

What Are Clouds And How Are They Formed?

ALIGNMENTS TO BENCHMARKS (NSES K-4)

Inquiry (A)

Abilities Necessary To Do Scientific Inquiry

- Ask a question about objects, organisms, and events in the environment
- Plan and conduct a simple investigation
- Employ simple equipment and tools to gather data and extend the senses
- Use data to construct a reasonable explanation
- Communicate investigations and explanations

Understandings about Scientific Inquiry

- Asking and answering questions and comparing the answer with what scientists know about the world
- Types of investigations include describing objects, events, and organisms; classifying them; and experimenting
- Scientists develop explanations using observations and what they know about the world
- Scientists make the results of their investigations public and review and ask questions about other scientists' work.

Physical Science (B)

Properties of Objects and Materials

- Materials can exist in different states – solid, liquid, and gas. Some common materials, such as water, can be changed from one state to another by heating or cooling.

Light, Heat, Electricity, and Magnetism

- Heat can be produced in many ways. Heat can move from one object to another by conduction.

Earth and Space Science (D)

Properties of Earth Materials

- Earth materials are solid rocks and soils, water, and the gasses of the atmosphere.

Changes in the Earth and Sky

- The surface of the earth changes.
- Weather changes from day to day and over the seasons. Weather can be described by measurable quantities, such as temperature, wind direction, and speed, and precipitation.

Science and Technology (E)

Understanding about science and technology

- People have always had questions about their world. Science is one way of answering questions and explaining the natural world.

- Women and men of all ages, backgrounds, and groups engage in a variety of scientific and technological work.
- Tools help scientists make better observations, measurements, and equipment for investigations. They help scientists see, measure, and do things that they could not otherwise see, measure, and do.

History and Nature of Science (G)

Science as a human endeavor

- Many people choose science as a career and devote their entire lives to studying it. Many people derive great pleasure from doing science.

Thinking Processes (from FOSS)

Relating

Organizing

Comparing

Communicating

Observing

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ALIGNMENTS TO OCSS (Benchmark 1 – Grade 3)**

*** Many of the relevant Benchmarks for this lesson are from Benchmark 2 – Grade 5, I have included these and noted them with an *)**

Matter

- Describe objects according to their physical properties
- Describe changes that occur in matter
- * Identify substances and the exist in different states of matter
- * Describe the ability of matter to change state by heating and cooling

Energy

- Identify common types and uses of energy
- * Identify forms of various types of energy and their effect on matter
- * Describe examples of energy transfer

Earth and Space Science

- Recognize physical differences in Earth materials.

Scientific Inquiry

- Make observations. Ask questions or form hypotheses based on those observations, which can be explored through simple investigations.
- Plan a simple investigation
- Collect data from an investigation
- Use the data collected to explain the results