Reading

Unit 4 – Friday

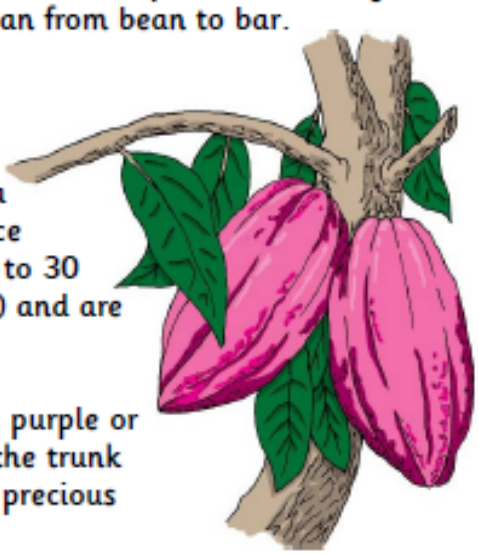
All use the same text.

Choose some words and find their meaning.
use the answers later to help you understand the words in the text.

Chocolate – From Bean to Bar

Have you ever wondered where your favourite chocolate bar comes from? Well, it all begins with the humble cocoa bean. It must travel many miles and go through lots of complex processes before it starts to resemble the delicious chocolate bar you can buy from your local shop. Follow the eight different stages of production and track the journey of the cocoa bean from bean to bar.

Stage 1 – The Trees:



The journey begins with the cacao tree or *Theobroma Cacao,* which is unsurprisingly translated as 'the food of the gods'. The trees grow in Countries with hot, damp climates, such as Ghana in Africa and Brazil in South America – in fact they can be grown in any place within 20 degrees latitude of the equator. Cocoa trees can grow up to 30 feet (this is actually quite short for trees which grow in this climate) and are usually about five years old before it begins to flower.

Cocoa pods can be a wide variety of colours, such as green, yellow, purple or orange. As well as growing on branches, the pods can sprout from the trunk of the tree itself, which looks quite bizarre! Inside each pod are the precious cocoa seeds – the source of that special chocolate taste.

With a great effort, cocoa farmers use hand tools to harvest ripened cocoa pods. They use a machete to slice ripe pods from the trees and tirelessly gather them into baskets. This type of work is time-consuming and physically taxing. As well as this, the trees are at risk from damage and disease. Life can be pretty tough for a cocoa farmer of which there are over 2 million in the world. Because of this, special Fairtrade Co-operatives have been set up to support cocoa farmers and their families. This ensures they get a better deal and a fair price for all of their hard work.

Stage 2 – The Beans:

After the pods have grown to the appropriate size, the farmers begin the dangerous task of splitting open the pods with their machetes and scooping out the pulp-covered cocoa seeds manually. Cocoa pods have tough skins and it can take two or three blows with a machete to open one up. Each pod can contain between 30 and 40 cocoa beans. A skilled worker can hack up to 500 pods in one hour – now that sounds like hard work! Once collected, the farmers pile these seeds under banana leaves to ferment in the hot sun. This causes the seeds to heat up naturally, triggering chemical changes that alter the look and flavour of the seeds. Eventually, they turn a rich dark brown and begin to taste like bitter chocolate.

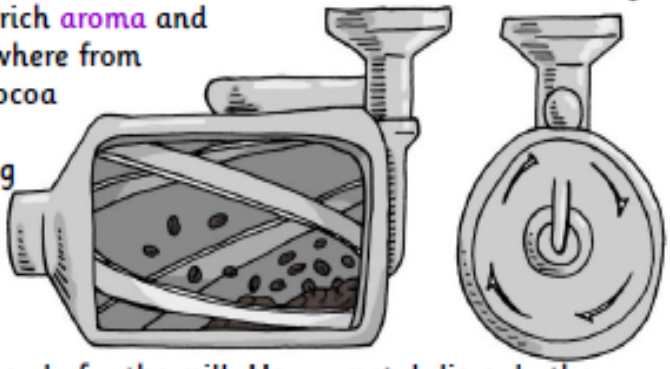
Farmers then need to dry the fermented cocoa seeds in the sun and do so on rooftops, tables or large mats. Drying cocoa seeds prevents them from becoming compromised during shipping. As the weather is so warm in equatorial countries, the seeds will be thoroughly dry in about ten days. To ensure they dry evenly, farmers spend time turning the seeds during the drying process.

