any of a class of cold-blooded vertebrates (such as frogs and salamanders) that in many respects are between fishes and reptiles
* **insect:** any of a class of arthropods (such as butterflies, true bugs, two-winged flies, bees, and grasshoppers) with a three-part body clearly divided into head, thorax, and abdomen; three pairs of jointed legs; and usually one or two pairs of wings
* **fish:** a cold-blooded vertebrate that lives and breathes in water and typically has a long, scaly, tapering body, limbs developed as fins, and a vertical tail fin