

TOUCH LAB:

Alabama Course of Study – SCIENCE:

1st:

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

- Classifying plants and animals according to physical traits
- Describing a variety of habitats and natural homes of animals

2nd:

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

3rd:

8.) Identify how organisms are classified in the Animalia and Plantae kingdoms.

4th:

5.) Describe the interdependence of plants and animals.

- Identifying characteristics of organisms, including growth and development, reproduction, acquisition and use of energy, and response to the environment

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

5th:

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

- Describing the relationship between food chains and food webs
- Describing symbiotic relationships

7th:

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.

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

5.) Identify major differences between plants and animals, including internal structures, external structures, methods of locomotion, methods of reproduction, and stages of development.

7.) Describe biotic and abiotic factors in the environment.

- Classifying organisms as autotrophs or heterotrophs

9-12th:

Marine Biology:

9.) Arrange various forms of marine life from most simple to most complex.

- Identifying characteristics of ocean-drifting organisms

Examples: phytoplankton, zooplankton

- Identifying characteristics of marine invertebrates

Examples: Porifera, Arthropoda

- Identifying characteristics of marine vertebrates

Examples: fishes, reptiles, birds, mammals

- Describing adaptations in the marine environment

10.) Describe the anatomy and physiology of representative aquatic organisms.

Biology:

12.) Describe protective adaptations of animals, including mimicry, camouflage, beak type, migration, and hibernation.

Zoology:

4.) Use taxonomic groupings to differentiate the structure and physiology of invertebrates with dichotomous keys.

- Identifying examples and characteristics of Porifera
- Identifying examples and characteristics of Cnidaria
- Identifying examples and characteristics of Mollusca
- Identifying examples, characteristics, and life cycles of Arthropoda
- Identifying examples and characteristics of Echinodermata

5.) Use taxonomic groupings to differentiate structure and physiology of vertebrates with dichotomous keys

- Identifying examples and characteristics of the three classes of fish
- Identifying examples and characteristics of Reptilia
- Identifying examples and characteristics of Aves
- Identifying examples and characteristics of Mammalia

7.) Explain how species adapt to changing environments to enhance survival and reproductive success, including changes in structure, behavior, or physiology.

OCEAN LITERACY: ESSENTIAL PRINCIPLES AND FUNDAMENTAL CONCEPTS:

5 The ocean supports a great diversity of life and ecosystems.

a Ocean life ranges in size from the smallest virus to the largest animal that has lived on Earth, the blue whale.

c Some major groups are found exclusively in the ocean. The diversity of major groups of organisms is much greater in the ocean than on land.

d Ocean biology provides many unique examples of life cycles, adaptations, and important relationships among organisms (symbiosis, predator-prey dynamics and energy transfer) that do not occur on land.

i Estuaries provide important and productive nursery areas for many marine and aquatic species