

Paleo Detectives

Description: Students will prepare charts and learn to identify various fossils. Competitors will use a geologic time scale to answer questions about fossil organisms.

Number of Participants: 1-2

Approximate time: 20-30 minutes

The Competition:

1. Contestants will be allowed 20-30 minutes to identify as many fossils or models of fossil organisms from a selected group of specimens that include:

coral, trilobite, brachiopod, mollusk (clam, snail, ammonite), fish (Dunkleosteus, sharks), ichthyosaurs (fish-like reptiles), pterosaurs (flying reptiles), dinosaurs (Triceratops, Allosaurus, Tyrannosaurus, Ankylosaurus, Apatosaurus, Deinonychus, Stegosaurus, Maiasaurus), birds (Archaeopteryx), mammals (mastodon, mammoth, horse, sabre-toothed cat), fern, horsetail

4. Contestants will be asked the fossils' name, what they ate, where they lived (on land, in the ocean, etc.) and how long they have been found on earth (geologic time). They will need to know if they still exist today (are extant) or are extinct and the type of fossil evidence that exists (bones, impressions, etc.)

5. Contestants may bring in completed charts to aid in the identification of specimens and answering questions. These charts should be shown to the event supervisor before taking the test.

Scoring: Each specimen correctly identified and each question answered correctly will count as one point. *If needed, contestants' charts will be evaluated for accuracy and detail to be used to break ties.*

Each contestant may bring one chart for fossils which may be multiple pages (they may use a folder or binder to hold them). They may include the Geologic Time Scale. Below are suggestions on how to order contestant's charts. The headings in each of these show the information that will be needed for competition.

Fossil Chart

Organism's Name	Where it lived	What it ate	When it lived, extinct or extant?	Type of fossil evidence
Barnisaurus	Terrestrial (on TV)	Vegetables	Cenozoic, extant	Coprolites, bones

Fossils- Smithsonian Handbooks: Fossils, by David Ward; DK Publishing, 2002

Paleoportal.org http://paleoportal.org/index.php?globalnav=fossil_gallery§ionnav=main

Geologic Time-

https://www.nature.nps.gov/geology/education/ESW_classroom_posters/2012_GeologicTimeNP_S_Poster_lores.pdf

<http://www.geology.com/time.htm>

More resources under the "more" tab at ghelso.weebly.com