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FREE LEARNING NOTES FOR ZAMBIA

GRADE 2 · TERM 2

Science

Soluble and insoluble materials

Lesson notes for learners · Competence-Based Curriculum

INSIDE

1. Mixing experiment
2. Soluble and insoluble
3. Sort the materials
4. Check yourself

Put sugar in a cup of water and stir. What happens. Put sand in water and stir. What happens. Some materials mix with water and some do not. In this note you will find out which is which.

AFTER THESE NOTES YOU SHOULD BE ABLE TO

- Say what soluble and insoluble mean
- Say what dissolve means
- Sort materials into soluble and insoluble groups

KEY WORDS

Dissolve	To mix completely with water so you cannot see it.
Soluble	A material that dissolves in water.
Insoluble	A material that does not dissolve in water.

1 Mixing experiment

What happens when we put materials in water. What would happen if we put salt in a cup of water. Write down what you think will happen.

Your group gets four containers marked A, B, C and D. You also get sugar, chalk, sand and salt. Half fill each container with water. Add one spoon of a material to each container, one at a time. Stir and watch. Which material did you put in the container. What happened after you stirred. Who guessed correctly.

2 Soluble and insoluble

Some materials, like sugar, salt and soda, are soluble. They dissolve in water. Some materials, like chalk and sand, are insoluble. They do not dissolve in water.

Soda here means sodium bicarbonate. You can test more materials, such as soda, rice and chalk, and find out which group they belong to.

Dissolving is not the same as melting. A material that dissolves mixes with the water. Melting is when a solid changes to a liquid when heated.

Soluble in water	Insoluble in water
Sugar	Chalk
Salt	Sand
Soda	

Figure 1. Soluble and insoluble materials

3 Sort the materials

Look at picture cards of materials in water. Sort them into soluble and insoluble. Ask yourself: Which materials dissolved in water. Which did not dissolve.

Complete a worksheet and write soluble or insoluble for each material.

TRY THIS

At home, put a pinch of salt in one cup of water and a little sand in another cup. Stir both. Tell your family which one dissolved and which one did not.

REMEMBER

- Some materials dissolve in water and some do not
- Soluble materials dissolve in water, such as sugar, salt and soda
- Insoluble materials do not dissolve in water, such as chalk and sand
- Dissolving is not the same as melting

? Check yourself

1. What does soluble mean.
2. Name one insoluble material.
3. Name one soluble material.
4. Is dissolving the same as melting.
5. Mwamba stirs a spoon of salt in a cup of water and a spoon of sand in another cup. His teacher asks what he sees. (a) Which one disappears. (b) Which one stays. (c) Which one is insoluble.

6. Chanda puts sugar, chalk, salt and sand in four containers of water and stirs each. She groups the materials for her class. (a) Which two are soluble. (b) Which two are insoluble. (c) What word means the sugar mixes with the water.

ANSWERS

1. It dissolves in water.
2. Chalk or sand.
3. Sugar, salt or soda.
4. No.
5. (a) The salt. (b) The sand. (c) The sand.
6. (a) Sugar and salt. (b) Chalk and sand. (c) Dissolves.

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.