



Wonders of Water

Ohio Academic Standards (3-8)

Below is a list of Ohio Academic Standards discussed during the teaching of **Wonders of Water**.

SCIENCE

Standard: Earth and Space Science

3-5 Benchmark C: Describe Earth's resources including rocks, soil, water, air, animals and plants and the ways in which they can be conserved.

5.6 Investigate ways Earth's renewable resources (e.g., fresh water, air, wildlife and trees) can be maintained.

3-5 Benchmark D: Analyze weather and changes that occur over a period of time.

4.2 Identify how water exists in the air in different forms (e.g., in clouds, fog, rain, snow and hail).

Standard: Scientific Inquiry

3-5 Benchmark A: Use appropriate instruments safely to observe, measure and collect data when conducting a scientific investigation.

4.1 Select the appropriate tools and use relevant safety procedures to measure and record length, weight, volume, temperature and area in English and metric units.

5.1 Select and safely use the appropriate tools to collect data when conducting investigations and communicating findings to others (e.g., thermometers, timers, balances, spring scales, magnifiers, microscopes and other appropriate tools).

6-8 Benchmark A: Explain that there are differing sets of procedures for guiding scientific investigations and procedures are determined by the nature of the investigation, safety considerations and appropriate tools.

6.2 Choose the appropriate tools and instruments and use relevant safety procedures to complete scientific investigations.

7.4 Choose the appropriate tools and instruments and use relevant safety procedures to complete scientific investigations.

8.1 Choose the appropriate tools and instruments and use relevant safety procedures to complete scientific investigations.



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

- 3.5 Record and organize observations (e.g., journals, charts and tables).
- 5.2 Evaluate observations and measurements made by other people and identify reasons for discrepancies.
- 5.3 Use evidence and observations to explain and communicate the results of investigations.

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

- 6.4 Explain that a single example can never prove that something is always correct, but sometimes a single example can disprove something.

Standard: 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.
- 4.4 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 explanation).

- 6.1 Identify that hypotheses are valuable even when they are not supported.
- 6.2 Describe why it is important to keep clear, thorough and accurate records.



MATHEMATICS

Standard: Measurement

- 3.1 Identify and select appropriate units of measuring:
 - a. length-miles, kilometers and other units of measure as appropriate;
 - b. volume-capacity (gallons);
 - c. weight-ounces, pounds, grams or kilograms
 - d. temperature-degrees (Fahrenheit or Celsius)

- 3.4 Read thermometers on both Fahrenheit and Celsius scales.

- 8.3 Use appropriate levels of precision when calculating with measurements.

Standard: Data Analysis and Probability

- 3.1 Collect and organize data from an experiment, such as recording and classifying observations or measurements, in response to a question posed.

- 5.4 Determine appropriate data to be collected to answer questions posed by students or teachers, collect and display data, and clearly communicate findings.

- 5.5 Modify initial conclusions, propose and justify new interpretations and predictions as additional data are collected.

SOCIAL STUDIES

Standard: Citizenship Rights and Responsibilities

- 3-5 Benchmark A: Explain how citizens take part in civic life in order to promote the common good.
 - 3.1 Describe how people help to make the community a better place in which to live including:
 - a. Working to preserve the environment;
 - b. Helping the homeless;
 - c. Restoring houses in low-income areas;
 - d. Supporting education;
 - e. Planning community events;
 - f. Starting a business.

Standard: Skills and Methods

- 6-8 Benchmark D: Work effectively in a group.



6.7

Work effectively to achieve group goals:

- a. Engage in active listening;
- b. Provide feedback in a constructive manner;
- c. Help establish group goals;
- d. Take various roles within a group;
- e. Recognize contributions of others.