# <u>SPAG</u> <u>Unit 4 – Friday</u>

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 Cooperative 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 trave whilst being

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.

# Chocolate - From Bean to Bar - Vocab 2

Choose the correct word from the box below to fit in the following sentences.								
She opened the	e window and sav	of	dust flying around	the room.				
She put togeth	er the pieces of th	ne model						
It was of	was of importance that he get full marks on the test.							
Her ability to remember the script was because she was so tired								
Despite winnin	g the race, he ren	nained						
All drinking water has to cleaned to remove all of the								
Ice will if heated.								
The scientist had an idea.								
He stared at me, then he turned to the others and them closely.								
She could smell the sweet of the flowers in bloom.								
The china vase was very weak and								
He was out of breath because he had found the warm-up game so								
She thought that he looked in his fancy-dress outfit.								
People often say that he and his sister each other.								
A is a person who purchases something for their own use.								
She threw away all of the clothes she had								
	humble	bizarre	resemble	taxing				
	manually	compromised	scrutinised	impurities				
	aroma	brittle	liquefy	particles				
	ingenious	discarded	vital	consumer				

# **Answers**

#### Chocolate - From Bean to Bar - Vocab 2

Choose the correct word from the box below to fit in the following sentences.

She opened the window and saw all the particles of dust flying around the room.

She put together the pieces of the model manually.

It was of vital importance that he get full marks on the test.

Her ability to remember the script was compromised because she was so tired.

Despite winning the race, he remained humble.

All drinking water has to cleaned to remove all of the impurities.

Ice will liquefy if heated.

The scientist had an ingenious idea.

He stared at me, then he turned to the others and scrutinised them closely.

She could smell the sweet aroma of the flowers in bloom.

The china vase was very weak and brittle.

He was out of breath because he had found the warm-up game so taxing.

She thought that he looked bizarre in his fancy-dress outfit.

People often say that he and his sister resemble each other.

A consumer is a person who purchases something for their own use.

She threw away all of the clothes she had discarded.

humble	bizarre	resemble	taxing
manually	compromised	scrutinised	impurities
aroma	brittle	liquefy	particles
ingenious	discarded	vital	consumer

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