

Fossil Frenzy

1. **DESCRIPTION:** Teams will be assessed on their knowledge of geologic time, fossils, dinosaurs, and the fossilization process.
2. **ESSENTIAL STANDARD ALIGNMENT:** 4.E.2
3. **TEAM OF UP TO:** 2
4. **MAXIMUM TIME:** 60 min.
5. **TEAMS:** Must bring writing instruments. Teams may bring one 8.5” x 11” two-sided page of notes containing information in any form from any source.
6. **EVENT LEADERS:** Will provide a hands-on event with all necessary items, objects, materials, questions, and response sheets for participants to complete stations.
7. **SAFETY REQUIREMENTS:** None
8. **IMPOUND:** No
9. **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 dinosaurs and humans fit in on that time scale.
 - e. Identification of specimens on the Official Dinosaur and Fossil List from pictures, replicas, actual specimens, descriptions, etc.
 - f. Identification of the geologic time period (Triassic, Jurassic, or Cretaceous) each dinosaur on the Official List is from.
 - g. Be able to distinguish between carnivores, herbivores, and omnivores when given evidence based on jaws, teeth, footprints, etc.
 - h. Be able to distinguish the type of environment: marine, terrestrial, fresh water, etc. for all species listed on the Official Fossil List or when given clues from the fossil record.
10. **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.
11. **EVENT RESOURCES:**
See the Event Resources tab on our website at www.sciencenc.com for instructions, videos and more.

2020 Official Fossil and Dinosaur List
Students will have to know common names only!

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) and rays
Bony Fish *Osteichthyans
Ichthyosaurs
Plesiosaurs
Pterosaurs

Dinosaurs

Acrocanthosaurus
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