

## Year 4 Learning Challenge



How can we produce an informative resource so we can educate others about environmental issues?



Class texts- whole class reading, extracts, thematic books

- *Journey to the River Sea* by Eva Ibbotson
- *Water Dance* by Thomas Locker
- *Treasure Island*

Cognitive skills / meta-learning – specific teaching examples to use in learning

- *CAF- initial idea/ prior knowledge*
- *PMI- Evaluate subjects/ experiences*
- *APC-*
- *Collaboration/ planning- learning challenge*
- *Listening*
- *Absorption-*
- *Questioning*
- *Imitation-*

Killer Questions- those asked to measure understanding of pupils at key milestone points during the term

- *In your opinion, who is/was the greatest Ocean explorer and why?*
- *Thinking about impressionism, how does Monet give the feeling of distance?*
- *Can you draw and label the Water Cycle?*
- *How many layers is the ocean made up of?*
- *What are the features of a coast line?*

Hooks or memorable experiences

- *Make slime*
- *Make a collage of the sea using recycled materials*

Public Product – what will the outcome look like to demonstrate learning?

- *Present a T.V news broadcast about sea pollution and make a leaflet to give to people at the seaside*

Year Group	4	Term	Autumn	Challenge pack	Electric Avenue	
SUBJECT	Children will learn about/ will know WHAT? (Declarative knowledge)		Children will know HOW To...? (Procedural knowledge)		Prior learning (Schemata)	Vocabulary
History	<p>Who are the famous sea explorers of Great Britain in History? What are their greatest achievements? How did they contribute to ocean exploration?</p> <p>Sir Ranulph Fiennes - Ranulph Fiennes is the only man alive ever to have travelled around the Earth's circumpolar surface (more people have been on the Moon!) His record-breaking expeditions include travel by riverboat, hovercraft, manhaul sledge, skidoo, Land Rover and ski..</p> <p><b>Current and diverse Greta Thunberg Autism awareness week.</b> <b>Afroz Shah: the man behind the world's biggest beach cleanup</b> <b>Sir Francis Drake was born in Tavistock, Devon to a farming family t/diverse</b></p>		<p>H2.3b Identify changes, cause and impact at the time of events beyond our living memory</p> <p>PSHE: Aspect C: Living in the Wider World Roles and Responsibilities I can consider the different pathways that people might take in life I can explain how good values and behaviours can make someone a positive person or hero I can discuss the idea of 'personal strengths' and 'equal rights' and what these mean</p>		<p>Children understand that people's lives where different in different eras. H2.3c Make connections and contrasts over different periods of time</p>	<ul style="list-style-type: none"> <li>- Facts/opinion Evidence</li> <li>- Chronology - Research</li> <li>- Enquiry Comparison</li> <li>- Marine</li> <li>- Scientist</li> <li>- Maritime</li> <li>- biological</li> <li>-</li> </ul>
Art	<p>What is impressionism? Who is Monet? What makes Monet paintings different?</p> <ul style="list-style-type: none"> <li>• investigate the artwork of Claude Monet</li> <li>• learn about the ideas of Impressionism</li> <li>• engage in watercolour work in response to Monet's paintings of water lilies</li> </ul> <p>How does Monet give the feeling of distance? Perspective? [Clusters of flowers are smaller in the distance]. Are there any places where there is no paint? Monet uses layering of paint very effectively. The water is painted fairly thinly – sometimes the texture of the canvas can be seen. Other areas are painted over and over with many layers. The flowers are thick globs of paint that project from the surface and [in pictures where the bank is painted] plants tend to have lively swirls that suggest movement.</p> <p><b>Textiles/Collage/Printing Artists: Sheila Hicks, Laura Slater, Michelle Stitzlein, Naomi Renouf Diversity: Yinka Shonibare CBE, Illhwa Kim, Chila Kumari Singh Burman Themes: recycling/Oceans/abstract/geograph</b></p>		<p>A3.3d Explore more complex pattern and techniques to create designs for painting or printing Painting – Skills:</p> <ul style="list-style-type: none"> <li>• Work confidently on a range of scales e.g. thin brush on small picture etc.</li> <li>• Experiment with different effects and textures inc. blocking in colour, washes, thickened paint etc.</li> <li>• Use a developed colour vocabulary</li> <li>• Colour mixing primary, secondary and tertiary</li> <li>• Explore different types of brushes to create different strokes, layers and blends.</li> </ul>		<p>A2.1a Record and explore ideas from first hand observation or from experience and imagination</p>	<ul style="list-style-type: none"> <li>- Textures</li> <li>- Strokes</li> <li>- Implements</li> <li>- Tone</li> </ul>
Design Technology	<p><u>Structures/Construction</u> How can we build a submarine? Investigate how shape effects speed. What effect do forces have on a Submarine?</p>		<p>D2.1c Create a design for a product that is appealing, with clear steps to produce it so that it is fit for purpose D2.1d Produce a labelled plan, explaining my process of production</p>		<p>D2.1a Describe how my design ideas fulfils a purpose D2.1b Explain how my ideas meet set design criteria</p>	<p>submarine Assemble Reinforced</p>

