Chocolate: Cross-Curricular Topic : Year 3/4

**History**
1. Exploring the origins of the cocoa bean and comparing its uses in the Aztec and Mayan cultures.
2. Finding out how the cocoa bean came to Europe, and looking at different people’s viewpoints of the product.
3. Exploring how the Cadbury company began and developed, and ordering main events on a timeline.
   • KS2 - a study of an aspect or theme in British history that extends pupils’ chronological knowledge beyond 1066

**Computing**
1. Using a computer program to input, present and analyse chocolate-related data.
   • KS2 - select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

**DT**
1. Investigating, comparing and contrasting different types of packaging for chocolate, and their effectiveness on the consumer.
2. Designing packaging for a new chocolate product from a chosen brief.
3. Evaluating their packaging designs with an option to do so through role play.
   • KS2 - use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
   • KS2 - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
   • KS2 - investigate and analyse a range of existing products
   • KS2 - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

**Science**
1. Investigating which materials are the best thermal insulators in order to keep a hot drink warm.
2. Exploring the melting point of different types of chocolate.
   • Year 3 - asking relevant questions and using different types of scientific enquiries to answer them
   • Year 3 - setting up simple practical enquiries, comparative and fair tests
   • Year 3 - making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
   • Year 3 - gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
   • Year 4 - recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
   • Year 4 - asking relevant questions and using different types of scientific enquiries to answer them
   • Year 4 - setting up simple practical enquiries, comparative and fair tests
   • Year 4 - making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
   • Year 4 - gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
   • Year 4 - recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
   • Year 4 - observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)

**Art**
1. Exploring the different representations of the Aztec god of chocolate, and creating their own depiction of him in the form of a mask.
2. Using clay to design and create a piece of Aztec-style pottery to use as a drinking vessel for chocolate.
3. Exploring different styles of graphic writing, and creating their own lettering for a new chocolate bar.
   • KS2 - to improve their mastery of art and design techniques, including drawing with a range of materials
   • KS2 - to improve their mastery of art and design techniques, including painting with a range of materials
   • KS2 - to improve their mastery of art and design techniques, including sculpture with a range of materials

**Geography**
1. Finding out where in the world cocoa trees grow, and why they grow there.
2. Exploring what happens to a cocoa pod once it is harvested, and how it is turned into a chocolate product.
   • KS2 - identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)
   • KS2 - describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle
   • KS2 - describe and understand key aspects of human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water

**PSHE**
1. Finding out about the Fairtrade Foundation and how it helps farmers around the world.
2. Exploring what a balanced diet is, comparing modern day food with Aztec food, and understanding how chocolate can be part of a healthy diet.
3. Considering the impact of philanthropy by looking at the Bournville village, created by Richard and George Cadbury for their workers.

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## Teacher’s notes:

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**Chocolate: Cross-Curricular Topic : Year 3/4**

### HISTORY

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</table>
| **Lesson 1**       | To explore the origins of the cocoa bean | Children will discover that the cocoa bean is the essential ingredient for chocolate. They will find out when and where cocoa beans were first used to create a chocolate drink called xocoatl, and compare and contrast how two different cultures, the Aztecs and the Mayans, used them. | • Do children know where the cocoa bean was first cultivated?  
• Can children explain the importance of the cocoa bean to these early civilisations?  
• Can children compare and contrast the use of cocoa beans in different cultures/time periods? |  
  • Slides  
  • Worksheet 1A/1B/1C  
  • Cocoa Bean Culture Cards  
  • Mayan Information Sheet  
  • Aztec Information Sheet  
  • Quetzalcoatl Legend Sheet (FSD? activity only)  
  • Quetzalcoatl Legend Storyboard A/B (FSD? activity only) |
| **Lesson 2**       | To know how the cocoa bean came to Europe | Children will find out how the cocoa bean arrived in Europe. They will discover how it was initially used to make a luxurious drink for the wealthy, but after a time, the first eating chocolate was produced. Children will explore different characters’ viewpoints of chocolate through this time period. | • Can children explain how the cocoa bean arrived in Europe?  
• Do children understand how the consumption of chocolate was linked to social status and wealth?  
• Do children understand how the industrial revolution changed the production of chocolate? |  
  • Slides  
  • Character Cards  
  • Prompt Questions Cards  
  • Worksheet 2A/2B |
| **Lesson 3**       | To explore the development of the Cadbury company | Children will explore the development of Cadbury, one of the largest chocolate producers in the world. They will order the main events on a timeline, or as an alternate activity, will find out more about the life of John Cadbury, the founder of the company. | • Do children understand how the company developed over time?  
• Can children use a timeline to organise the main events in chronological order?  
• Can children ask and answer questions about the development of the company? |  
  • Slides  
  • Worksheet 3A/3B/3C  
  • The History of Cadbury Sheet  
  • John Cadbury Biography Sheet (FSD? activity only)  
  • Question Sheet (FSD? activity only) |

