

**Autumn 2**

**C14 The Earth's resources**

**Aiming for Grade 4**

**Extended Homework Assignment**

**Name:** \_\_\_\_\_

**Set:** \_\_\_\_\_

**Instructions**

A printed copy should be handed into your teacher.

The knowledge required to complete this assignment will be supported in class in lessons of the half term.



**OLD BUCKENHAM  
HIGH SCHOOL**

*Achieving excellence together*

## C14 The Earth's resources – Aiming for Grade 4

### Aims

In this activity you will produce a script for a short 'mini-programme' for television or an online video channel (and will then perform this) about potable water and how we obtain it.

### Learning outcomes

After completing this activity, you should be able to:

- describe what potable water is
- describe how potable water can be obtained using distillation
- describe how potable water can be obtained by passing fresh water through filter beds and sterilisation.

### Task

You are going to write a script all about potable water. It should explain what it is and how we can obtain it using distillation, or by passing fresh water through filter beds and sterilising it. You will then use your script to perform a 5-minute programme on potable water. Your teacher will tell you which group to work in.

There are some facts and useful information shown below about potable water. You can also refer to the student book. Select facts from these to use in your script. Remember to put them into your own words.

Your teacher will also demonstrate how an impure sample of water is distilled to obtain pure water.

You may like to break up your script into the following sections:

- What is potable water?
- What is in water that would make it not potable?
- How can salt water be distilled using distillation?
- How can fresh water be purified using filter beds and sterilisation?

Discuss in your group the best way to write the script. You can make additional resources if you need to (e.g., cards to hold up with diagrams). When your script is finished, practise performing your mini-programme in your group; every member of your group will need to take part.

(8 marks)

### Useful information

Water can contain many other substances. Water found in the natural environment is unlikely to be pure.

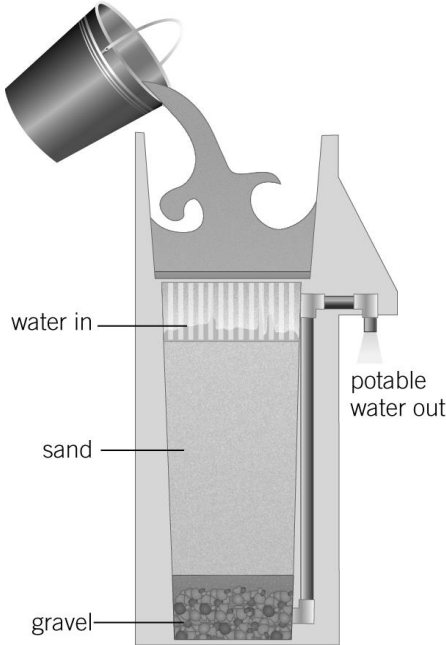
It may have dissolved substances in it, like fertilisers used by farmers or gases from the air. It could contain microorganisms like bacteria, which could make us ill if there are lots present. It may also have some solids in it, for example mud or silt, or pieces of rubbish.

Water that is fit for us to drink is called potable water. Potable water does not have to be pure, but it must have low enough levels of dissolved substances and microorganisms so that it will not make us ill.

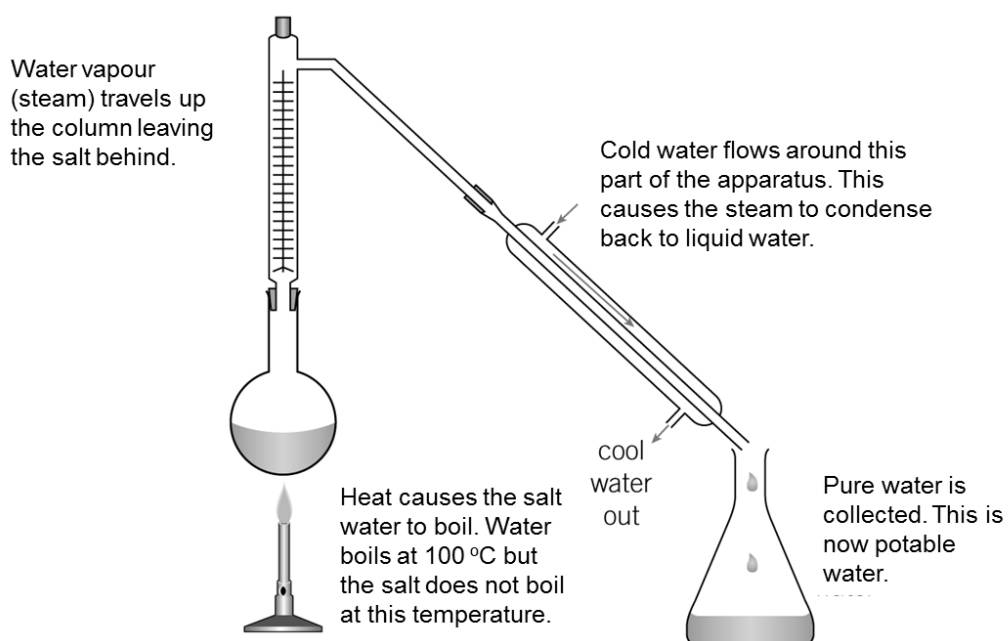
Water that contains impurities can be filtered through beds of sand and gravel. This filters the impurities off.

The water that is obtained this way can also be sterilised with chemicals (e.g., chlorine) or with ultraviolet light to kill microorganisms.

This method is usually used to obtain potable water from freshwater, not from salt water.



### Carrying out a distillation



### How to write a script

Your script should show who is speaking, what they will say, and if they need to do anything. For example, if Person 1 needs to say that water can be impure and to hold up a photo of dirty water, your script would look like this:

**PERSON 1** (*holding up photo of dirty water*): Water can be impure.