Stage 3 – The Trade:

Once the seeds have dried, farmers transfer the seeds into sacks and then take them to be weighed and scrutinised by the buyers. When the purchase of their goods is complete, the beans are eventually loaded onto container ships. At this stage, farmers who belong to a Fairtrade Co-operative are guaranteed a fair price for their product. This means that these farming communities can cover their costs and plan for the future. Members of a Fairtrade Co-operative also have a say in how their product is produced and sold.

Stage 4 – The Factory:

After they have been packed on to the ships, the beans are sent all over the world to places including the USA and UK. On arrival, the beans are then sorted and cleaned and eventually pasteurised to ensure that all of the impurities are removed. The beans are then roasted in revolving gas-fired ovens which is when the seeds release their rich aroma and wonderful flavour! The roasting process can last anywhere from thirty minutes up to two hours. When finished, the cocoa shells are rather brittle and then need to be removed. The beans are passed over vibrating trays whilst being hit with a breaker arm in a machine called a kibbler.



Next, they are put through the winnower where the giant fans blow them away. What remains are the cocoa nibs: these are the tasty centres of cocoa seeds that eventually become chocolate. Now the nibs are ready for the mill. Heavy metal discs do the work, grinding the nibs into a thick paste that will eventually become chocolate. The grinder needs to generate enough friction and heat to liquefy the nibs into the thick paste called chocolate liquor (non-alcoholic of course). Some chocolate liquor is then pressed to remove the cocoa butter and further processing turns it into cocoa powder.

Stage 5 – The Mixer:

To make chocolate, manufacturers then blend the unpressed chocolate liquor with condensed milk, sugar, and extra cocoa butter. Special mixers churn the liquor and mix the ingredients together after they have been combined. These are all mixed for a few hours until it becomes a coarse brown dough called chocolate crumb. When this crumb has been created, it then needs to be refined. Giant steel rollers do the job of smoothing out the gritty mixture. The rollers break down the tiny particles of milk, cocoa and sugar so it has a smooth and creamy texture.

Stage 6 – The Shape:

Once the chocolate has been made, what happens next depends on the type of chocolate that is being created. The creamy chocolate can be poured into moulds of various shapes and sizes, from bars to buttons or even covering a delicious centre. Quality checks are then completed before packaging: ingenious pieces of machinery can check each chocolate for its appearance, shape and weight. Any products which do not meet the standards are discarded.

Stage 7 – The Packaging:

Each chocolate is then wrapped, packed and sent to shops all around the world. The packaging of a particular product is of vital importance: some brands can be instantly recognised by their packaging. Can you think of any examples? And don't forget that any products made using Fairtrade cocoa beans will be able to display the Fairtrade symbol. Remember to use your power as a consumer when purchasing products in the future: Fairtrade products ensure that the farmers get a fair deal.

Stage 8 – Eat!:

The final stage is you! Happy eating!

So next time you tuck in to your favourite chocolate bar, just think about the many process it has gone through to turn it from bean to bar.

By Alex Edwards-Brown

Bronze

Chocolate – From Bean and Bar – Follow-Up Work

Where in the world do cocoa trees grow?

In 'Stage 4 – The Factory', the cocoa beans are put through a machine with giant fans which blow the brittle shells away. What is this machine called?

There are not many cocoa farmers around the world. True or false? Justify your answer with evidence from the text.

After they have been given time to ferment and dry, what happens to the cocoa beans?

In 'Stage 3 – The Trade', what does the word 'scrutinised' suggest about the way the buyers inspect the cocoa beans?

Silver

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In 'Stage 1 – The Trees', the writer says that 'food of the gods' is an unsurprising translation of the name *Theobroma Cacao*. Why do you think the writer says it is 'unsurprising'?

In 'Stage 4 – The Factory', when referring to 'chocolate liquor' in brackets it states 'non-alcoholic of course'. Why has the writer chosen to include this phrase?

Gold

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The text mentions how Fairtrade farmers get a better deal, what does this suggest about farmers who are not part of a Fairtrade Co-operative?

Why do you think the first sentence is a question?

Why has the writer used sub-headings in this text?

