

TRB 4:4 - Investigation 4 - Dinosaurs Tracks

Summary

Students will make inferences and interpretations from sets of dinosaur tracks.

Group Size

Large Groups

Materials

- ["Dinosaur Tracks" handout](#) (pdf)
for each student
Lined paper for the students to write their interpretation of what happened based on the tracks.
- [Resources List](#) (pdf)

Background for Teachers

Dinosaur tracks are one type of fossil that has recently received attention in Utah. Near St. George on a ten-acre section of the Johnson Farm, over 1,000 dinosaur tracks have been found. According to the *Utah Outdoors* article by Dave Webb on the Internet, "Most of the tracks are actually 'negative impression' casts which appear as bumps on the stone. The area was the bottom of an ancient freshwater lake in the center of the super-continent Pangea. Footprints left in the mud filled with silt and sand, and more sand was deposited over the top. The mixture eventually solidified into sandstone and mudstone, forming the casts. Now when the slabs are flipped over, the casts appear, much like Jell-O popping out of a mold." Scientists have determined that most of the tracks were made by "dilophosaurus-like" animals and are three toed, 13 -18 inches long. Some smaller tracks have been found along with skin prints and tail drag impressions.

For more information on the Johnson Farm Dinosaur Walkway visit the [website](#). How fossil dinosaur tracks are formed in sedimentary rock is one of the concepts to be taught as part of Standard IV. With this background information to set the stage, we would propose to do an activity where students interpret what they think happened based on sets of dinosaur tracks.

Intended Learning Outcomes

1. Use a Science Process and Thinking Skills
4. Communicate Effectively Using Science Language and Reasoning

Instructional Procedures

Pre-Assessment/Invitation to Learn

If you remember, a few days back we made trace fossils. Do you remember what trace fossils are? (tracks, trails, skin prints, burrows) Trace fossils are fossils that tell us the most about ancient animal behavior. When we study imprints we can use inference or interpretation skills. With a piece of paper, draw a simple scene of animal footprints with other footprints. Trade papers with a partner. Have your partner tell his/her interpretation of the scene of the animal activities.

Instructional Procedures

Give each student a dinosaur track sheet and lined paper.

Have each student study the "dinosaur tracks" and develop an explanation of what happened at the time the tracks were made.

Have each student infer in story form on the line paper what they think took place as these tracks were made. Each must support the inferences they made by telling how they reached that conclusion.

Extensions

Fine Arts/Visual Arts-

Some students may want to create their own dinosaur track sheet, being as creative as possible.
(*Standard III, Objective 2*)

Language Arts-

Have each student with his/her own book choose a few pictures to interpret what is going on in the picture. Have each tell orally their own interpretations of one of the pictures. (*Standard I, Objective 1*)

Homework & Family Connections

Allow the students to take home a copy of the "Dinosaur Tracks" sheet. Encourage them to tell members of their family their interpretation of the tracks. They in turn may ask family members to come up with a different interpretation of the tracks.

Have the students take home the book that was made in class with everyone's track drawing. Have each member take turns interpreting pictures.

Assessment Plan

In this activity, it is not whether the student is wrong or right about what happened that is important. It is the science process and thinking skills that go into developing an interpretation of the tracks that is important. Look to see how they used the data (dinosaur tracks) to construct a reasonable conclusion.

Examine their own work to see if they understand drawing tracks for others to interpret.

Authors

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