

## Knowledge box 6

### Geography Plus: Food for Thought

These knowledge boxes provide background information for teachers to help develop knowledge for teaching **Food for Thought**.



Photo: © cc John Loo.

#### How is our food made?

Chocolate is a good choice of food to investigate, as nearly all pupils will know of it and probably enjoy it as well! However, they probably have little idea of the actual processes that chocolate has to go through before arriving at the finished product.

The production of chocolate is very labour intensive in the early stages and provides many jobs for local people in the cocoa producing areas of the world which lie in the tropical climate zones. Côte d'Ivoire is the world's largest producer of cocoa and accounts for around 80% of the total cocoa produced in Africa. Ghana, Indonesia, Brazil, Nigeria, Cameroon and Malaysia are the other main producers. All these countries lie in the tropical equatorial climatic zones of the world and can produce up to two crops of cocoa beans per year.

#### Cocoa growing and production

Cocoa beans grow in pods that sprout from the trunk and branches of cacao trees. These are about the size and shape of a rugby ball and are initially green then yellow when ripe. Using machines could damage the pods or trees so local people hack them carefully off the trees

with a machete. The pods are then split open and the seeds removed. Each pod can contain up to 50 beans but at this stage they do look somewhat unappetising and don't taste like chocolate at all!

The next process is fermentation. The beans are placed in shallow trays, covered with banana leaves and left in the warmth for up to a week, during which time the beans turn brown. The beans are then dried in the open sun to ensure they won't go mouldy and placed in sacks ready for exporting to countries where chocolate is made.

On arrival at these factories the beans are roasted and the shells removed to leave the cocoa nibs. The nib is then ground and becomes a liquid known as cocoa mass, which contains over 50% cocoa butter. This is then blended with other ingredients in a process called conching. For dark chocolate, cocoa mass is blended with sugar; for milk chocolate cocoa mass is blended with sugar and milk powder; for white chocolate cocoa butter is blended with sugar and milk powder. It is then sent to the moulding area in tanks ready to be poured into moulds which give the traditional shape to the chocolate we recognise. This is then packaged and transported to retail outlets.

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### Fair trade considerations

The production of chocolate is very labour intensive in the early stages where it is grown and harvested. However, the main wealth earned from chocolate is not in these countries but in those where the process of creating chocolate is part of a heavily mechanised industry. The marketing of chocolate is also worth considering as this is a very competitive area and pupils can be introduced to the significance, importance and impact of advertising such a product. How is it advertised? What sort of language is used to market it? How much are people influenced by this advertising? This then provides an opportunity to discuss the implications of fair trade.

Fair trade means that the company which buys the foodstuff either attempts to give a fair price for that product so that the workers make a decent living or puts money into a project for the workers to improve their lives. As a homework activity, have pupils look for any food products at home which claim to be involved in a fair trade project. Bananas are a particularly good example to find. Look out for the annual 'Fair Trade Week' in the UK. Shops sometimes highlight particular products during this week. Ask the pupils if they can find examples of such projects and decide whether they seem to be beneficial and sustainable for the workers.

### The story of chocolate

The story of Cadbury (see [www.cadbury.co.uk/the-story](http://www.cadbury.co.uk/the-story)) and the development of the chocolate-making industry over the last 200 years is a good resource to explore. Today's cocoa farmers face big problems: average production has dropped and it can be hard to make a living. The Cadbury Cocoa Partnership has been set up to help them. It is a groundbreaking initiative, now funded by Mondelez International, which is carried out in partnership with the United Nations Development Programme and others, and marks 100 years since the Cadbury brothers first began trading in Ghana. Seventy percent of the Partnership funds will be invested into small farms and farming villages in Ghana, which provide the cocoa beans for Cadbury's.

The story of Bournville is shown through a slide show ([http://news.bbc.co.uk/local/birmingham/hi/people\\_and\\_places/newsid\\_8483000/8483253.stm](http://news.bbc.co.uk/local/birmingham/hi/people_and_places/newsid_8483000/8483253.stm)), which describes how brothers George and Richard Cadbury opened the Bournville Cadbury factory in 1879. George had a vision of creating a village where community and family life would thrive. He bought land and set about building Bournville, ensuring the community had all the facilities needed. However, due to George's Quaker beliefs there is no village pub even to this day.