Think of a suitable caption for each of the pictures shown in the text.

Think of an alternative title for this explanation text. Explain why you have made this choice.

Identify any words and phrases which show that the writer thinks cocoa farming is a difficult job.

Do you think the writer enjoys eating chocolate? Explain your reasons using evidence from the text.

In what ways do you think this explanation text is similar to a set of instructions?

Answers

Bronze

Chocolate – From Bean to Bar – Oral Teacher Questions

Where in the world do cocoa trees grow? Cocoa trees grow in hot, damp climates, such as Ghana and Brazil. They can grow anywhere within 20 degrees latitude of the equator (equatorial countries).

In 'Stage 4 – The Factory', the cocoa beans are put through a machine with giant fans which blow the brittle shells away. What is this machine called? A winnower

There are not many cocoa farmers around the world. True or false? Justify your answer with evidence from the text. False. The text states that there are over 2 million cocoa farmers in the world.

After they have been given time to ferment and dry, what happens to the cocoa beans? The dried cocoa beans are first transferred into sacks, weighed and then scrutinised by buyers, then they are sent around the world on container ships to be made into chocolate bars or used for other purposes.

In 'Stage 3 – The Trade', what does the word 'scrutinised' suggest about the way the buyers inspect the cocoa beans? The word suggests that the buyers are looking extremely closely at the product to ensure it is perfect.

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In 'Stage 1 – The Trees', the writer says that 'food of the gods' is an unsurprising translation of the name *Theobroma Cacao*. Why do you think the writer says it is 'unsurprising'? The phrase 'food of the gods' suggests a food which is delicious to taste. Many people believe that chocolate tastes delicious, and food that is fit for a deity must be as delicious as chocolate.

In 'Stage 4 – The Factory', when referring to 'chocolate liquor' in brackets it states 'non-alcoholic of course'. Why has the writer chosen to include this phrase? They have chosen to include this because the word 'liquor' has another meaning. It can also mean an alcoholic drink and the writer wants to make it clear to the reader that this is not the same thing.

The text mentions how Fairtrade farmers get a better deal, what does this suggest about farmers who are not part of a Fairtrade Co-operative? It suggests that farmers who are not part of the Fairtrade Co-operative do not always get a fair deal for the hard work they put in. They also do not get to decide in what way their product is produced and sold.

Why do you think the first sentence is a question? The question engages the reader straight away and gets them thinking about the subject matter. It begins to suggest to the reader that the process of chocolate making is not as easy as they may have first thought.

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Why has the writer used sub-headings in this text? The sub-headings help to organise the text effectively. The purpose of a sub-heading is to give the reader an idea about the information which the following paragraphs will contain. It also gives the reader a brief overview of the text and helps them to find the information they need more quickly.

Think of a suitable caption for each of the pictures shown in the text. Suggestions could include the following: 1. 'Pods growing from the branches of the cocoa tree.' 2. 'Farmers dry the cocoa beans in the sun.' 3. 'The beans go through several complex processes.' 4. 'The chocolate is poured into moulds to create a distinctive shape.'
5. 'Products with this symbol are made using Fairtrade products.'

Think of an alternative title for this explanation text. Explain why you have made this choice. Suggestions could include titles such as 'Journey of a Coca Bean' or 'How is Chocolate Made?'

Identify any words and phrases which show that the writer thinks cocoa farming is a difficult job. The word 'tirelessly' suggests that the work is hard. Phrases such as 'time-consuming' and 'physically taxing' also show that the work is tough. The following sentences also demonstrate this point: 'Life can be pretty tough for a cocoa farmer' and 'This ensures they get a fair price for all of their hard work'.

Do you think the writer enjoys eating chocolate? Explain your reasons using evidence from the text. The writer does like chocolate because of the language that is used. It is described as 'delicious' with a 'rich aroma' and 'wonderful flavour'. At the end, the writer finishes with 'Happy eating!' which suggests that they enjoy eating chocolate themselves. The writer also describes the cocoa seeds as 'precious'.

In what ways do you think this explanation text is similar to a set of instructions? It is similar because it follows the correct order in which the cocoa bean is processed. It also uses conjunctions of time such as 'next' and 'then' to show the passing of time. The sub-headings are numbered in a similar way to numbered steps in a set of instructions.