

Grouping Dinosaurs

Activity for Grades K–4

Introduction

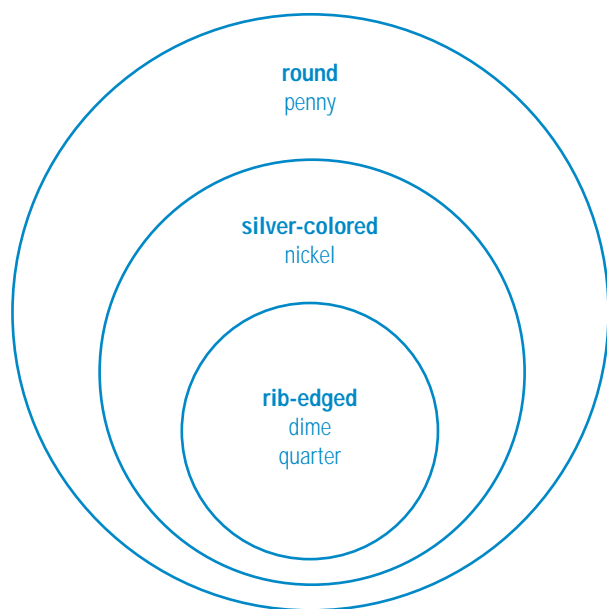
Paleontologists have identified over 700 species of dinosaurs. How do they determine which dinosaurs are related? At the American Museum of Natural History, scientists group animals using a method called cladistics. They look for unique features, such as a hole in the hip socket, that the animals share. Animals with like features are grouped together. A chart, called a cladogram, shows these relationships. Using cladistics, scientists can show how animals are linked to one another through a long and complex history of evolutionary changes.

Objective

In this activity, students will be introduced to sets and subsets as they group coins and dinosaurs.

Materials

- A set of coins (penny, nickel, dime, quarter)
- A copy of **Grouping Dinosaurs** for each group
- Construction paper
- Safety scissors
- Fun tack or masking tape
- Glue sticks



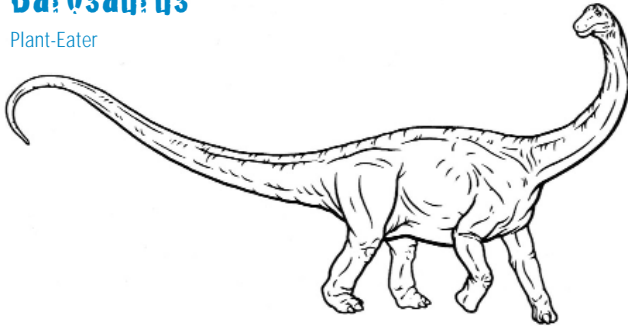
Procedure

1. Display the coins. Tell students they are going to group the coins. Have students work in groups. Distribute a set of coins, and construction paper to each group. Tell students that as you make the diagram on the board, they are to copy it on their papers.
2. Ask students to look at the coins and find one thing they all have in common. (They are all round.) Draw a large circle on the chalkboard. At the top of the circle right *round*. Place the coins inside the circle using fun tack.
3. Then have students find one thing that three of the coins share. (Three are silver-colored.) Draw a circle within the larger circle and label it *silver-colored*. Move the nickel, dime and quarter into that circle.
4. Have students find one thing that two of the remaining coins share. (Two are rib-edged.) Draw a circle within the second circle and label it *rib-edged*. Move the dime and quarter into that circle.
5. Have students identify the set (round coins) and the subsets (silver and rib-edged). Tell groups they will now work together to group dinosaurs.
6. Distribute **Grouping Dinosaurs**, construction paper, scissors, and glue sticks to each group. Have students decide how to sort the dinosaurs (meat eater / plant eaters, two- / four-legged, small / large). Have them arrange the dinosaurs into sets and subsets and glue them in place.
7. Have groups compare their sets. Discuss the different ways groups classified their dinosaurs. Display students' work. (Answers will vary.)

Grouping Dinosaurs

Barosaurus

Plant-Eater



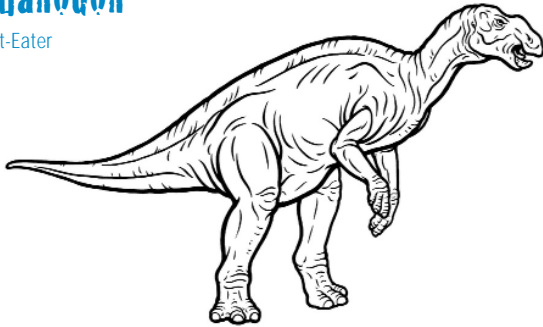
Coelophysis

Meat-Eater



Iguanodon

Plant-Eater



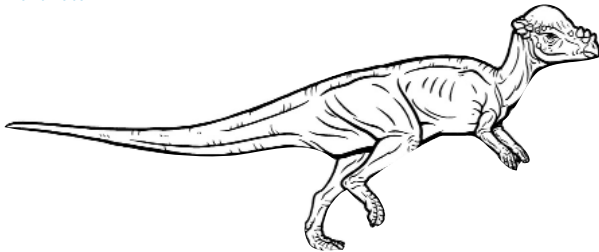
Ornithomimus

Meat-Eater



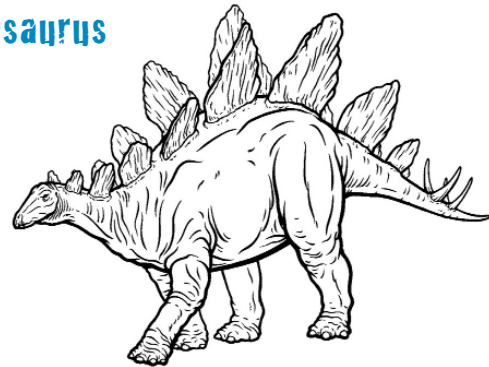
Pachycephalosaurus

Plant-Eater



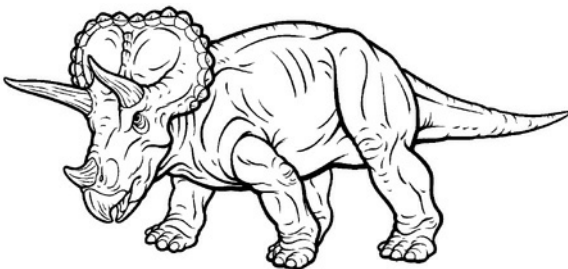
Stegosaurus

Plant-Eater



Triceratops

Plant-Eater



Tyrannosaurus rex

Meat-Eater

