

FOSSILS, ROCKS, & MORE

Attention all mini geologists and paleontologists! Use your senses to investigate trilobite-fish fossils, and rocks.

Big Idea

Explore fossils and minerals through excavation and problem-solving.

Standards

IELDS 13.B Use tools and technology to assist with science and engineering investigations.	Students will use microscopes, magnifying lenses, scales and more to explore fossils.
NGSS 3-L S4-1 Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.	Students will analyze the fossils to assess where they might have lived and how they might have moved.
CCSS.MATH.CONTENT.K.MD.A 2 Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference.	Students will make direct comparisons between fossils to see which is taller/shorter, wider/thinner, heavier/lighter.

Materials

Excavation site:

- Fossils or fossil replicas
- Sandbox with grid
- Tools: shovels, brushes, hand lens, buckets, clipboard with grid sheet

Lab:

- Tools: rulers, field guides, microscopes, scale, paper and pen for observational drawings
- Actual (and casts) fossils and minerals
- Lab coats
- Books

Setup

Create two spaces: An excavation site and a lab. At the excavation site, hide the craft sticks (or even better, real fossils) in the sand. Provide tools for digging in the sand next to or in the sand table. At the lab, provide a space for students to draw and investigate up close using microscopes and other tools.

Directions

1. Encourage students to explore the sand excavation site. *(For students who do not want to touch the sand, they can start at the lab.)*
2. Once a student finds a fossil, they can bring it over to the lab to investigate and draw.

Investigation Questions: What tool can we use to find the fossil? How do these tools work differently? What do you see? How does it look under the microscope? How does it feel? What is different between you and the fossil? What is the same between you and the fossil? Which fossil is the heaviest? Which fossil is the lightest? Which fossil is the longest? Which fossil is the shortest? Where did this organism live? How did this organism move?