

CHALLENGE OVERVIEW

PRIME LEARNING CHALLENGE: Geography and science		YEAR GROUP: 5	DATE: Autumn 1
<b>How could you become the next Mr Cadbury?</b>	<b>WOW STARTERS / ACTIVITIES</b>	<b>BREAKDOWN OF CHALLENGES</b>	
	Week 1: Back to school Week 2: Chocolate tasting Week 3: Cocoa bean dissection Week 4: Cadbury World Trip Week 5: Outdoor rainforest exploration Week 6: PGL? Week 7: Enterprise Week 8: Parents Afternoon- Children selling their chocolate.	Week 1: Where does chocolate come from? (Geography, location of rainforest, layers of the rainforest) Week 2: <i>How could we protect our rainforests?</i> (History of the cocoa bean, how chocolate came to Britain) Week 3: In addition to cocoa beans, what else would you find in the rainforest? (animals, plants, cotton etc) Week 4: How does the rainforest bring people together? (Endangered, fair trade, economics, Aeroplane/Aero) Week 5: As the new Mr Cadbury, will you use Fair Trade? (Secret Chocolatier) Week 6: As the new Mr Cadbury, will you use Fair Trade? Week 7: How could you organise the Grange Chocolatier Convention 2018. Week 8: How could you organise the Grange Chocolatier Convention 2018.	

COVERAGE

SUBJECT:	NC CONTENT LINKS: (Take from National Curriculum Content Map Document)	SUBJECT SKILLS:		
		Below Expectations	At Expectations	Exceeding Expectations
<b>Geography</b>	<b>Amazon – Rainforest</b> <ul style="list-style-type: none"> <li>To understand trade and growing</li> <li>To locate the world's countries, using maps</li> <li>To focus on South America and concentrate on its environmental regions, key physical and human characteristics, countries, and major cities economy</li> <li>To understand what Fair Trade is</li> <li>To explore the rainforests of the Amazon</li> <li>To gain understanding of deforestation.</li> </ul>	<b>Geographical Knowledge</b> <ul style="list-style-type: none"> <li>Can they locate and name the main countries in South America on a world map and atlas?</li> </ul>	<b>Geographical Enquiry</b> <ul style="list-style-type: none"> <li>Can they collect information about a place and use it in a report?</li> <li>Can they find possible answers to their own geographical questions?</li> </ul> <b>Physical Geography</b> <ul style="list-style-type: none"> <li>Can they explain why many cities of the world are situated by rivers?</li> <li>Can they explain how a location fits into its wider geographical location; with reference to physical features?</li> </ul> <b>Human Geography</b> <ul style="list-style-type: none"> <li>Can they explain how a location fits into its wider geographical location; with reference to human and economical features?</li> </ul>	<b>Physical Geography</b> <ul style="list-style-type: none"> <li>Can they explain what a place (open to environmental and physical change) might be like in the future taking account of physical features?</li> </ul> <b>Human Geography</b> <ul style="list-style-type: none"> <li>Can they report on ways in which humans have both improved and damaged the environment?</li> </ul> <b>Geographical Enquiry</b> <ul style="list-style-type: none"> <li>Can they explain what a place (open to environmental and physical change) might be like in the future taking account of physical features?</li> </ul>
<b>History</b>	<ul style="list-style-type: none"> <li>To understand the history of the cocoa bean</li> </ul>	<b>Chronological Understanding</b> <ul style="list-style-type: none"> <li>Can you place events in order correctly on a timeline?</li> </ul>	<b>Chronological Understanding</b> <ul style="list-style-type: none"> <li>Can they use dates and historical language in their work?</li> </ul> <b>Knowledge and Understanding</b> <ul style="list-style-type: none"> <li>Do they appreciate that significant events in history have helped shape the country we have today? (If chocolate wasn't here today, what would be?)</li> </ul>	<b>Chronological Understanding</b> <ul style="list-style-type: none"> <li>Can they create timelines which outline the development of specific features, such as medicine; weaponry; transport, etc.</li> </ul>
<b>Science</b>	<b>Properties and changes of materials</b> <ul style="list-style-type: none"> <li>To explain that some changes</li> </ul>	<ul style="list-style-type: none"> <li>Can they compare and group together everyday materials on the basis of their properties?</li> <li>Can they describe changes using scientific words?</li> </ul>	<ul style="list-style-type: none"> <li>Can they explain how some materials dissolve in liquid to form a solution?</li> <li>Can they describe how to recover a substance from a</li> </ul>	<ul style="list-style-type: none"> <li>Can they describe methods for separating mixtures?</li> <li>Can they work out which materials are most effective for keeping something cold?</li> </ul>

