

The History of Packaging



PUPIL'S CARD 1

Forms of Packaging

Millions of years ago people hunted for food and ate it at once. Soon they realised they could keep their food longer if they protected it, so they made packets from animal skins and large leaves, and kept water in containers made from coconut shells and dried vegetable skins.

Today, we use lots of different packaging and containers to keep food and drink clean and fresh, so we don't waste it. Think about the many examples in your home.

Why was the can invented?

The first can was invented by a French chef called Nicholas Appert. The Emperor Napoleon offered a prize to anyone who could find a way of keeping food safe for soldiers in battle, and Monsieur Appert won the award.

Today, we use cans made from steel - a strong metal containing iron and carbon. They also have a thin layer of tin on them, which is why many people call them 'tins'.



Things to do

1. Why do people need to protect and store food? Imagine you are a Roman, Elizabethan or a Victorian citizen. Write a story about what food you buy or gather and how you store it over the winter.
2. Design a label to go around the outside of the can with your favourite food or drink in it. Don't forget to put the recyclable steel symbol on the label. What ingredients will you include on the label?

IT'S AMAZING



Over 18 billion cans are produced each year in the UK. Most of these (13 billion) are made with recycled steel. If you put all the steel cans together end to end, you could make a trail to the moon three times.



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TEACHER'S CARD

1

Forms of Packaging

The earliest forms of packaging were made from animal skins, large leaves and vegetables. Water was kept in containers made from coconut shells, animal skins or gourds - the hollowed-out dried skins of fruit and vegetables.

By Egyptian and Roman times, containers were being made of clay and other materials. Later, glass, metal and paper were introduced.

In Victorian times, butter and cheese were kept in baskets, vinegar in barrels, tea in chests and grain in sacks.

Nowadays, packaging may be very different, but its main functions are still to make food and other products easy to transport, and to protect it until we are ready to eat it, which reduces the amount we waste. For every £1 spent on packaging, £3 worth of food is saved. Modern packaging has also made it possible to eat food that is out of season and to display nutritional information about the contents.

Why was the can invented?

The can was developed to solve the problem of keeping food fresh for the troops during the Napoleonic Wars.

In 1795, Napoleon offered a prize to anyone in France who could come up with an idea which would keep food safe for his soldiers. Nicholas Appert, a chef from Paris, took up the challenge and invented a method of preserving food by heating it in a sealed container. Meanwhile, scientists in England discovered that steel covered with a very fine layer of tin, made an ideal packaging material and kept food fresh.

By the Second World War, the steel can looked like cans we have today. It was lighter than the original version, opened at the end of a can opener, and contained a wide variety of foods – from spaghetti, mushy peas and pilchards, to sardines, evaporated milk and soft drinks.

The space age brought new challenges. Food for astronauts not only needs to be tasty and crumb-free, but also light - which led to the discovery that freeze-drying foods such as meat and vegetables reduces their weight. A special non-spill drinks can made from steel was also developed for space, fitted with a special mouthpiece which closed once the astronaut had drunk enough.

Activities

1. Pupils might like to make a large frieze for the classroom showing all the different types of packaging we use. Packets should be labelled to show what they are made of and marked with a green ink tick if they are recyclable.
2. Pupils could produce a booklet on the different types of containers used to preserve food over the centuries.
3. Explore the idea of packaging for space. Why does it have to be light? Why does it have to be sealed? Why don't astronauts just eat pills?
4. Bring in a selection of unopened cans of different shapes and sizes and display them in the class. Pupils could devise a quiz/questionnaire about the collection asking which ones are made of steel, which ones can be recycled and which products are pupils' favourites, etc. Using IT, pupils could record the results on a spreadsheet.

Project

Using a variety of materials, pupils should design and make a container from a recyclable material, suitable for holding either liquid or a solid item. For example, they could make a container for water from polythene sheeting and card. They should keep a record of everything they do and then devise a test to see if their design works. What other materials have used? How could their design be improved?

Useful addresses:

Steel Can Recycling Information Bureau (SCRIB)

Trostre works, Llanelli, Carmarthenshire, SA14 9SD

Telephone: 01554 712632

Email: info@scrib.org, Web: www.scrib.org

Canned Food UK

Le Chateau, Glangrwny, Crickhowell, Powys, NP8 1EE.

Telephone: 01873 811244

The Industry Council for Packaging and the Environment (INCPEN) SoanePoint, 6-8 Market Place, Reading, RG1 2EG

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