Name: _____ Date: _____

Solids, Liquids, and Gases

Circle group

All things are made of matter. Matter is anything that takes up space and has mass. It comes in three main forms. They are solid, liquid, and gas.

A solid keeps its own shape. A rock, a pencil, and an ice cube are solids. You can pick them up. They do not change shape.

A liquid has no shape of its own. It takes the shape of what holds it. Pour water in a cup. It looks like the cup. Pour it in a bowl. It looks like the bowl.

A gas has no shape. It spreads to fill any space. The air in a balloon is a gas. It fills the whole balloon.

Water can be all three. When it gets cold enough, it freezes. It turns to ice, a solid. When it gets hot enough, it boils. It turns to water vapor, a gas.

Questions

1. What is matter?

_____

_____

2. What are the three main forms of matter?

_____

_____

3. How is a solid not like a liquid?

_____

_____

4. Why does air fill the whole balloon?

_____

_____

5. What happens to water when it gets cold enough?

_____

_____

6. You pour milk into a glass. Is milk a solid, a liquid, or a gas? How do you know?

_____

_____

Words to know

matter: anything that takes up space and has mass
solid: matter that keeps its own shape
liquid: matter that flows and takes the shape of its container
gas: matter that spreads out to fill any space
freezes: turns from a liquid into a solid because it is very cold

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Solids, Liquids, and Gases

Triangle group

Everything around you is made of matter. Matter is anything that takes up space and has mass. It comes in three main forms: solid, liquid, and gas.

A solid keeps its own shape. A rock, a pencil, and an ice cube are solids. You can pick them up, and they do not change shape.

A liquid has no shape of its own. It takes the shape of whatever holds it. Water poured into a cup looks like the cup. Pour it into a bowl, and it looks like the bowl.

A gas has no shape either, and it spreads out to fill any space. The air in a balloon is a gas. It fills the whole balloon.

Water can be all three. When it gets cold enough, it freezes into ice, which is a solid. When it gets hot enough, it boils and turns into water vapor, which is a gas.

Questions

1. What is matter?

_____

_____

2. What are the three main forms of matter?

_____

_____

3. How is a solid different from a liquid?

_____

_____

4. Why does the air in a balloon fill the whole balloon?

_____

_____

5. What happens to water when it gets cold enough?

_____

_____

6. Milk is poured from a carton into a glass. Is milk a solid, a liquid, or a gas? How do you know?

_____

_____

Words to know

matter: anything that takes up space and has mass
solid: matter that keeps its own shape
liquid: matter that flows and takes the shape of its container
gas: matter that spreads out to fill any space
freezes: turns from a liquid into a solid because it is very cold

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Solids, Liquids, and Gases

Square group

Everything that surrounds you is composed of matter. Matter is anything that occupies space and has mass, and it exists in three main forms: solid, liquid, and gas.

A solid maintains its own definite shape. A rock, a pencil, and an ice cube are all examples of solids. You can pick them up, and they do not change shape.

A liquid, by contrast, has no shape of its own. Instead, it takes the shape of whatever container holds it. Water poured into a cup resembles the cup, but if you pour it into a bowl, it resembles the bowl.

A gas also lacks a shape of its own, and it spreads out to fill any available space. The air inside a balloon is a gas, which is why it fills the entire balloon.

Remarkably, water can exist in all three forms. When it becomes cold enough, it freezes into ice, which is a solid. When it becomes hot enough, it boils and transforms into water vapor, which is a gas.

Questions

1. How does the passage define matter?

_____

_____

2. Name the three main forms in which matter exists.

_____

_____

3. What is the main difference between a solid and a liquid?

_____

_____

4. Explain why the air inside a balloon fills the entire balloon.

_____

_____

5. What happens to water when it becomes cold enough?

_____

6. Milk is poured from a carton into a glass. Which form of matter is milk, and what evidence supports your answer?

Words to know

matter: anything that takes up space and has mass
solid: matter that keeps its own shape
liquid: matter that flows and takes the shape of its container
gas: matter that spreads out to fill any space
freezes: turns from a liquid into a solid because it is very cold

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: Solids, Liquids, and Gases

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: Solids, Liquids, and Gases

Easier · 146 words · Flesch-Kincaid grade 0.4

1. Anything that takes up space and has mass.
2. Solid, liquid, and gas.
3. A solid keeps its own shape. A liquid takes the shape of what holds it.
4. A gas spreads out to fill any space.
5. It freezes and turns to ice, a solid.
6. A liquid. It takes the shape of the glass.

Triangle: Solids, Liquids, and Gases

This passage · 151 words · Flesch-Kincaid grade 2.4

1. Anything that takes up space and has mass.
2. Solid, liquid, and gas.
3. A solid keeps its own shape. A liquid takes the shape of whatever holds it.
4. A gas spreads out to fill any space.
5. It freezes into ice, which is a solid.
6. A liquid, because it takes the shape of the glass.

Square: Solids, Liquids, and Gases

Harder · 170 words · Flesch-Kincaid grade 5.5

1. Anything that occupies space and has mass.
2. Solid, liquid, and gas.
3. A solid maintains its own shape. A liquid takes the shape of whatever container holds it.
4. A gas spreads out to fill any available space.
5. It freezes into ice, which is a solid.
6. A liquid, because it takes the shape of the glass.