Science I.D.

Grades 6-8
Educational Program Guide

OAS Science Practices 1, 2, 3, 4, 5, 6, 7, 8 |

Program Overview

In this 50 minute, hands-on session students will learn how scientists classify and name specimens based on species characteristics. Students will work in small groups to measure, describe and use quantitative and qualitative data to identify several specimens from the museum's collection. The session will end with a discussion of how classification isused by scientists to understand the natural history of a species.

Objectives

After participating in this program, students will be able to:

- Be able to identify important characteristics of mammals, amphibians, reptiles, birds, trilobite fossils and/or marine shells.
- Understand the purpose of identifying and classifying organisms scientifically.
- Understand and use qualitative and quantitative characteristics to identify organisms.

Background

Scientists classify organisms based on qualitative and quantitative data in order to learn more about them. They group organisms according to shared characteristics like backbones or scales. Taxonomy is the practice and science of classification. Scientists use taxonomy to assign a binomial or scientific name to specimen. In binomial nomenclature, a species is assigned a two-part, Latin name that is a combination of the genus and species.

At the Museum

Hall of Ancient Life

After your school group program, head to the Hall of Ancient Life to see a number of different trilobites from the Cambrian, and Ordovician periods.

Hall of Natural Wonders

Also, visit the Hall of Natural Wonders to identify some mammal, bird, reptile and amphibian specimens used in the program

Vocabulary

Taxonomy	The science of identifying, naming and classifying specimens.
Scientific Name	The two-part name of a specimen which includes its genus and species.
Genus	A group of like species with common ancestry.
Species	A specific natural population that can interbreed and produce fertile offspring.
Plastron	The flat, bottom portion of a turtle shell.
Carapace	The upper portion (top) of a turtle shell. The carapace on most turtle shells is domed.
Dental Formula	The number, type and placement of teeth in an animal's mouth.