	result in the formation of new materials, and that this kind of change is not usually reversible	<ul style="list-style-type: none"> <li>Can they use the terms reversible and irreversible?</li> </ul>	<p>solution?</p> <ul style="list-style-type: none"> <li>Can they use their knowledge of solids, liquids and gases to decide how mixtures might be separated?</li> <li>Can they give reasons based on evidence for comparative and fair tests for the particular uses of everyday materials – e.g. can they find a suitable material for their chocolate bar wrapper that would prevent melting or is bio degradable?</li> <li>Can they demonstrate that dissolving, mixing and changes of state are reversible changes?</li> <li>Can they explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible</li> </ul>	<ul style="list-style-type: none"> <li>Can they use their knowledge of materials to suggest ways to classify?</li> <li>Can they explore changes that are difficult to reverse?</li> <li>Can they explore the properties of composite materials or mix materials to create composite materials?</li> <li>Can they explore the work of Ruth Benerito (wrinkle-free cotton)</li> </ul>
<b>Art and Design</b>	<ul style="list-style-type: none"> <li>To design packaging and create effective advertising for their product</li> </ul>	<ul style="list-style-type: none"> <li>Can they create all the colours they need?</li> </ul> <p>Henry Rousseau – Rainforest Artist- Week 1.</p>	<ul style="list-style-type: none"> <li>Can they create mood in their paintings?</li> </ul>	<ul style="list-style-type: none"> <li>Do they keep notes in their sketch books as to how they might develop their work further?</li> <li>Do they use their sketch books to compare and discuss ideas with others?</li> </ul>
<b>DT</b>	<ul style="list-style-type: none"> <li>To design and make a chocolate bar and its packaging</li> </ul>	<p><b>Developing, planning and communicating ideas</b></p> <ul style="list-style-type: none"> <li>Can they come up with a range of ideas after they have collected information?</li> </ul> <p><b>Mouldable Materials</b></p> <ul style="list-style-type: none"> <li>Do they persevere through different stages of the making process?</li> </ul>	<p><b>Developing, planning and communicating ideas</b></p> <ul style="list-style-type: none"> <li>Do they take a user’s view into account when designing?</li> </ul> <p><b>Working with tools, equipment, materials and components to make quality products</b></p> <ul style="list-style-type: none"> <li>Can they explain why their finished product is going to be of good quality?</li> <li>Can they explain how their product will appeal to the audience?</li> </ul> <p><b>Textiles</b></p> <ul style="list-style-type: none"> <li>Do they think what the user would want when choosing textiles?</li> <li>How have they made their product attractive and strong?</li> <li>Can they make up a prototype first?</li> </ul>	<p><b>Developing, planning and communicating ideas</b></p> <ul style="list-style-type: none"> <li>Can they produce a detailed step-by-step plan?</li> <li>Can they suggest some alternative plans and say what the good points and drawbacks are about each?</li> </ul> <p><b>Working with tools, equipment, materials and components to make quality products</b></p> <ul style="list-style-type: none"> <li>Can they use a range of tools and equipment expertly?</li> </ul> <p><b>Textiles</b></p> <ul style="list-style-type: none"> <li>Can they use a range of joining techniques?</li> </ul> <p><b>Stiff and Flexible Sheet Materials</b></p> <ul style="list-style-type: none"> <li>Are their measurements accurate enough to ensure that everything is precise?</li> </ul> <p><b>Mouldable Materials</b></p> <ul style="list-style-type: none"> <li>Are they motivated enough to refine and improve their product?</li> </ul>
<b>RE</b>	<p><b>What is prayer and meditation?</b>  <b>Why do Buddhists meditate?</b>          What are the prayer rituals in Christianity, Islam and Judaism?          Which prayers are associated with certain occasions for <i>two different religions</i>?          Can I recognise some key prayers from major religions, and their significance?          Can I write a prayer or poem linked to my life and beliefs?          What does prayer or meditation mean to me?</p> <ul style="list-style-type: none"> <li>To empathise with a range of communities</li> </ul>	<p><b>Gain and Deploy Skills</b></p> <ul style="list-style-type: none"> <li>Discuss and represent their own views on challenging questions</li> </ul>	<p><b>Gain and Deploy Skills</b></p> <ul style="list-style-type: none"> <li>Can they consider and apply ideas about ways in which diverse communities can live together for the well-being of all</li> </ul>	<p><b>Gain and Deploy Skills</b></p> <ul style="list-style-type: none"> <li>Can they discuss and apply their own and others ideas about ethical questions</li> </ul>