	<p>Investigate shapes – How does the shape of a submarine effect how well it functions?</p>	<p>D2.4a Evaluate my product against its original design purpose and if it is appealing  D2.4b Describe how existing products with a similar design brief have been effective at their purpose  D2.4c Evaluate my work both during and at the end of the making process</p>	<p>D2.3b Measure, mark out, cut, score, join and assemble materials</p>	
<p>Geography</p>	<p><a href="https://worldoceansday.org/">https://worldoceansday.org/</a> World Ocean Day  How many layers is the ocean made up of?  Identify which animals of the sea would be in the different layers of the ocean and why. – Basket star, Dolphin, Viper Fish, Sea cucumber, Angler fish, Salmon, Octopus, and Amphipod.  Identify the layers of the sea. (geographical documentary).  Sunlight Zone - 90% of all ocean life lives here because the Sun can reach this layer. Twilight Zone - Up to 1000m below the surface of the ocean and creatures that live here have big eyes to help them navigate. Midnight Zone - It is pitch black in this layer and the creatures that live here produce their own light to hunt their prey. Abyss - 75% of the ocean bed is in this layer and only invertebrates can survive within the freezing temperatures. Trench - Up to 11,000m below the surface of the ocean and can only be explored using specialist scientific equipment.  <b>What are the features of a coast line?</b>  Examine photos of the coastlines around the UK.  Find the coastline on the map of the UK. Google maps.  How have they changed and why have they changed? How did they look in the past, how do they look today and how might they change in the future? Examine the erosion and deposition changes the look of a coastline. Which areas of the UK coastlines have been effected and why? How can we prevent this?  <b>How do rivers function? Why do rivers matter?</b>  Rivers (and estuaries, lakes and the sea) are a vital part of the world around us and we need to understand how they structured and how they function.  <b>What effect does pollution have on the sea?</b>  <b>How is pollution effecting the animals within the sea? How can it be prevented?</b>  Animals who are most often the victims of plastic debris include turtles, dolphins, fish, sharks, crabs, sea birds, and crocodiles. In addition, the temperature of the ocean is highly affected by carbon dioxide and climate changes, which impacts primarily the ecosystems and fish communities that live in the ocean.  (Watch Blue planet on pollution)  Research the positive actions of individuals and groups are benefitting our environment. - recycling, reducing and reusing their plastics.  <b>How can Devonshire reduce plastic waste?</b> Children to discuss and implement actions.  <b>What is the water cycle?</b>  <b>Research and examine the water cycle.</b> (• Evaporation • Condensation • Precipitation • Run off)</p>	<p>G2.1b Name and locate countries and cities of the UK, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns</p> <p>G2.2b Describe and understand key aspects of: <b>physical geography, including: climate zones, rivers, mountains, volcanoes and earthquakes, and the water cycle</b></p> <p>G2.3b Describe and understand key aspects of: <b>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</b></p> <p>G2.4c Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.</p>	<p>G2.3a Understand geographical similarities and differences between two regions (e.g. a region of the UK, a region in a European country and a region</p> <p>G2.4b Use the eight points of a compass, four figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world</p>	<p>Process of change Landscape settlements  Coast  Species  Aquarium  Algae  Tide  wave  Expanse  basin</p>

	Children to use drama to show the water cycle and carry out an experiment within class.			
Relationships to core subjects (Maths, English, Science)  PSHE /Citizenship	<p><b>Science</b> <b>Living things and their Habitats</b> Sc4/2.1a recognise that living things can be grouped in a variety of ways Sc4/2.1b explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment Sc4/2.1c recognise that environments can change and that this can sometimes pose dangers to living things. Sc4/2.2 Animals including humans Sc4/2.2c construct and interpret a variety of food chains, identifying producers, predators and prey.</p> <p><b>History Link Charles Darwin - English naturalist who sailed around the world cataloguing and studying new animal and plant species, author of the revolutionary theories of natural selection and evolution</b></p>	<p><b>S2.1g Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</b> <b>S2.1h Identify differences, similarities or changes related to simple scientific ideas and processes</b></p> <p><b>H2.3b Identify changes, cause and impact at the time of events beyond our living memory</b></p>	<p>explore and compare the differences between things that are living, dead, and things that have never been alive</p> <ul style="list-style-type: none"> <li>identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</li> <li>identify and name a variety of plants and animals in their habitats, including micro-habitats</li> <li>describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.</li> </ul>	<p><b>Habitat Environment Chain Predator Prey Consumer organism</b></p>
Music	<p><b>Who was George Frederic Handel?</b> George Frideric Handel was a German born English composer. He was born in Halle, Germany, on 23 February 1685. Even as a small boy he had a great love for music and was very musical. <b>What were Handel's most famous works?</b> Water Music, Royal Fireworks Suite, Messiah, Six Organ Concertos, Zadok the Priest, Rinaldo <b>Why is the Water Music suite famous?</b> Legend says the three suites were first played on a trip taken by King George I of England up the River Thames on 17 July 1717. The King had known Handel for a long time. For some reason though, he was angry with Handel. The Water Music was Handel's way of appeasing the King. Fifty musicians floated alongside the King's barge playing the suites. The King was so pleased he ordered Water Music to be played three times. <b>What is a trill?</b> The trill (or shake, as it was known from the 16th until the 19th century) is a musical ornament consisting of a rapid alternation between two notes.</p>	<p><b>M3.4a I listen to a wide variety of musical genres and comment using a range of musical vocabulary.</b> <b>M3.4c I can begin to identify works by the great composers</b> <b>M3.4d I listen to a wide variety of music and identify the musical genres.</b> <b>M3.4e I can use musical vocabulary confidently to describe the music I am listening to.</b></p>	<p><b>M3.4c I can begin to identify works by the great composers</b> <b>M3.4d I listen to a wide variety of music and identify the musical genres.</b></p> <p><b>Listening and appreciating music during assembly time.</b></p> <p><b>Listening to music of a similar genre during performance lessons</b></p>	<p><b>Trill Piano Mezzo piano Mezzo forte Forte Tempo Tempo Lento Largo Adagio Andante Vivace Allegro Presto</b></p>