

Jurassic Fishbowl

Early 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 that different animals lived in different environments Understand the difference between dinosaurs and marine reptiles Understand the difference between vertebrates and invertebrates

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.

Paleontology is not just the study of dinosaurs. The world has more marine deposits than terrestrial. Marine fossils are found on every continent in the world, and we have a better understanding of these animals than most anything else due to the abundance of these fossils.

Whole Group Classroom Activity

Materials:

- Jurassic Fishbowl Sheet
- Crayons
- Markers
- Construction Paper



- Scissors
- Glue



Preparation:

- 1. Print out Jurassic Fishbowl sheets, one per student.
- 2. Purchase crayons, markers, scissor, construction paper and glue if needed.

Procedure

- 1. Use the crayons and markers to draw various marine life in the fishbowl. Have the student's think of marine reptiles and cephalopods such as ammonites and baculites.
- 2. Have the students use various colors and emphasize that we as paleontologists don't know the color of these animals, so we have to use our imagination. Talk about camouflage and mimicry.
- 3. Allow the students to talk about their fishbowls and describe their eco-systems.
- 4. Have the students hang up their fishbowls for display in the classroom.

Curriculum Integration

Activity Center #1 – What Does a Paleontologist Find?

Materials:

- What Does a Paleontologist Find? Sheet
- Pencils

Procedure:

- 1. Each student is given the "What Does a Paleontologist Find?" sheet.
- 2. The teacher asks out loud, What are some things Paleontologists Find?
- 3. The students draw plants/animals/dinosaurs that paleontologists find in a dig site.

Activity Center #2 – Leaf Impression

Materials:

- Clay
- Various real leaves

Procedure:

- 1. Have students take balls of clay and flatten them.
- 2. Have the students push in the leaves into the clay to reveal an impression of the leaf
- 3. Discuss with the students how this is similar to how paleontologists find leaf impressions in the rock, which are trace fossils.
- 4. Discuss trace fossils: Evidence of past life such as trackways, leaf impressions, fossil coprolite (poop).



Activity Center #3 – Dinosaur Stamps

Materials:

- Dice
- Dinosaur Stamps
- Colored Paper

Procedure:

- 1. Each student rolls a dice
- 2. The student counts the number of dots on the dice
- 3. The student then stamps their paper with the number of dots they rolled on the dice, and in the same pattern. They call out the type/name of dinosaur as they are stamping their paper.
- 4. This activity helps the students count and use patterns while naming the dinosaurs.

Activity Center #4 – Dinosaur Dig

Materials:

- Plastic Dinosaurs
- Sand
- Sand Table or small Tote
- Dry Paintbrushes

Procedure:

- 1. Put the sand in the table or tote along with the plastic dinosaurs.
- 2. Use the brushes to uncover the plastic dinosaurs
- 3. Emphasize using the brushes slowly and carefully like paleontologists do.

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

Have You Seen My Dinosaur by Jon Surgal ISBN: 978-8375856396 Dinosaur Activity Book for Kids by Activity Slayer ISBN: 1729099785

Dinosaur A-Z: For Kids who Really Love Dinosaurs by Roger Priddy ISBN: 978-0312492540

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

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 backarmor 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."

