

## Suitcase Oceanography Lessons 1 and 2

### Alignment to National Science Education Standards and Benchmarks

#### **Inquiry**

- Identify questions that can be answered through scientific investigation.
- Use appropriate tools and techniques to gather, analyze, and interpret data.
- Develop descriptions, explanations, predictions and models using evidence.
- Think critically and logically and to make the relationship between evidence and explanations.

#### **Physical Sciences**

##### *Properties and changes of properties in matter*

- A substance has characteristic properties, such as density, a boiling point, and solubility, all of which are independent of the amount of the sample. A mixture of substances can often be separated into the original substances using one more characteristic properties.

#### **Earth Science**

##### *Structure of the Earth System*

- Water, which covers the majority of Earth's surface, circulates through the crust, oceans, and atmosphere in what is known as the 'water cycle.'
- Water is a solvent, as it passes through the water cycle it dissolves minerals and gases and carries them to the ocean.

#### **Science and Technology**

##### *Understanding about science and technology*

- Many different people in different cultures have made and continue to make contributions to science and technology.

#### **History of Nature of Science**

##### *Science as a human endeavor*

- Women and men of various social and ethnic backgrounds – and with diverse interests, talents, qualities, and motivations – engage in the activities of science, engineering, and related fields.

#### **Thinking Processes and Skills**

Relating

Comparing

Communicating

Observing (especially the observation of patterns)

Predicting

Measuring

Graphing

## **ALIGNMENT TO OCSS (Content Standards)**

### *Matter*

- Describe and analyze chemical and physical changes.

### *Earth and Space Science*

- Explain and analyze changes occurring within the lithosphere, hydrosphere, and atmosphere of Earth.

### *Scientific Inquiry*

- Make observations. Ask questions or form hypotheses based on those observations, which can be explored through scientific investigations.
- Collect, organize, and summarize data from investigations.
- Summarize, analyze, and interpret data from investigations.