### COMPUTING

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| **Lesson 1**       | To know how to present data for analysis using a computer | Children will discuss what data is, and what kinds of data we could gather about chocolate. They will compare the different ways in which data can be presented. In their independent activities, children will input data, convert it into graphs, and then analyse it by answering given questions. | • Can children input data into a spreadsheet?  
• Can children convert a spreadsheet into a graph?  
• Can children analyse data and describe what it shows? |  
  • Slides  
  • Worksheet 1A/1B/1C  
  • Chocolate Survey Sheet (FSD? activity only) |
## Chocolate: Cross-Curricular Topic : Year 3/4

### PSHE

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| **Lesson 1**       | To know what a balanced diet consists of | • Do children know what a balanced diet means?  
• Can children name the main food groups?  
• Can children identify a balanced meal? | • Slides  
• Worksheet 1A/1B/1C  
• Food Pyramid Sheet  
• Aztec Food Sheet  
• Advantages and Disadvantages of Chocolate Cards (FSD? activity only) |
| **Lesson 2**       | To know about the Fairtrade Foundation | • Do children understand the problems facing cocoa farmers?  
• Do children understand how and why the Fairtrade Foundation charity was set up?  
• Can children explain how the Fairtrade Foundation is helping farmers and their communities? | • Slides  
• Worksheet 2A/2B/2C  
• Fairtrade Mark Sheet  
• Fairtrade Foundation Information Sheet  
• Fair or Not Fair? Game (FSD? activity only)  
• Fair or Not Fair? Situation Cards (FSD? activity only)  
• Fair or Not Fair? Dice (FSD? activity only)  
• Fair or Not Fair? Instructions Sheet (FSD? activity only)  
• Counters (FSD? activity only) |
| **Lesson 3**       | To find out what philanthropy is | • Do children understand what philanthropy is?  
• Can children explain some of the ways in which the Cadbury family improved the lives of their workers?  
• Can children share their thoughts and opinions about philanthropy? | • Slides  
• Bournville Village Information Sheet  
• Worksheet 3A/3B/3C  
• George's Vision Worksheet (FSD? activity only) |

### SCIENCE

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| **Lesson 1**       | To know which materials are best at keeping liquids warm | • Do children understand that heat travels from warmer to cooler places?  
• Do children understand what a fair test is?  
• Can children plan and carry out a fair test, including predicting and recording results, and drawing conclusions? | • Slides  
• Worksheet 1A/1B/1C  
• Beakers/bottles of warm liquid (e.g. water or hot chocolate)  
• A range of materials to test  
• Thermometers, timers  
• Worksheet 1D (FSD? activity only) |
| **Lesson 2**       | To understand that different substances have different melting points | • Can children explain what is meant by the terms ‘melt’ and ‘melting points’?  
• Can children make predictions and carry out observations?  
• Can children explain their findings? | • Slides  
• Worksheet 2A/2B/2C/2D  
• Observation Sheet A/B  
• Chocolate Sheet  
• Pieces of dark, milk and white chocolate  
• Timer  
• Lamp/s, camera (optional) |
# Chocolate: Cross-Curricular Topic : Year 3/4

