



Sea Turtles

Ohio Academic Standards (Grades 3-8)

Below is a list of Ohio Science Academic Standards discussed during the teaching of **Sea Turtles**.

Life Sciences

3-5 Benchmark A: Differentiate between the life cycles of plants and animals.

3.1 Compare the life cycles of different animals including birth to adulthood, reproduction and death (e.g., egg-tadpole-frog, egg-caterpillar-chrysalis-butterfly).

3-5 Benchmark B: Analyze plant and animal structures and functions needed for survival and describe the flow of energy through a system that all organisms use to survive.

3.2 Relate animal structures to their specific survival functions (e.g., obtaining food, escaping or hiding from enemies).

3.3 Classify animals according to their characteristics (e.g., body coverings and body structure).

3-5 Benchmark C: Compare changes in an organism's ecosystem/habitat that affect its survival.

3.4 Use examples to explain that extinct organisms may resemble organisms that are alive today.

3.6 Explain how changes in an organism's habitat are sometimes beneficial and sometimes harmful.

5.4 Summarize that organisms can only survive in ecosystems in which their needs can be met (e.g., food, water, shelter, air, carrying capacity and waste disposal). The world has different ecosystems and distinct ecosystems support the lives of different types of organisms.

5.6 Analyze how all organisms, including humans, cause changes in their ecosystems and how these changes can be beneficial, neutral or detrimental (e.g., beaver ponds, earthworm burrows, grasshoppers eating plants, people planting and cutting trees and people introducing a new species).



6-8 Benchmark B: Describe the characteristics of an organism in terms of a combination of inherited traits and recognize reproduction as a characteristic of living organisms essential to the continuation of the species.

6.4 Recognize that an individual organism does not live forever; therefore reproduction is necessary for the continuation of every species and traits are passed on to the next generation through reproduction.

7.8 Investigate the great diversity among organisms.

6-8 Benchmark D: Explain how extinction of a species occurs when the environment changes and its adaptive characteristics are insufficient to allow survival (as seen in evidence of the fossil record).

7.4 Investigate how overpopulation impacts an ecosystem.

8.5 Investigate how an organism adapted to a particular environment may become extinct if the environment, as shown by fossil record, changes.

Scientific Inquiry

3-5 Benchmark B: Organize and evaluate observations, measurements and other data to formulate inferences and conclusions.

3.2 Discuss observations and measurements made by other people.

3.3 Read and interpret simple tables and graphs produced by self/others.

3.5 Record and organize observations (e.g., journals, charts and tables).

4.2 Analyze a series of events and/or simple daily or seasonal cycles, describe the patterns and infer the next likely occurrence.

5.2 Evaluate observations and measurements made by other people and identify reasons for any discrepancies.

5.3 Use evidence and observations to explain and communicate the results of investigations.

3-5 Benchmark C: Develop, design and safely conduct scientific investigations and communicate the results.



3.6 Communicate scientific findings to others through a variety of methods (e.g., pictures, written, oral and recorded observations).

4.3 Develop, design and conduct safe, simple investigations or experiments to answer questions.

5.6 Explain why results of an experiment are sometimes different (e.g., because of unexpected differences in what is being investigated, unrealized difference in the methods used or in the circumstances in which the investigation was carried out, and because of errors in observations).

6-8 Benchmark B: Analyze and interpret data from scientific investigations using appropriate mathematical skills in order to draw valid conclusions.

8.3 Read, construct and interpret data in various forms produced by self and others in both written and oral form (e.g., tables, charts, maps, graphs, diagrams and symbols).

Scientific Ways of Knowing

3-5 Benchmark C: Explain the importance of keeping records of observations and investigations that are accurate and understandable.

3.2 Keep records of investigations and observations and do not change the records that are different from someone else's work.

4.2 Record the results and data from an investigation and make a reasonable explanation.

4.3 Explain why keeping records of observations and investigations is important.

5.5 Keep records of investigations and observations that are understandable weeks or months later.

6-8 Benchmark A: Use skills of scientific inquiry processes (e.g., hypothesis, record keeping, description and investigation).

6.2 Describe why it is important to keep clear, thorough and accurate records.