

## FOSSIL EXPLORATION STATIONS

### *Teacher Directions:*

*Put students in groups and assign them to a station. Note: not all students will start at station 1, so be sure they start at the correct spot in their notebooks. Give groups roughly 10 minutes at each station before having them rotate (you can adjust the time based on the length of the class period). Some stations take longer than others, so I always remind students that if they finish early, they need to stay at their station until it is time to rotate. Discussing ideas and observations as they work through the stations should be encouraged.*

### **Station 1: Similarities and Differences**

At this station, students will examine the two specimens with hand lenses and make sketches of each trilobite on their notebook sheets. They will then describe the similarities and differences between the two specimens in writing.

### **Station 2: Observation and Inference**

Students will look at two specimens at these stations: a T-rex tooth cast and a Deinonychus Killer Toe. First, students will list things they notice about each of the specimens. Then they will make inferences about each specimen based on their observations.

### **Station 3: Making Inferences Based on Evidence**

Students will observe the Apatosaurus vertebra (long) and an Ichthyosaur vertebra (short) at this station. After observing the two vertebrae, students will make an inference about which animal lived on land and which lived in water. Finally, students will be asked to write or draw what their evidence or reasoning is for their inference.

### **Station 4: Inferences from Evidence**

At this station, students will record the names of the two specimens: Aquilops jaw and Epicyon jaw. They will then take the playdough and press each tooth specimen separately into the playdough. Students will observe the teeth indentations and infer whether each animal is a carnivore or an herbivore. Last, they will record their reasoning for their inferences.

### **Station 5: Predictions**

Students will look at the skull of the Trimerorhachis (eyes on the top of the skull) and make a detailed sketch in their notebook. Students should take special note of where the specimens' eyes are located.

### **Station 6: Structure and Function**

At this station, students will look at a specimen with eyes on the side of the skull and make a detailed sketch in their notebook. Students should take special note of where these specimen's eyes are located.



**Station 7: Reading Station**

Students use the reading and their drawings from Stations 5 and 6 to make a claim about the reason for the placement of the animals' eyes. *Trimerorhachis* eyes were on the top of its skull because it probably lived on the bottom of creeks/lakes and was an ambush predator. Also clues: nostril placement on top of head because it needed to breathe.

**Station 8: Structure and Function**

Students will look at a specimen with eyes in front of the skull at this station and make a detailed sketch in their notebooks. Students should take special note of where this specimen's eyes are located.

**Station 9: Collecting Data Like a Paleontologist**

At this station, students will use the measurement tools provided to collect data they think a paleontologist would collect, such as the specimen's name, a sketch or photo, and the location where the sample was found. Also, measuring in cm or mm, how long is the skull? How wide? Are the teeth pointed or flat? Where are the eyes placed? They will then discuss with their group or whole class how these observations help form a description of the animal. They will also measure the distance between the ridges on the ammonite's body. The measurement between rings shows the growth of the ammonite that year.