DESCRIPTION OF LEARNING

LITERACY (including non-negotiables)		NUMERACY (including non-negotiables)
WHOLE CLASS TEXTS: The Great Kapok Tree by Lynne Cherry, Charlie and the Chocolate Factory.		
<b>Reading</b>	<b>Writing: To write a fact file and persuasive letter.</b>	
<p><u>Word Reading</u></p> <ul style="list-style-type: none"> <li>Attempt pronunciation of unfamiliar words drawing on prior knowledge of similar looking words.</li> </ul> <p><u>Comprehension</u></p> <ul style="list-style-type: none"> <li>Become familiar with a range of books, including myths, legends and traditional stories and books from other cultures and traditions.</li> <li>Recommend books to peers, giving reasons for their choices.</li> <li>Make comparisons between books.</li> <li>Learn poems by heart. For example, narrative verse, haiku.</li> <li>Prepare poems and plays to read aloud and to perform, showing understanding through intonation, tone, volume and action.</li> <li>Identify grammatical features used by writer – rhetorical questions, varied sentence lengths, varied sentence starters, empty words – to impact on the reader.</li> <li>Present the author’s viewpoint of a text.</li> <li>Retrieve and record information.</li> <li>Read non-fiction texts and identify purpose and structures and grammatical features and evaluate how effective they are</li> </ul> <p><u>Understand books read independently</u></p> <ul style="list-style-type: none"> <li>Check that the book is meaningful and discuss what has been understood.</li> <li>Ask questions to improve understanding.</li> <li>Identify the effect of the context on a text. For example, historical or other cultures.</li> <li>Make connections between other similar texts, prior knowledge and experience.</li> <li>Build on others’ ideas and opinions about a text in discussion.</li> </ul>	<p><b>Transcription</b></p> <p><u>Grammar and Spelling:</u></p> <ul style="list-style-type: none"> <li>Form verbs with prefixes. For example, dis, de, mis, over and re.</li> <li>Convert nouns or adjectives into verbs by adding a suffix. For example, ate, ise, ify.</li> </ul> <p><b>Converting nouns or adjectives into verbs using suffixes (e.g. –ate; –ise; –ify) Verb prefixes (e.g. dis–, de–, mis–, over– and re–)</b></p> <ul style="list-style-type: none"> <li>Understand the general rules for adding prefixes and suffixes above.</li> <li>Use dictionaries to check the spelling and meaning of words.</li> </ul> <p><u>Handwriting</u></p> <ul style="list-style-type: none"> <li>Year 4 Penpals (intervention groups where necessary)</li> <li>Write legibly fluently and with increasing speed</li> <li>Choose which shape of a letter to use when given choices and deciding, as part of their personal style, whether or not to join specific letters.</li> </ul> <p><b>Composition</b></p> <p><u>Plan writing.</u></p> <ul style="list-style-type: none"> <li>Identify the audience for and purpose of the writing.</li> <li>Select the appropriate form and register for the audience and purpose of the writing.</li> <li>Note and develop initial ideas.</li> <li>In writing narratives, consider how authors have developed characters and settings in what they have read, listened to or seen performed.</li> <li>Use the features and structures of text types taught so far</li> </ul> <p><u>Draft and Use the features and structures of text types taught so far write</u></p> <ul style="list-style-type: none"> <li>Use the appropriate grammar and vocabulary for the audience and purpose.</li> <li>Understand how grammar and vocabulary choices can change and enhance meaning.</li> <li>Understand how grammar and vocabulary choices create impact on the reader.</li> <li>In narratives, integrate description, action and dialogue to convey character and plot.</li> </ul> <p><u>Evaluate and edit</u></p> <ul style="list-style-type: none"> <li>Ensure the consistent and correct use of tense throughout a piece of writing.</li> <li>Ensure correct subject and verb agreement when using singular and plural.</li> <li>Proof-read for spelling and punctuation errors.</li> </ul> <p><b>Vocabulary, Punctuation and Grammar</b></p> <p><u>Develop Understanding of grammatical devices</u></p> <ul style="list-style-type: none"> <li>Use modal verbs or adverbs to indicate degrees of possibility.</li> </ul> <p><b>Indicating degrees of possibility using modal verbs (e.g. might, should, will, must) or adverbs (e.g. perhaps, surely)</b></p> <ul style="list-style-type: none"> <li>Use relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun.</li> </ul> <p><b>Relative clauses beginning with who, which, where, why, or whose or an omitted relative pronoun.</b></p> <p><b>Devices to build cohesion within a paragraph (e.g. then, after that, this, firstly)</b></p> <p><u>Indicate grammatical features with punctuation</u></p> <ul style="list-style-type: none"> <li>Use commas to clarify meaning or avoid ambiguity in writing.</li> <li>Use brackets, dashes or commas to indicate parenthesis.</li> </ul>	<p><b>Place Value (2 weeks approx.)</b></p> <p><i>Count forwards or backwards in steps of powers of 10 for any number up to 1 000 000.</i></p> <p>Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit.</p> <p>Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.</p> <p><b>Addition and Subtraction (2 weeks approx.)</b></p> <p><i>Add and subtract numbers mentally with increasingly large numbers.</i></p> <p>Add and subtract whole numbers with more than 4 digits, including using formal methods (columnar + &amp; -)</p> <p>Solve problems involving +, - and a combination of these, including understanding meaning of = sign.</p> <p>Use rounding to check answers and determine, in the context of a problem, levels of accuracy.</p> <p><b>Multiplication and Division (1 week approx.)</b></p> <p><i>Multiply and divide numbers mentally drawing upon known facts.</i></p> <p>Identify multiples &amp; factors; find all factor pairs of a number &amp; common factors of 2 numbers.</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 &amp; 1000. <i>(precursor to formal calculations – grid method)</i></p> <p><b>Multiplication and Division (2 weeks approx.)</b></p> <p><i>Identify multiples &amp; factors;</i> <i>Multiply and divide whole numbers and those involving decimals by 10, 100 &amp; 1000.</i></p> <p>Multiply numbers up to 4 digits by a one or two-digit number using a formal method, including long multiplication for two-digit numbers.</p> <p>Divide numbers up to 4 digits by a one-digit number using the formal written method of short division; interpret remainders appropriately for the context.</p> <p>Solve problems involving x, ÷ and a combination of these, including understanding meaning of = sign.</p>

