

2009 Sharks and Rays Workshop, Dauphin Island Sea Lab
Alabama Course of Study: Science Objectives Met

Grade K, Life Science, Content Standard 6

Compare size, shape, structure, and basic needs of living things.

1st Grade, Life Science, Content Standard 4

Describe survival traits of living things, including color, shape, size, texture, and covering.

1st Grade, Life Science, Content Standard 6

Recognize evidence of animals that no longer exist.

2nd Grade, Life Science, Content Standard 6

Identify characteristics of animals, including behavior, size, and body covering.

4th Grade, Life Science, Content Standard 6

Classify animals as vertebrates or invertebrates and as endotherms or ectotherms.

5th Grade, Life Science, Content Standard 8

Identify major body systems and their functions, including the circulatory system, respiratory system, excretory system, and reproductive system.

5th Grade, Life Science, Content Standard 9

Describe the relationship of populations within a habitat to various communities and ecosystems.

7th Grade, Life Science, Content Standard 1

Describe characteristics common to living things, including growth and development, reproduction, cellular organization, use of energy, exchange of gases, and response to the environment.

7th Grade, Life Science, Content Standard 3

Relate major tissues and organs of the skeletal, circulatory, reproductive, muscular, respiratory, nervous, and digestive systems to their functions.

7th Grade, Life Science, Content Standard 4

Describe organisms in the six-kingdom classification system by their characteristics.

9th – 12th Grade, Biology Core, Content Standard 11

Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry, body coverings, and locomotion.

- 9th – 12th Grade, Biology Core, Content Standard 12**
Describe protective adaptations of animals, including mimicry, camouflage, beak type, migration, and hibernation.
- 9th – 12th Grade, Biology Core, Content Standard 16**
Identify density-dependent and density-independent limiting factors that affect populations in an ecosystem.
- 9th – 12th Grade, Aquascience Elective Core, Content Standard 6**
Describe adaptations that allow organisms to exist in specific aquatic environments.
- 9th – 12th Grade, Aquascience Elective Core, Content Standard 7**
Describe processes and environmental characteristics that affect growth rates of aquatic animals.
- 9th – 12th Grade, Aquascience Elective Core, Content Standard 8**
Determine effects of the fishing industry on the aquatic environment.
- 9th – 12th Grade, Environmental Science Elective Core, Content Standard 7**
Identify reasons coastal waters serve as an important resource.
- 9th – 12th Grade, Geology Elective Core, Content Standard 6**
Explain the concept of geological time within the framework of the geologic time scale.
- 9th – 12th Grade, Geology Elective Core, Content Standard 13**
Describe the formation and characteristics of river systems.
- 9th – 12th Grade, Geology Elective Core, Content Standard 15**
Identify geological regions in Alabama and the southeastern United States.
- 9th – 12th Grade, Marine Science Elective Core, Content Standard 1**
Select appropriate equipment for scientific field investigations in marine environments.
- 9th – 12th Grade, Marine Science Elective Core, Content Standard 2**
Differentiate among freshwater, brackish water, and saltwater.
- 9th – 12th Grade, Marine Science Elective Core, Content Standard 6**
Describe components of major marine ecosystems, including estuaries, coral reefs, benthic communities, and open-ocean communities.
- 9th – 12th Grade, Marine Science Elective Core, Content Standard 9**
Arrange various forms of marine life from most simple to most complex.

- 9th – 12th Grade, Marine Science Elective Core, Content Standard 10**
Describe the anatomy and physiology of representative aquatic organisms.
- 9th – 12th Grade, Marine Science Elective Core, Content Standard 11**
Describe positive and negative effects of human influence on marine environments.
- 9th – 12th Grade, Marine Science Elective Core, Content Standard 12**
Identify various careers related to marine science.
- 9th – 12th Grade, Zoology Elective Core, Content Standard 1**
Define basic anatomical terminology associated with the study of animals.
- 9th – 12th Grade, Zoology Elective Core, Content Standard 5**
Use taxonomic groupings to differentiate structure and physiology of vertebrates with dichotomous keys.
- 9th – 12th Grade, Zoology Elective Core, Content Standard 6**
Identify factors used to distinguish species, including behavioral differences and reproductive isolation.
- 9th – 12th Grade, Zoology Elective Core, Content Standard 7**
Explain how species adapt to changing environments to enhance survival and reproductive success, including changes in structure, behavior, or physiology.