



**Climate Change in the Gulf of Mexico
Discovery Hall Programs – Dauphin Island Sea Lab**



Alabama Course of Study: Science Objectives Met

Grade K, Physical Science, Content Standard 2

Identify the sun as Earth's source of light and heat.

1st Grade, Physical Science, Content Standard 1

Select appropriate tools and technological resources needed to gather, analyze, and interpret data.

1st Grade, Earth & Space Science, Content Standard 8

Recognize daily changes in weather, including clouds, precipitation, and temperature.

2nd Grade, Earth & Space Science, Content Standard 10

Identify the impact of weather on agriculture, recreation, the economy, and society.

3rd Grade, Physical Science, Content Standard 3

Describe ways energy from the sun is used.

3rd Grade, Earth & Space Science, Content Standard 12

Identify conditions that result in specific weather phenomena, including thunderstorms, tornadoes, and hurricanes.

3rd Grade, Earth & Space Science, Content Standard 13

Describe ways to sustain natural resources, including recycling, reusing, conserving, and protecting the environment.

5th Grade, Physical Science, Content Standard 1

Identify evidence of chemical changes through color, gas formation, solid formation, and temperature change.

6th Grade, Earth & Space Science, Content Standard 1

Identify global patterns of atmospheric movement, including El Niño, the Gulf Stream, the jet stream, the Coriolis Effect, and global winds that influence local weather.

6th Grade, Earth & Space Science, Content Standard 2

Describe factors that cause changes to Earth's surface over time.

6th Grade, Earth & Space Science, Content Standard 3

Describe water and carbon biogeochemical cycles and their effects on Earth.

7th Grade, Life Science, Content Standard 6

Describe evidence of species variation due to climate, changing landforms, interspecies interaction, and genetic mutation.

7th Grade, Life Science, Content Standard 7

Describe biotic and abiotic factors in the environment.

8th Grade, Physical Science, Content Standard 6

Define solution in terms of solute and solvent.

9th – 12th Grade, Biology Core, Content Standard 14

Trace biogeochemical cycles through the environment, including water, carbon, oxygen, and nitrogen.

9th – 12th Grade, Aquascience Elective Core, Content Standard

Explain the importance of biogeochemical cycles in an aquatic environment.

9th – 12th Grade, Aquascience Elective Core, Content Standard 7

Describe processes and environmental characteristics that affect growth rates of aquatic animals.

9th – 12th Grade, Earth & Space Science Elective Core, Content Standard 2

Describe effects on weather of energy transfer within and among the atmosphere, hydrosphere, biosphere, and lithosphere.

9th – 12th Grade, Earth & Space Science Elective Core, Content Standard 3

Explain how weather patterns affect climate.

9th – 12th Grade, Environmental Science Elective Core, Content Standard 1

Identify the influence of human population, technology, and cultural and industrial changes on the environment.

9th – 12th Grade, Environmental Science Elective Core, Content Standard 2

Evaluate various fossil fuels for their effectiveness as energy resources.

9th – 12th Grade, Environmental Science Elective Core, Content Standard 4

Identify the impact of pollutants on the atmosphere.

9th – 12th Grade, Geology Elective Core, Content Standard 14

Explain the interaction of the continuous processes of waves, tides, and winds with the coastal environment.

9th – 12th Grade, Marine Science Elective Core, Content Standard 4

Recognize interactions between the atmosphere and the ocean.

9th – 12th Grade, Marine Science Elective Core, Content Standard 5

Discuss physical and chemical properties of saltwater.

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.

Ocean Literacy Principles Met

1. The Earth has one big ocean with many features.
2. The ocean and life in the ocean shape the features of the Earth.
3. The ocean is a major influence on weather and climate.
6. The ocean and humans are inextricably interconnected.
7. The ocean is largely unexplored.