25SCHOOLS

FREE LEARNING NOTES FOR ZAMBIA

GRADE 1 · TERM 3

Science

Exploring Mixtures

Lesson notes for learners · Competence-Based Curriculum

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Things around us are often put together. Juice is mixed with water. Sand is mixed with cement to build a house. In this note you will make mixtures, add and take away numbers up to 100, and learn how to deal safely with waste from home.

AFTER THESE NOTES YOU SHOULD BE ABLE TO

- Make a mixture and say what it is made of
- Sort mixtures by colour, size or kind
- Add two numbers up to 100 without carrying
- Take away tens and take away two-digit numbers
- Sort waste from home and keep away from dangerous waste

KEY WORDS

Mixture	Two or more things put together, such as salt and water.
Domestic waste	Things we throw away at home, such as bottles and empty containers.
Add	To put numbers together to find how many there are altogether.
Take away	To remove some from a number to find how many are left.

1 Mixtures

A mixture is made when we put two or more things together. Soil, a salad and salt water are mixtures. A bowl of beans and maize is a mixture too.

Pick two things, such as sand and rice, or salt and water. Put them together. What mixture did you make. Tell your friends why you chose these two things.

You can sort a mixture. Put beans of different colours into groups by colour. Put maize grains into groups by size. Say how you sorted them.

2 Adding and taking away

Sililo has 26 guavas. Mutinta gives her 13 more. How many guavas does Sililo have now. Write 26 + 13. Show it with bundles and sticks. 26 is 2 bundles and 6 sticks. 13 is 1 bundle and 3 sticks.

Add the loose sticks first: 6 and 3 make 9. Then add the bundles: 2 and 1 make 3. So 26 + 13 = 39. Sililo has 39 guavas.

Now take away. A farmer has 30 chickens. 10 are sold. Write 30 - 10. Take one bundle of ten away from 3 bundles. 2 bundles are left. So 30 - 10 = 20. On a number line, start at 30 and jump back 10 to land on 20.

Take away tens in the same way: 50 - 20 = 30, 80 - 30 = 50 and 90 - 40 = 50. Think of 9 - 4 = 5, then say tens. You can also take away two-digit numbers. A farmer has 64 cows. 22 are sold. Take away the ones first: 4 - 2 = 2. Then take away the tens: 6 - 2 = 4. So 64 - 22 = 42 cows.

Problem	Tens	Ones	Answer
26 + 13	2 + 1 = 3	6 + 3 = 9	39
30 - 10	3 - 1 = 2	0	20
64 - 22	6 - 2 = 4	4 - 2 = 2	42

Figure 1. Adding and taking away

3 Waste from home

Domestic waste is what we throw away at home. Plastic bottles, paper, empty detergent containers, peels and empty bottles of insecticide are domestic waste. Look for waste around school and home. Say whether it was thrown in the right place.

We put waste in different bins, such as plastic, paper and general waste. We can sort waste into four groups: poisonous, non-poisonous, useful and not useful. Use gloves, a broom and a dust pan to pick it up. Never pick it up with bare hands.

Some waste can harm people. Glass and chemicals are dangerous. Empty bottles of pesticide or insecticide must never be touched without a grown-up. Look at the warning signs on the labels. Keep chemical containers away from children. Never play with them.

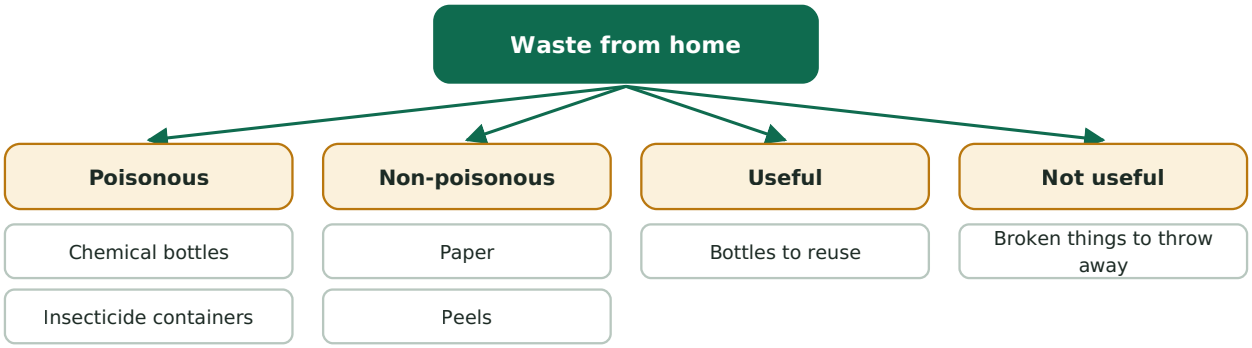

Figure 2. Sorting waste from home

TRY THIS

At home, put two things together to make a mixture, such as salt and water. Say what you made. Count the things in two piles and add them to find the total. Look for waste at home and tell a grown-up which waste is dangerous.

REMEMBER

- A mixture is two or more things put together
- We can sort mixtures by colour, size or kind
- Add the ones first, then the tens: 26 + 13 = 39
- Take away tens or ones: 30 - 10 = 20 and 64 - 22 = 42
- Sort waste into groups and never touch chemical waste without a grown-up

? Check yourself

1. Name two mixtures you can find around you.
2. What is 30 - 10.
3. Why must children not touch an empty insecticide bottle.
4. Write one way to sort a mixture of beans.

5. Chanda has 24 mangoes. Her aunt gives her 15 more. (a) Write the addition sentence. (b) Add the ones first. What do you get. (c) How many mangoes does Chanda have now.
6. A shop keeper has 64 bottles of cooking oil. He sells 22 of them. (a) Write the take away sentence. (b) Take away the ones. What do you get. (c) How many bottles are left.

ANSWERS

1. Any two of: soil, salad, salt water, beans and maize.
2. 20.
3. It can harm them. Only a grown-up should handle it.
4. By colour or by size.
5. (a) 24 + 15. (b) 4 + 5 = 9. (c) 39 mangoes, because 2 tens + 1 ten = 3 tens, and 3 tens and 9 ones is 39.
6. (a) 64 - 22. (b) 4 - 2 = 2. (c) 42 bottles, because 6 tens - 2 tens = 4 tens, and 4 tens and 2 ones is 42.

Written by 25Schools to follow the Grade 1 Science syllabus of the Zambian competence-based curriculum. Free for learners to read, download and share. More notes and quizzes at 25schools.com.