### ART

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<td><strong>Lesson 1</strong></td>
<td>To explore and create your own depiction of the god of chocolate</td>
<td>Children will find out about the Aztec god of chocolate, Quetzalcoatl. They will see that he has been depicted in many different ways. Children will create their own depiction of Quetzalcoatl by designing and making a mask. Alternatively, they can create their own god of chocolate.</td>
<td>Do children understand what a depiction is?</td>
</tr>
<tr>
<td><strong>Lesson 2</strong></td>
<td>To use clay to recreate a piece of Aztec pottery</td>
<td>Children will discover how Aztecs made and decorated their pottery. They will then be challenged to design and create a vessel from clay for the Aztec leader, King Montezuma, to drink his xocoatl from! In the alternate activity, children will create a monument from clay which represents the importance of cocoa to the Aztecs.</td>
<td>Do children know how the Aztecs used clay to create their pottery?</td>
</tr>
<tr>
<td><strong>Lesson 3</strong></td>
<td>To know how to create different styles of graphic writing</td>
<td>Children will explore how lettering, or graphic writing, is very important when designing the name and packaging for products. They will practise different graphic writing styles and then use this knowledge to create their own lettering for a new chocolate bar.</td>
<td>Do children understand the importance of lettering on products?</td>
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### DT

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<td><strong>Lesson 1</strong></td>
<td>To investigate and analyse different types of chocolate packaging</td>
<td>Children will discuss what makes a successful chocolate packaging design. They will then analyse existing products by evaluating the effectiveness of the name, colour, font, size, shape and images used.</td>
<td>Do children understand the importance of a product’s packaging in terms of its appeal?</td>
</tr>
<tr>
<td><strong>Lesson 2</strong></td>
<td>To design new packaging for a chocolate product</td>
<td>Children will recap on what aspects are important in the packaging of a chocolate bar. They will then design their own wrapper, based on a chosen brief from a chocolate company.</td>
<td>Can children apply what they have learnt about the different aspects of packaging in their own design?</td>
</tr>
<tr>
<td><strong>Lesson 3</strong></td>
<td>To evaluate packaging designs for a chocolate product</td>
<td>Children will find out what happens to a design once it has been created. In groups, they will pretend to be board members of the different companies that they designed the wrappers for, and evaluate each other’s work according to the set criteria.</td>
<td>Can children discuss each other’s work against specific criteria?</td>
</tr>
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# Chocolate: Cross-Curricular Topic: Year 3/4

## GEOGRAPHY

| Lesson 1 | To know where and how cocoa trees grow | Children will discover where cocoa trees can be found, and what climate they grow best in. They will find out about the four layers of the rainforest, and where the cocoa tree thrives. Children will mark these areas on maps and diagrams, and then describe how a pod grows. Alternatively, they will create an information poster about cocoa trees. | • Can children explain where cocoa trees grow and why?  
• Can children use and label maps to identify areas where cocoa trees grow?  
• Can children explain how cocoa trees grow?  
• Slides  
• Worksheet 1A/1B/1C  
• World Map Sheet  
• Continents of the World Sheet  
• Countries of the World Sheet  
• Challenge Cards (FSD? activity only)  
• Cocoa Trees Poster Sheet (FSD? activity only)  
• Cocoa Trees Information Sheet (FSD? activity only) | Resources |
| --- | --- | --- | --- |
| Lesson 2 | To explore the journey of a cocoa bean from pod to product | Children will find out how cocoa beans are harvested, dried, packed and transported to countries where chocolate is produced. They will discover the different processes that the beans go through in order to turn them into chocolate. In their independent activities, children match up pictures of the various processes with descriptions. | • Do children understand the process of harvesting the cocoa bean?  
• Do children understand the process of manufacturing chocolate from the cocoa bean?  
• Can children explain this process in order?  
• Slides  
• From Pod to Product Picture Cards  
• From Pod to Product Description Cards A/B/C  
• Glossary of Terms Cards  
• The Journey of the Cocoa Bean Information Sheet (FSD? activity) | Resources |
| Lesson 3 | To know about the life of a cocoa farmer | Children will recap on which countries produce cocoa beans. They will find out about the daily life of a Ghanaian cocoa farmer, and discuss their thought and opinions about this. They will then create a diary entry as a Ghanaian farmer, or compare and contrast a cocoa farmer’s day with a British farmer’s day. | • Do children understand what a typical day in the life of a Ghanaian cocoa farmer is like?  
• Do they understand some of the problems that Ghanaian cocoa farmers are facing?  
• Can they share their own views and opinions about cocoa farming?  
• Slides  
• Worksheet 3A/3B/3C  
• A Day in the Life of a Ghanaian Farmer Sheet  
• A Day in the Life of a British Farmer Sheet  
• Kuapa Kokoo Information Sheet (FSD? activity only)  
• Discussion Points Sheet (FSD? activity only) | Resources |