



Taxonomy Activity

Childhood Learning Objective

Language Development: Listening and understanding, speaking and communicating

Literacy: Phonological awareness

Science: Scientific knowledge

Creative Arts: Art

Social and Emotional Development: Self-concept, self-control, cooperation

Approaches to Learning: Initiative and curiosity

Physical Health and Development: Fine motor skills

Learning Goals/Objectives

Understand the difference between languages

Understand the difference between animals, plants, insects, etc.

Understand that all living things are categorized

Understand how paleontologists name dinosaurs

Background Information

There are different types of paleo-environments that paleontologists work in. From dry deserts to wet marshlands, paleontologists uncover fossils from various time periods and see evidence of their environments in the geologic record. In these fossil records, are where paleontologists find dinosaurs and other fossils.

Many people wonder how dinosaurs and fossils are named. This activity will show the student the science behind the name and how modern day scientists are still using this technique to name new species of life.

Whole Group Classroom Activity

Materials:

- Taxonomy Activity Sheet
- Pencils





Preparation:

1. Print out the Taxonomy Activity Sheets, one per student.
2. Purchase pencils if needed.

Procedure

1. Explain to the students how all living things are put into categories to separate them from other species.
 2. Explain how some animals can have the same genus name, but different species name. (i.e. a wolf and a coyote have different species names, but the same genus name)
 3. Explain to the students that paleontologists name dinosaurs and other fossils using Greek words/letters.
 4. Talk to the students how the Greek alphabet is much different than the English alphabet.
 5. Have the students decipher the English words for the dinosaurs and put the Greek letters under the dinosaurs to spell out the Greek words.
 6. On the second part of the activity, have the students translate the Greek letters into English letters to give you the names of the dinosaurs.
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Curriculum Integration

Activity Center #1 – Bone Labeling Activity

Materials:

- Bone Labeling Activity Sheet
- Pencils

Procedure:

1. Each student is given a Bone Labeling Activity sheet.
2. The students must write down where the bones go on the *Camarasaurus*.
3. The teacher can then talk about Anatomy and how important it is in paleontology.

Activity Center #2 – World Dinosaur Map

Materials:

- World Map Sheet
- Scissors
- Colored Pencils
- Glue

Procedure:



1. Have students label the continents on the map. (They can also label the oceans as well, but this is optional) The students can also color the continents with colored pencils as well.
2. Have the students color the dinosaurs on the second sheet and then cut them out.
3. Have the students glue the dinosaurs onto the continents that they are found in.
4. Discuss how the continents were once a large land mass and talk about continental drift/plate tectonics.

Activity Center #3 – Dinosaur Name Mix-up

Materials:

- Dinosaur Name Mix-Up Sheet
- Pencil

Procedure:

1. Each student receives a dinosaur name mix-up sheet.
2. The student rearranges the letters to spell out the correct dinosaur/reptile/etc. on the mix-up sheet.
3. This activity helps the students identify letters and the proper use and placement of them to make words.

Activity Center #4 – Dinosaur Variation Chart

Materials:

- Plastic Dinosaurs
- Dinosaur Variation Chart Sheet

Procedure:

1. Print out the Dinosaur Variation Chart Sheet.
2. Have the students separate the plastic dinosaurs into the various categories.
3. Count the dinosaurs in each category and write these numbers down on the Variation Chart Sheet.
4. Have the students make a graph on the Variation Chart Sheet and see which category of dinosaurs has the highest variations, and which ones have the lowest.
5. Have the students take turns and discuss the variations they found.
6. Compare this to modern animals and talk about how paleontologists use modern zoology and biology for comparison to extinct dinosaurs and how we can use these variations to figure out the dinosaur's behavior millions of years ago.

Vocabulary

Ammonite: The coiled, chambered fossil shell of an ammonoid.

Baculite: Any ammonite of the genus Baculites, of the Cretaceous Period, having a straight shell with a spiral tip.

Dinosaur: Any chiefly terrestrial, herbivorous or carnivorous reptile of the extinct orders Saurischia and Ornithischia, from the Mesozoic Era, certain species of which are the largest known land animals. Greek for Terrible Lizard.

Fossil: Any evidence of past life in the rock record, over ten thousand years old.



Marine: Saltwater or freshwater environment.

Paleontologist: A scientist who studies fossils over ten thousand years old.

Paleontology: The study of ancient life.

Terrestrial: Land Environment

Resources:

Children

Everything You Need to Know about Dinosaurs by DK ISBN: 978-1465415752

The Dinosaur Book by DK ISBN: 1465474765

Dinosaurs: A Visual Encyclopedia 2nd Edition by DK ISBN: 1465470115

The Shy Stegosaurus of Cricket Creek by Evelyn Sibley Lampman ISBN: 1930900370

Teachers

Dinosaurs: The Encyclopedia by Donald F. Glut ISBN: 0786472227

Your Inner Fish: A Journey into the 3.5 Billion Year History of the Human Body by Neil Shubin ISBN: 0307277453

The Wyoming

Websites:

www.wyomingdinosaurcenter.org

www.dictionary.com

Dinosaur Descriptions

Allosaurus: Any of various carnivorous dinosaurs of the genus *Allosaurus* of the late Jurassic and early Cretaceous Periods. *Allosaurs* were similar to but smaller than tyrannosaurs.

Apatosaurus: A very large sauropod dinosaur of the genus *Apatosaurus* (or *Brontosaurus*) of the late Jurassic Period. *Apatosaurs* had a long neck and tail and a relatively small head.

Camarasaurus: A plant-eating sauropod dinosaur of the genus *Camarasaurus* and closely related genera, having a small head, long neck, and short forelimbs, and reaching a length of 40 feet (12.2 meters)

Diplodocus: A huge herbivorous dinosaur of the genus *Diplodocus*, from the Late Jurassic Epoch of western North America, growing to a length of about 87 feet (26.5 meters).

Stegosaurus: Type of dinosaur, 1892, from Modern Latin order name Stegosauria (O.C. Marsh, 1877), from comb. form of Greek stegos "roof" (from stege "covering," stegein "to cover," from PIE root *(s)teg- "cover," especially "cover with a roof" (cf. Sanskrit sthag- "cover, conceal, hide;" Latin tegere "to cover;" Lithuanian stegti "roof;" Old Norse þekja , Old English þeccan "thatch;" Dutch dekken , German decken "to cover, put



under roof;" Irish tuigiur "cover," tech "house;" Welsh toi "thatch, roof," ty "house") + -saurus. The back-armor plates in the fossilized remains look like roof tiles.

Supersaurus: A huge sauropod dinosaur of the genus *Supersaurus*, of W North America, that reached a length of about 130 feet (40 meters).

Triceratops: Any of various dinosaurs of the genus *Triceratops*, of the late Cretaceous Period, having a bony crest on the neck, a long horn over each eye, and a shorter horn on the nose.

Tyrannosaurus rex: A large, carnivorous (see carnivore) dinosaur that walked on two legs. Its name is from the Greek words meaning "tyrant" and "lizard" and the Latin word for "king."

