

7th Grade Core Essential Questions for the Matter Unit

Standard 1: Students will understand the structure of matter.

Objective 1: Describe the structure of matter in terms of atoms and molecules.

Enduring Understanding:

All matter is made up of atoms that are too small to see; they are in constant motion. Atoms can combine to form molecules. Scientific knowledge about atoms has changed over time and all models of atoms have limitations.

Essential Questions

1. How can we understand something we cannot see?
2. How has our idea of the atom changed?
3. How are an atom and a molecule different?
4. How are solids, liquids, and gasses different?
5. What limitation do models of atoms have?

Standard 1: Students will understand the structure of matter.

Objective 2: Accurately measure the characteristics of matter in different states.

Enduring Understanding:

Matter can be measured with mass, volume and density.

Essential Questions

1. What is mass? How is it measured?
2. What is volume? How is it measured?
3. What is density? How is it measured?
4. What are relative densities of common substances?
5. How can you measure the density of a gas?

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Standard 1: Students will understand the structure of matter.

Objective 3: Investigate the motion of particles

Enduring Understanding

Particles are in constant motion. The motion can be measured by changes in temperature, volume, and diffusion.

Essential Questions

1. How can a substance be made to change state?
2. What is diffusion? Give an example.
3. What happens to the volume of most substances as they are heated?
4. How do structures have to be built to account for temperature changes?