



St Paul's Primary School, Newcastle. Glorifying Almighty God, and serving our community.

Investigating places		Investigating patterns	To Communicate Geographically
Class: 5/6		Title: Ocean Currents Biomes: Marine and Freshwater	
Topic summary: An ocean current is a continuous movement of ocean water from one place to another. Ocean currents are created by wind, water temperature, salt content and the gravity of the moon. The currents are called gyres and can flow for thousands of miles travelling clockwise in the northern hemisphere and anticlockwise in the southern hemisphere. Ocean currents affect weather patterns around the world: they transport warm water to colder areas and cold water to warmer ones. Biomes are a way to categorise the Earth's surface. These categories are based on climate patterns, soil types and the animals and plants that inhabit an area. Every part of the Earth's surface is a part of one or more biomes. The marine biome is the biggest biome in the world. It covers about 70% of the Earth. Marine regions are saline and contain millions of species of plants and animals. The amount of light in the marine biome gives it three zones. The freshwater biome is an ecosystem made up of any body of fresh water, such as lakes, ponds, streams and rivers. These cover approximately 20% of the Earth’s surface and are in various locations spread out all over the world. Most freshwater biomes consist of moving water and contain many types of fish.			
Geography Objectives		Unit of work end points	
• Collect and analyse statistics and other information in order to draw clear conclusions about locations. • Name and locate some of the countries and cities of the world and their identifying human and physical characteristics, including hills, mountains, rivers, key topographical features and land-use patterns; and understand how some of these aspects have changed over time. • Name and locate the countries of North and South America and identify their main physical and human characteristics. • Understand some of the reasons for geographical similarities and differences between countries. • Describe geographical diversity across the world. • Describe and understand key aspects of: • physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes and the water cycle.		Ocean Currents: • To know what creates an ocean current, identifying and labelling on a map the main ocean currents of the world • Explain how ocean currents affect the world’s climate • Explain the term ‘plastic pollution’ and how this relates to ocean currents • Describe what is known as the ‘Great Pacific Garbage Patch’ and how this is effecting our planet • To give some examples of gyres, also describing the rotation of gyres in the northern and southern hemisphere <u>Deeper learning:</u> • Investigate how melting polar ice caps may lead to changes in ocean currents. Biomes : • To know what a biome is (recap from Spring) • To name the main biomes (recap from Spring) • To name the main climate zones (recap from Spring) • To describe the difference between a terrestrial and aquatic biome (recap from Spring) • To know which biomes are in South America (recap from Spring) • Compare and contrast marine and freshwater biomes Marine Biomes: • Locate and label the marine biome on a map • To know and label the 3 vertical zones of the ocean • To know which plants and animals live in each zone and explain why they live there • To explain how photosynthesis and marine plants reduce the severity of climate change. • To discuss the impact phytoplankton has on the marine biome • To compare and contrast views to why some see coral reefs as part of the marine biome but some see them as a separate biome Freshwater Biome: • Locate and label the freshwater biome on a map • To describe what a freshwater ecosystem is • To know what form freshwater is in (E.g. as ice or in an aquifer) • To know and describe the 3 subdivisions of a freshwater biome (lakes and ponds, streams and rivers, and wetlands) • To know what plants and animals live in a freshwater biome/ subdivisions • Organise information about how human processes (E.g. water withdrawal, pollution, creation of dams and water-diversion systems) are damaging the freshwater biome and the habitats within it <u>Deeper Learning:</u> • Relate your knowledge of biomes to your knowledge of human processes. Draw conclusions as to why humans behave as they do in response to the conditions within a biome.	
Key vocabulary			
Continuous	Happening all the time without a break		
Gyres	Circular movements		
Pollution	A poisonous or dirty solution		
Garbage	American words for rubbish		
Vertical	With the top directly above the bottom		
Saline	Containing salt		
Detected	Found		
Photosynthesis	The way that green plants make their food using sunlight		
Ecosystem	All the conditions, plants and animals that exist in a particular area		
Aquifer	An underground area of rock that absorbs and holds water		
Habitats	The places where plants and animals live		