

Science of Classification

Name _____

Go to the *Life Science Safari* website at <http://vilenski.org/science/safari/menu/index.html> to complete this worksheet. A link for this site is also available at the *Kid Zone* at <http://sciencespot.net/>. Click the *Kid Zone* logo and then select *Classification of Life* from the menu.

1. What are the five characteristics of living things? (1) _____, (2) _____, (3) _____ to surroundings (4) _____ and _____, and (5) _____, _____, and _____

2. What the smallest unit of life? _____

3. How do we classify living things? List the classification groups from least to most specific.

_____ → _____ → _____ → _____ → _____ → _____ → _____

4. Return to the main menu and click the correct image to answer the questions below.

● Bacteria

How are bacteria classified? _____

How do bacteria obtain the energy they need? _____

What are the three different shapes of bacteria? _____, _____, _____

● Protists

How are protists classified? _____, _____-like, or _____-like

Where can you find protists? _____

● Fungus

Give two examples of fungi. _____

What do fungi feed on? _____

● Plants

How would plants be classified: unicellular or multicellular? _____

How do plants obtain the energy they need? _____

What cell structure provides support for plants? _____

● Animals

How would animals be classified: unicellular or multicellular? _____

How do animals obtain the energy they need? _____

How many species of animals have been identified and named? _____

5. Find the link to learn more about how animals are classified (on the animal page) and answer these questions.

● What are vertebrates? _____

● Classify each animal group as vertebrate (V) or invertebrate (I).

Fish _____	Sponge _____	Worms _____	Reptile _____
Echinoderms _____	Annelid _____	Amphibian _____	Mollusks _____
Aves (Birds) _____	Arthropods _____	Mammals _____	Cnidarians _____

- Describe each type of symmetry used for classification

Asymmetrical - _____

Radially - _____

Bilaterally - _____

6. Use the links on the Classification of Animals page to identify each **vertebrate** animal group. Some groups may be listed more than once!

_____ We are ectotherms with many adaptations to allow us to live in water, such as gills, fins and scales.

_____ We lay eggs on land that have a tough, leathery shell.

_____ We are endotherms that lay hard-shelled eggs on land.

_____ We lay our eggs in water where they will hatch, but we will be able to live on land as adults.

_____ As adults we have lungs, but can also breathe through our smooth, moist skin.

_____ We are ectotherms with dry, scaly skin.

_____ We are ectotherms mostly hatched from eggs laid in water and have gills early in life.

_____ We can be classified as jawless, bony, and cartilaginous

_____ We have bodies that are covered in feathers and beaks.

_____ We are endotherms that have hair and produce milk in mammary glands to feed our young.

7. Use the links on the Classification of Animals page to identify each **invertebrate** animal group. Some groups may be listed more than once!

_____ We obtain our food by filtering out particles from water as it passes through our bodies.

_____ We are arthropods with six legs, antennae, and three body segments.

_____ We have bristle-like segments called setae that help us move.

_____ We have hollow bodies and stinging cells.

_____ We are arthropods with five pairs of legs, antennae, and jaws used for crushing food

_____ We are spiny-skinned invertebrates that live on the ocean bottom.

_____ We are planarians and tapeworms.

_____ We are the segmented worms with tube-shaped bodies that are divided into sections.

_____ We are arthropods that have two pairs of legs per body segment and are usually plant-eaters.

_____ We are arthropods that have one pair of legs per body segment and are usually meat-eaters.

_____ We are soft-bodied invertebrates that often have shells.

_____ We can be classified as univalves, bivalves, and cephalopods.

_____ We are arthropods with eight legs and two body segments.

Are you ready for a challenge?

Return to the main page for the Life Science Safari and click the link for expedition (self-test) Choose Vertebrate Classification Expedition. How many animals are shown in the picture? _____ Show your teacher.

Have more time? Explore the other sites and/or games on the Classification of Life page at the Kid Zone at <http://sciencespot.net/>.