

## Semester Test - Revision

### Unit 2

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

#### Unit 2 Mixing materials

#### Unit 2.1 Solid, liquid and gas

A. Match the correct pair. Use a line to connect them.

solid

liquid

gas



juice



rock



oxygen

C. True or false. Write TRUE if the statement is correct and FALSE if the statement is wrong.

- \_\_\_\_\_ 1. **Solids** follow the shape of their container.
- \_\_\_\_\_ 2. **Liquids** do not change shape.
- \_\_\_\_\_ 3. Some **gases** have color and smell.
- \_\_\_\_\_ 4. **Mixtures** are made up of two or more materials mixed together.
- \_\_\_\_\_ 5. **Mixtures** could be made up of solids, liquids or gases or a combination of these.

## Unit 2.2 Separating mixtures

A. A mixture or Not a Mixture. Look at these materials and identify whether they are a mixture or not.



nitrogen



milk



air

B. Mixtures can be separated in different ways. Choose how to separate the following mixtures and complete the sentence of the reason.

1.

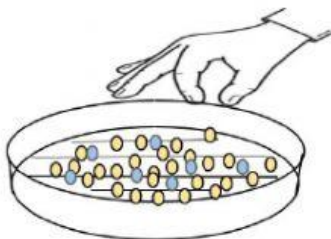


Iron filings can be separated from sand by a

\_\_\_\_\_. Iron filings are

\_\_\_\_\_ but sands are not.

2.

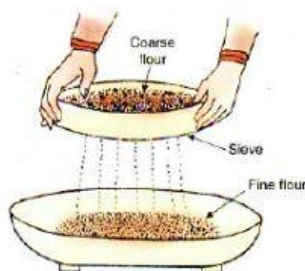


We can separate blue from yellow beads by

\_\_\_\_\_. We can separate them into

two distinct groups of \_\_\_\_\_.

3.



To separate coarse flour from fine flour, we need a

\_\_\_\_\_. Finer materials can

\_\_\_\_\_ through the sieve but not the  
coarser materials.

4.



Muddy water can be separated by

\_\_\_\_\_. Liquid can pass

through the tiny holes of the \_\_\_\_\_

but not the soil (mud).

## Unit 2.3 Dissolving

- A. Soluble or Insoluble. Identify the following materials whether they can be dissolved in water or not.



Vitamin C tablet



pebbles



juice powder

- B. Khanh plans for an experiment to dissolve salt and sugar in hot and cold water. She prepared 20ml of hot and cold water, a measuring cylinder, 2 teaspoons of sugar and 2 teaspoons of salt and a timer.

She labeled the setups and recorded the results below as shown below.

	salt		sugar	
	hot	cold	hot	cold
Time taken to dissolve the solid (minutes)	2min	7min	2½ min	8min

1. What is she trying to test?
2. What TWO things does she need to keep the same?
3. What ONE thing does she need to change in the test?
4. Why is it needed to wear goggles?



After the test, Jeremy thought of an idea. Do you think Jeremy's idea is correct? Why?

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## Unit 2.4 Filtering

### A. Parts of a filter.

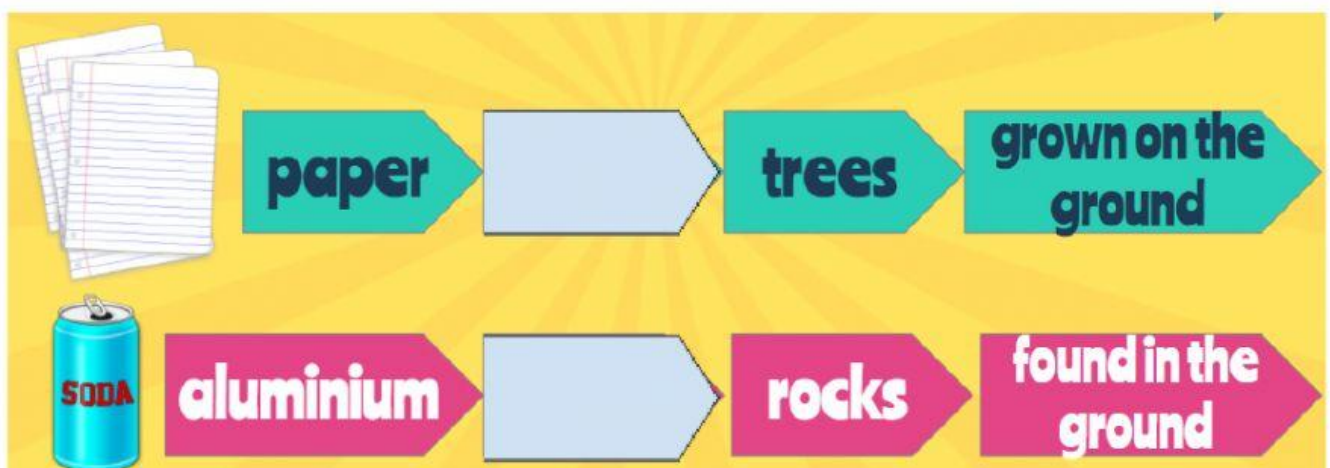


This is a layered filter. There are layers of different materials in the bottle. Each layer covers the material below.

1. Describe the colour difference in the dirty water before and after filtering.
2. If the dirty water has some pieces of leaves, on which layer would you find them?
3. Is it safe to drink the liquid mixture that passed through the filter? Why?

## Unit 2.5 Separating materials from rocks

### A. Follow the flowchart below. Find the missing material.





B. Which of the following are fuels? Put a check mark below it.



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C. Fill out the missing words in the paragraphs below. Use the beginning letters as clues.

**N**\_\_\_\_\_ **g**\_\_\_\_\_ is a gas found underground. We burn it to cook, heat our homes and to make electricity. Oil is a liquid found underground. The oil is heated to make useful liquids and gases. The petrol and **d**\_\_\_\_\_ we burn in cars and lorries come from this oil.

Materials that we burn are called **f**\_\_\_\_\_. These fuels contain carbon. When we burn these materials the **c**\_\_\_\_\_ **d**\_\_\_\_\_ gas is made. Too much carbon dioxide in the air is making the Earth get warmer. This is called **g**\_\_\_\_\_ **w**\_\_\_\_\_.

D. Which of the following actions help reduce the effects of global warming?  
Put a tick under the correct action.



sorting trash properly



recycle reusable materials



littering