25SCHOOLS

FREE LEARNING NOTES FOR ZAMBIA

GRADE 2 · TERM 2

Science

Materials around us

Lesson notes for learners · Competence-Based Curriculum

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Look around you. A desk, a bottle of water and the air in a balloon are all materials. Materials around us are called matter. In this note you will learn the three forms of matter and how matter can change from one form to another.

AFTER THESE NOTES YOU SHOULD BE ABLE TO

- Say that matter is found as solid, liquid or gas
- Give examples of each form of matter
- Say what happens when ice melts, water freezes and spirit evaporates

KEY WORDS

Matter	The materials around us.
Solid	Matter that keeps its own shape and size.
Liquid	Matter that flows and takes the shape of its container.
Gas	Matter that is hard to see and fills the space it is in.

1 Three forms of matter

How can we group the materials around us. Look at a stone, water and air in a balloon. How are they different. Which one is hard. Which one can flow. Which one cannot be seen but fills the balloon. Which one keeps its shape.

The stone is a solid. A solid has a fixed shape and size. A book, a pencil, a spoon and a toy are also solids.

Water is a liquid. A liquid flows. It has no fixed shape but takes the shape of its container. Milk, juice and cooking oil are also liquids.

Air is a gas. A gas cannot be seen easily and cannot be touched, but it fills space. Cooking gas and steam are also gases.

Form	Example	What it does
Solid	Stone, book	Keeps its shape
Liquid	Water, milk	Flows
Gas	Air in a balloon	Fills space

Figure 1. Three forms of matter

2 Find matter in your classroom

Walk around your classroom with your friends. Look for solids, liquids and gases. A desk and a book are solids. Water in a bottle is a liquid. Air is a gas.

Tell your class what you found. Your teacher may ask: In what form is this material. How can you tell.

3 Matter can change

Matter can change from one form to another. Look at an ice cube. It is a solid. When it is heated on a brazier or put in the sun, it turns into water. A solid that is heated can melt and become a liquid.

Pour water into a small container and put it in a freezer. After some time the water turns into ice. When a liquid becomes very cold, it freezes and becomes a solid.

Put a little methylated spirit on a plate. After some time it is gone. The liquid has changed into a gas and gone into the air. This is evaporation. Water can also change into gas when it is heated.

Always take care. Do these activities with your teacher and keep away from fire.

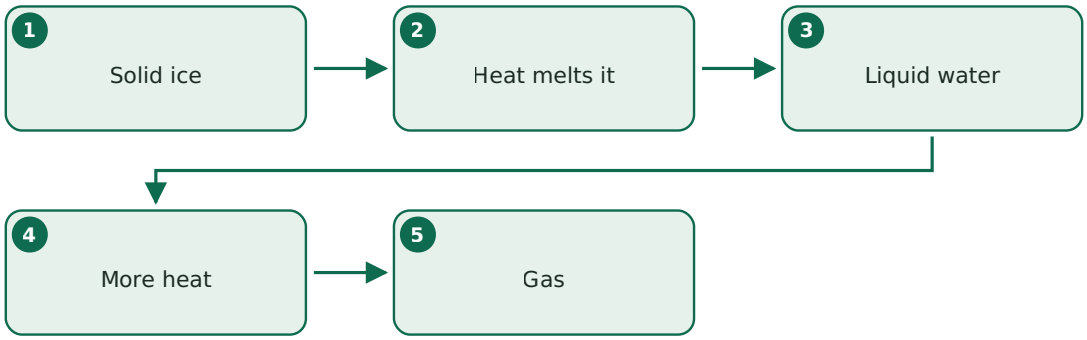


Figure 2. Ice melts into water, then water changes to gas

TRY THIS

At home, find one solid, one liquid and one gas. Tell your family how you know each one.

REMEMBER

- Matter is found as solid, liquid or gas
- A solid keeps its shape, a liquid flows and a gas fills space
- Heated ice melts into water
- Very cold water freezes into ice
- A liquid can evaporate and become a gas

? Check yourself

1. Name the three forms of matter.
2. Which form of matter keeps its own shape.
3. What happens to ice when it is put in the sun.
4. What do we call a liquid turning into a gas.
5. Chanda walks around the classroom and sees a desk, a bottle of water and a balloon filled with air. She tells her teacher what she found. (a) Which one is a solid. (b) Which one is a liquid. (c) Which one is a gas.
6. Mwila puts a little water in a container in a freezer. Later she takes it out and finds it hard. Her friend asks her what happened. (a) What did the water turn into. (b) What form of matter is it now. (c) What will happen if she puts it in the sun.

ANSWERS

1. Solid, liquid and gas.
2. A solid.
3. It melts and becomes water.
4. Evaporation.
5. (a) The desk. (b) The water. (c) The air in the balloon.
6. (a) Ice. (b) A solid. (c) It will melt and become water.

Written by 25Schools to follow the Grade 2 Science syllabus of the Zambian competence-based curriculum. Free for learners to read, download and share. More notes and quizzes at 25schools.com.