Jurassic Food Web

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
Understand the difference between herbivores and carnivores

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.

The Jurassic Period occurred for about 50 million years. During this time, inland seas progressed into the Rocky Mountain region of the United States, and then regressed. Giant sauropod dinosaurs ruled the land and pterosaurs ruled the skies. In Wyoming, we find fossils from both theses inland seas and terrestrial deposits.

Whole Group Classroom Activity

Materials:

- Jurassic Food Web Sheet
- Scissors

- Colored pencils
- Construction Paper
- Glue

Preparation:

1. Print out the Jurassic Food Web sheets, one per student.
2. Purchase colored pencils, scissors, construction paper and glue if needed.

Procedure

1. Cut out each dinosaur, fish, reptile, etc.
2. Have the students use the colored pencils to color the dinosaurs, fish, etc. 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. Separate the dinosaurs, reptiles, etc. into different categories; herbivores and carnivores.
4. Have the students glue the carnivores onto a sheet of construction paper, and then glue the herbivores onto another sheet of construction paper. (Glue the plant cutouts with the herbivores, and glue insects, fish and frog with the carnivores)
5. Have the students hang up their Construction papers for display in the classroom and talk about the difference between herbivores and carnivores.

Curriculum Integration

Activity Center #1 – What Does a Paleontologist Find?

Materials:

- What Does a Paleontologist Find? Sheet
- Pencils

Procedure:

1. Each student is given a What Does a Paleontologist Find sheet.
2. The teacher asks out loud, "What are some things Paleontologists Find?".
3. The students draw plant/animals/dinosaurs that a paleontologist would find in a digsite.

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)
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 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

National Geographic Little Kids First Big Book of Dinosaurs by Catherine D. Hughes ISBN: 1426308469
National Geographic Kids Ultimate Dinopedia 2nd Edition by Don Lessem ISBN: 1426329059
The Dinosaur Museum: An Unforgettable, Interactive Virtual Tour through Dinosaur History by National Geographic Society ISBN: 14260303351
X-ray Dinosaurs: And Other Prehistoric Creatures by Susan R. Stoltz ISBN: 0998092045

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.”