

# Maryland Standards of Learning Addressed by the IMAX® Film SEA MONSTERS: A Prehistoric Adventure in 3D

### Grade 4

# Earth/Space Science

- B. Earth History
- 2. Recognize and explain that fossils provide evidence about the plants and animals that lived long ago and about the nature of the environment at that time.
  - a) Recognize and explain that the remains or imprints of plants or animals can become fossils.
  - b) Describe the physical structures of an animal or plant based on its fossil remains.

### Life Science

- D. Evolution
- 1. Explain that individuals of the same kind differ in their characteristics, and sometimes the differences give individuals an advantage in surviving and reproducing.
  - b) Explain that the characteristics of an organism affect its ability to survive and reproduce.

# F. Ecology

- 1. Explain ways that individuals and groups of organisms interact with each other and their environment.
  - a) Identify and describe the interactions of organisms present in a habitat.
    - Competition for space, food and water.
    - Roles within food chains and webs; scavengers, decomposers, producers, consumers.

#### Grade 6

#### Life Science

- D. Evolution
- 1. Explain that in any particular environment, the growth and survival of organisms and species depend on the physical conditions.
  - b) Explain that in all environments organisms with similar needs may compete with one another for resources including food, space, water, air and shelter.
  - f) Describe how sediments of sand and smaller particles are gradually buried and are cemented together by dissolved minerals to form solid rock; and describe that such fossils provide evidence for the long history of changing life forms whose remains are found in the rocks.

## Grade 8

## Earth/Space Science

- B. Earth History
- 2. Explain how sedimentary rock is formed periodically, embedding plant and animal remains and leaving a record of the sequence in which the plants and animals appeared and disappeared.

- a) Recognize how different types of fossils are formed, such as petrified remains, imprints, molds and casts.
- b) Recognize and explain that the fossil record of plants and animals describes their changes over time.

# Life Science

# D. Evolution

- 1. Recognize and describe that evolutionary change in species occurs as a result of natural variation in organisms and environmental changes.
  - a) Recognize and describe that gradual (climactic) and sudden (floods and fires) changes in environmental conditions affect the survival of organisms and populations.
  - b) Recognize that adaptations may include variation in structures, behaviors, or physiology, such as spiny leaves on a cactus, birdcalls, and antibiotic resistant bacteria.
  - c) Recognize and describe that extinction occurs when the adaptive traits of a population do not support its survival.