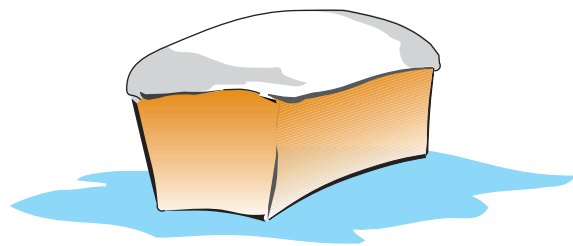


BAKING BREAD

*Extracts from the photopack,
Photo Opportunities in Science,
published 2002 by Oxfam GB
and the Association for Science Education,
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About the series

Photographs are hugely influential in all our lives. Every day we are exposed to hundreds of images, from the cereal packet we see at breakfast, to advertisements, newspaper photographs and shop window displays. Images like these play an important role in shaping our ideas about ourselves and other people.

Choosing and using photographs

Photos can be a good way of introducing a new topic, such as families or homes. They are useful in establishing a baseline of knowledge and understanding that children might already have about another place, or other people's lives. They can provide a neutral starting point, a forum in which children can begin to share, discuss and question their ideas with confidence. Pupils should be given the opportunity to discuss photos without feeling that they might be giving the 'wrong' answer or opinion. Remember that different children will interact with, and interpret, each photo very differently – in just the same way as they would react when meeting someone for the first time. A child's expectations, experiences, and preconceptions will inform his/her understanding.

Why use photographs to teach science?

Science is all around us in our everyday lives, but we don't always know it. One advantage of using photographs is that children can connect science to everyday activities, such as cooking or looking after plants and animals. They will learn that science is universal. Children will be able to see that although life in other countries may differ in terms of facilities, climate and customs, there are also many similarities with their own lives. Although the photographs in the pack have been selected with science in mind, they will also provide links from science to other curriculum areas, such as geography, design and technology and citizenship.

Baking bread (Unit 11) are pages from *Photo Opportunities in Science*. Two pages of teacher notes [**TN/sheets.pdf**], and two pupil worksheets [**w/sheets.pdf**], print in black. To get the most out of the unit teachers will need to print the photograph [**Peru.pdf**] in colour at a setting of 95% A4 size.

Photocard information for teachers

The **Baking bread** picture was taken in San Juan de Lurigancho, not far from Lima, Peru, in a bakery set up by local women to make bread initially intended for their own consumption. They now sell the bread. They produce ten types of bread and about eight types of cake. Although they started off with a charcoal-burning oven, they now have a gas oven and other modern equipment, such as a dough kneader and a dough cutter. The bakery and some other products provide local people with good livelihoods. They used to depend on subsistence agriculture, but were badly affected by El Nino.

Unit 11

Baking bread

LEARNING OUTCOMES

- ▶ Discover that once bread is baked, we cannot change it back into dough (irreversible change)
- ▶ Describe the way some materials change when they are heated
- ▶ Learn that dough needs to be baked to turn it into bread
- ▶ See that there are many different types of bread
- ▶ Explore bread as an important part of many people's diet
- ▶ Find out about some of the different types of bread, their names and origins

Activity 11.1

Time needed: 1 hour (for chapattis) or 45 minutes (for toast)

YOU WILL NEED

- ✓ Photograph 10: baking bread
- ✓ Ingredients and utensils for chapattis (see recipe, page 35) or bread for toasting
- ✓ A cooker or toaster
- ✓ Worksheet 9

Introducing the activity

Make sure that all the children can see the photograph and ask them what is happening. Do they think that this person is baking for a family? Ask the children about where they get their bread. Have they ever seen bread being baked?

Ask the children if they have ever seen or touched dough. What is it like? Ask them what they think happens to the dough when it is in the oven. What changes happen in the way it looks, smells and feels? Which types of bread do they like best, and why?

What the children do

If possible, let groups of children bake some bread, following a simple recipe. Chapattis are relatively simple to cook, especially if you can draw on a parent or helper to demonstrate, and to work with groups. A recipe for chapattis is given on page 35.

If it is not possible to bake bread, the children could make toast so they can see that this change is also irreversible.

Plenary

Talk to the children about how the dough changed into bread, or how the bread changed into toast. Summarise ideas about what happened (bread rose, chapattis became less sticky, toasted bread became crisper).

Ask the children whether you can get the chapattis to change back into dough or the toast to change back into bread. Ask them if they can think of something which they could change back after they had heated or cooked it. (Water would be one example.)

The children can record the activities they tried using a storyboard (worksheet 9). This helps them to report the activity in a chronological sequence.

Activity 11.2

Time needed: 45 minutes

YOU WILL NEED

- ✓ Selection of breads such as ciabatta, chapatti, pitta, sliced loaf, cholla, French stick
- ✓ Margarine or butter
- ✓ Blunt knives

Introducing the activity

Show the children the photograph. Ask them whether they think bread is popular in the place where this woman lives. Ask them how much bread they eat and how often they eat it. Ask them what type of food they eat most of. Make a list on the board. Explain to them that people in many other countries eat very different food, and that, when we would eat bread at a meal, they might eat rice, noodles, porridge or something else filling.

Tell them that bread is eaten in many different countries around the world, and that it comes in all sorts of shapes and sizes. Ask the children what types of bread they have eaten and whether they know the names of the types of bread. Show them the breads you have brought in, and tell them the names and the countries of origin.

What the children do

Divide the children into groups of about four. Give each group part of a loaf of bread. Get the children to compare breads – they could sort them into two groups, or devise their own groupings such as ones they have eaten, ones they haven't, good for making sandwiches, good for dipping into things etc. Cut small pieces of the bread for the children to try, perhaps with some margarine or butter (be aware of hygiene and dietary requirements).

Plenary

Ask the children to share their ideas about how they grouped their bread samples. Which new breads have they tried, which of these did they like best and why?

Further work

Make a display showing different types of bread. Label the breads and say which countries they originally came from. You could use a map to show this, perhaps linking the bread with string or wool to its country or origin. Encourage the children to bring in other types of bread and to write the name of the bread in their home language (where applicable). Most supermarkets now stock a very wide variety of breads of different origins.

Some children may be able to explain how they eat special breads for festivals or religious occasions.

More work could be done on food from around the world. Food in general is often the subject of special festivals, e.g. the Yam Festival in Nigeria.

Wordbank

names of breads

oven

heat

bake

dough

rises

changes

yeast