**Use the terminology:**  
**Relative clause, modal verb, relative pronoun, parenthesis, bracket, dash, cohesion, ambiguity**

- Understand the terminology.
- Use the terminology to talk about own writing.
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**Consolidate from Year 4**

- Use different ways of opening a story.
- Use changes in time, place and events to link ideas across paragraphs.
- Use of brackets.
- Power of three: Long, long ago, before your time and mine... Silently, cautiously, yet determined...
- Experiment with order in sentences for impact:
- Sobbing piteously, she ran out of the crowded room.
- She ran out of the room, sobbing piteously.
- Use of rhetorical questions.

**Spelling**

- Words with 'silent' letters (i.e. letters whose presence cannot be predicted from the pronunciation of the word)  
*doubt, island, lamb, solemn, thistle, knight*
- Year 5 spelling list

GEOGRAPHY	HISTORY	ART/DT/MUSIC	SCIENCE	ICT (Including e-safety)
As geographers we will explore a range of aspects of the Amazon rainforest.	As historians we will research the history of the cocoa bean and how chocolate came to England.	As entrepreneurs we will create companies that will design, make and advertise original chocolate bars.	As scientists we will investigate changes to materials and understand what makes them reversible and irreversible.	Rising Stars – Digital Art and Vector Graphics.  E-Safety week.

SCHOOL VALUES				
LEARN TO LEARN SKILLS	ENVIRONMENT (including outdoor learning)	ENTERPRISE	COMMUNITY	ORACY / PRESENTATION
<p>We will develop our Learn to learn skills by:</p> <p><b>SELF MANAGERS</b></p> <ul style="list-style-type: none"> <li>▪ Organise things well, including resources and others.</li> <li>▪ Appreciate range of viewpoints, even when different from own.</li> </ul> <p><b>EFFECTIVE PARTICIPATORS</b></p> <ul style="list-style-type: none"> <li>• When making suggestions, can break down ideas into small steps.</li> <li>• Prepared to discuss and debate issues until a sensible compromise is reached.</li> </ul> <p><b>RESOURCEFUL THINKERS</b></p> <ul style="list-style-type: none"> <li>• Persevere even when the solution is not readily available.</li> </ul> <p><b>REFLECTIVE LEARNER</b></p> <ul style="list-style-type: none"> <li>• Understand that attitude and behaviour</li> </ul>	<p>Visit to the 'rainforest'</p> <p>Science links</p>	<p>To design and make a new chocolate bar.</p>	<p>Invite parents and carers to end of topic presentation.</p>	<p>End of term presentation to parents and carers showcasing their company, branding and chocolate bar.</p> <p>Debating the fate of the rainforest.</p>

can affect learning, and show they are prepared to adjust.

**INDEPENDENT ENQUIRERS**

- Recognise that sometimes you need expertise from others to help solve a problem.
- Choose how to present information.

**TEAM WORKERS**

- Share a working environment with others and respect their varying needs.
- Motivate others to contribute more effectively.

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