

FOSSIL FRENZY

1. **DESCRIPTION**: Teams will be assessed on their knowledge of geologic time, fossils, and the fossilization process.

TEAM OF UP TO: 2

APPROXIMATE TIME: 50 min.

2. **EVENT PARAMETERS**: Must bring writing instruments. Teams may bring **the Official Fossil List** and a **binder** containing information in any form from any source.

3. **THE COMPETITION**: This event will be run in a station format. Teams will rotate through stations that assess any or all of the following topics:

- a. Be able to identify conditions required for a plant or an animal to become fossilized.
- b. Be able to distinguish between modes of preservation: petrification, mineral replacement, cast/mold, imprint, encasement in amber/copal, mummification, freezing, entrapment in tar/asphalt.
- c. Be able to make inferences about dinosaurs from footprints, teeth, body structures and coprolites.
- d. Understand the Geologic Time Scale and be able to distinguish between era, period, and epoch and know where the **fossils** and humans fit in on that time scale.
- e. Identification of the fossils on the Official Fossil List from pictures, replicas, actual specimens, descriptions, etc.
- f. Dinosaurs: Distinguish between carnivore, herbivore, and omnivore. Identify the geologic time period (Triassic, Jurassic, or Cretaceous) the dinosaur is from.
- g. Identify the environments: marine, terrestrial, fresh water, etc. for all species listed on the Official Fossil List.

4. **SAMPLE QUESTIONS/TASKS**:

- a. List samples in order from oldest to most recent.
- b. Who discovered this fossil and where?
- c. Who named it? What does the name mean?

5. **SCORING**: Points will be awarded for the accuracy of responses. Ties will be broken by the accuracy or quality of answers to pre-selected questions chosen by the event leader.

Official Fossil List

INVERTEBRATES

Corals
Trilobites
Crustaceans (shrimp, lobster, crabs, barnacles)
Brachiopods
Bivalves (Clams, mussels, oysters)
Cephalopods (nautiloids, ammonoids, belemnoids)
Echinoids (sea urchins, sand dollars)
Asteroids (sea stars, brittle stars)

VERTEBRATES

Fish

Sharks (Shark Teeth) & rays
Bony Fish (Osteichthyans)
Ichthyosaurs
Plesiosaurs
Pterosaurs

Dinosaurs

Allosaurus
Ankylosaurus
Apatosaurus
Archaeopteryx
Coelophysis
Deinonychus
Diplodocus
Parasaurolophus
Plateosaurus
Velociraptor

Tyrannosaurus rex
Iguanodon
Stegosaurus
Triceratops

TRACE FOSSILS

Trails, Borings
Tracks, Trackways
Burrows, Tubes
Coprolites

OTHER

Amber
Petrified wood