



Dinosaur Traces

Teacher's Notes

Goals

This activity introduces students to the type of evidence found at a typical dinosaur dig. Students will mimic a paleontologist by taking crayon rubbings of simulated bone impressions. Each dinosaur skeletal remains is contained on six plaster plaques. Three different dinosaurs are included. After the rubbings are taken, the student is challenged to reconstruct the complete skeleton and identify the dinosaur to which it belonged.

Supplies Needed

The experiment is designed to be done individually. Enough equipment is included for 30 students. It is recommended that a group of 3-4 students share the 6 plaster casts for an individual dinosaur. 6 Dinosaur Traces kits (2 of each dinosaur) are included in the equipment box.

Equipment Included in Kit:

- **Permanent Equipment**
 1. 2 Tyrannosaurs Rex fossil kits (6 plaster 'remains')
 2. 2 Triceratops fossil kits (6 plaster 'remains' each)
 3. 2 Velociraptor fossil kits (6 plaster 'remains' each)
 4. 15 pairs of scissors
 5. 4 copies of Discussion Questions (laminated)
 6. 1 copy of each dinosaur skeleton with bond identification sheet (laminated)
 7. Dinosaur fact sheets with timeline -- laminated, 10 copies of each dinosaur
 8. Lesson Plans provided by Skullduggery, Inc. (check red notebook)

- **Consumables**
 1. 30 Black or red lumber crayons
 2. 6 rolls scotch tape
 3. 15 glue sticks or roll-on glue
 4. Large blank newsprint for tracings (approximately 1 sheets per student per dinosaur)
 5. Light colored (9 x 12) construction paper (2 sheets per student per dinosaur)
 6. 30 Tyrannosaurs Rex outlines (optional -- use in place of construction paper)
 7. 30 Velociraptor outlines (optional -- use in place of construction paper)
 8. 30 Triceratops outlines (optional -- use in place of construction paper)

Specialized Equipment Sources

The plaster plaques containing the dinosaur skeletons are from the *Dino Traces* kit developed by Skullduggery, Inc. 624 South B Street, Tustin, CA 92680, (800) 336-7745, and FAX (714) 832-1215. Their kit comes with complete lesson plans for grades 3-6. These complement the condensed information given here.

Instructors Prep and Hints

- Check the crayons in the Dinosaur Traces kits. Replace if necessary.
- Check the supply of construction paper. Each student will need 2 pieces of 9 x 12 inch paper for each dinosaur made. Add more if needed.
- Check the glue sticks. Replace if needed
- Check the scotch tape. Replace if needed
- Check the supply of the student handout. Duplicate more if necessary.
- There are two ways this lab can be done. The most straightforward is to have a student work on a single dinosaur. If they finish early, they can try reconstructing one of the other dinosaurs.
- If you are working with younger students, then you can give them an outline of the dinosaur as a guide. Reconstruction is then simply using the fossil tracings as puzzle pieces and fitting them inside the dinosaur. If the outlines are used, then you will not need the construction paper.
- Demonstrate to your students how to take a rubbing of the *fossils*
- Before beginning the lab, read to your students *Finding a Dinosaur Bone and Dinosaurs on Display* given on pages 4 and 5 of the Lesson Plan. (The Lesson Plan is located in the red notebook) The procedure given in the student handout closely follows the Lesson Plan Level 1 instructions except that they will be using 3 different dinosaurs.
- When doing the activity, divide the girls into 6 groups. Give each group one dinosaur to work on. You can keep the identity of the dinosaur a secret if you wish.

Instructors Background Material

See the Lesson Plan in the red notebook for background and discussion material.