

# Box 2    The Environment

## Contents

Teachers Notes

Pan with Lid

Sack

Hay

Cous Cous

5 X Maps of the World

5 X Name Labels

**Please ensure that all contents are returned  
to the box at the end of the visit**

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## Background information

The Environment Agency in The Gambia has been investigating ways of using less solid fuel.

Cooking in The Gambia is traditionally carried out using wood. This is causing problems on two main fronts.

- 1) Carbon dioxide from the burning of wood.
- 2) Deforestation leading to desertification.

The Gambia's population is expanding and its forests cannot cope with the amount of wood that is being used for fuel and building. When the trees are chopped down there is nothing to hold the soil together, nutrients are lost, plant life is lost and heat and wind turn the land to desert.

The solar cooker is one of the ideas being investigated.

## Solar cooker.

The solar cooker works in much the same way as a hay box. When the components are put together and placed in full sun, they will cook the contents over the course of half a day.

### Putting your cooker together

*Put the cous cous in the pan.*

Put the lid on the pan.

Fill the sack with the hay.

Put the pan in to the sack leaving the lid uncovered.

## Activities

### Activity 1

Show children the contents of the box. Put name labels with each component. Allow the children to handle the objects and give ideas on what they could be used for.

#### Key questions?

How could you put these objects together so that you could cook the cous cous?

Allow the children to move the components and to investigate how they could be used.

### Activity 2

Look at the maps.

#### Key question

What is the climate like in the UK?

Ask for suggestions about climate for different times of the year.

Look at Europe, Africa and The Gambia and repeat the question.

Record children's ideas.

### Activity 3

Give the collection of objects a name. These objects can be put together to make a solar cooker. Now that children know what the components make, ask them how they should be put together.

#### Key question

What does solar mean?

How do you think the components should be put together?

How would it work?

### Activity 4

Put the solar cooker together. (minus the water!)

#### Information

The Gambia has very few places that are connected to mains electricity or any reliable source of power. The most popular method of cooking throughout the county is on wood burning stoves and open fires

#### Key question

Why would the solar cooker be an environmentally friendly alternative to solid fuel cooking methods?

## Follow up activities.

1. Make your own solar cooker.

Could you make a more efficient solar cooker?

Would the materials used affect it?

The colour of the materials?

Could you find other uses for the technology you are using?

2. Research the uses of solar cookers and their technology.

Where would you look?

Are there any companies/charities manufacturing solar cookers?

## National Curriculum and Primary Strategy

### Science

#### Key Stage one

##### **SC1**

- a. ask questions and decide how they might find answers to them
- c. think about what might happen before deciding what to do

##### **SC3**

- a. use their senses to explore and recognise the similarities and differences between materials

#### **Key Stage two**

##### **SC1**

2a. ask questions that can be investigated scientifically and decide how to find the answers

##### **SC3**

1a. to compare everyday materials and objects on the basis of their material properties, including hardness, strength, flexibility and magnetic behaviour, and relate these properties to everyday uses of the materials

### Geography

#### Key Stage one

1a. ask geographical questions

- b. express their own ideas about people, places and environments

3a. identify and describe what places are like

5a. recognise changes in the environment

## Key Stage two

3a. to identify and describe what places are like

4b. recognise some physical and human processes and explain how these can cause changes in places and environments

5a. recognise how people can improve the environment or damage it

c. recognise how and why people may seek to manage their environments sustainability, and to identify opportunities for their involvement

7b. study a range of places and environments in different parts of the world