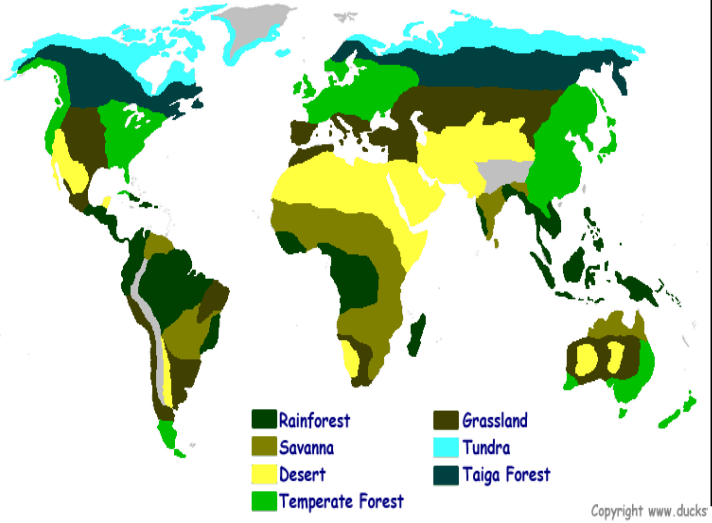
Earth Matters

Key vocabulary

Need to know	Nice to know	Super-specialist
Earth	savannah	precipitation
rainforest	tundra	evaporation
temperate forest	taiga forest	transpiration
desert	marine	ecosystem
grassland	fresh water	organism
water cycle	drought	northings
flood	nutrients	eastings
sunlight		nitrogen



Learning Journey—In geography, pupils will consolidate their knowledge of the key features of reading drawing, and finding information using maps, using this to display the patterns of land use nearby.

Pupils will learn about different biomes and locate these on a world map, explaining the different features of these and the factors that can threaten to destabilise an ecosystem.

Linked to science, pupils will consolidate their knowledge of the water cycle—this to the needs of ecosystems in different biomes. We will then explore what I climate change, learning about the causes and impacts of climate change on the natural world and on human populations.

Key Information and facts:

What is an ecosystem? Each individual plant and animal could not exist by itself on planet Earth. All living organisms need millions of other living organisms to survive. How these organisms interact with the sun, soil, water, air and each other in a specific area is called an ecosystem. An ecosystem describes a specific area where the organisms work together as a unit. It could be any size from a tiny pool of water to hundreds of square miles of desert. Each ecosystem is different and each has established a balance over time that is important to every form of life within the ecosystem.

What is a biome? A biome is way to describe a large group of similar ecosystems. Biomes have similar weather, rainfall, animals, and plants. There are a number of biomes on planet Earth.

The Balance of the Ecosystem. Ecosystems maintain important balances in order that all the organisms within the ecosystem can survive. These balances involve food, water, oxygen, nitrogen, and carbon. The sun provides the energy needed by ecosystems. Plants take this energy and use photosynthesis to create sugar which they can use for energy. Nutrients in the soil, the air, and water also play a part in keeping an ecosystem thriving and in balance.

Humans and the Ecosystem. Humans have adversely affected many ecosystems and biomes throughout the world. Cutting down trees, developing land, growing crops, burning fossil fuels, overfishing, and overhunting are just some of the ways that we have upset the balance of nature.

Links to prior learning:

Geography: Continents, oceans and seas; lines of latitude and longitude and the Equator

Science: Weather and climate; States of Matter; water cycle; causes and effects (friction), habitats.

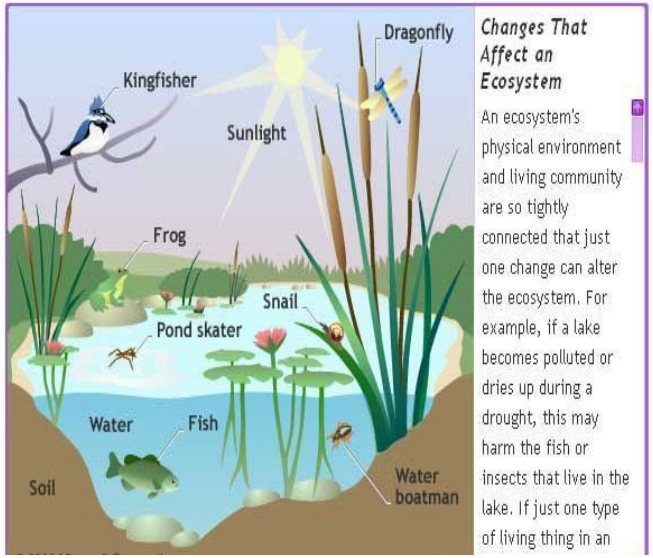
History: The Maya, Stone age to the Iron age.

Links to future learning:

Geography: The water cycle, weather patterns, human geography.

PSHE: The impact of climate change on ecosystems and communities around the world.

Science: Climate science, physical forces,



Key texts (recommended books to support teaching of Extreme Earth):

Paper world: Planet Earth by Ruth Symons and Bomboland; **The incredible ecosystems of planet Earth**, by Rachel Ignotofsky; **What a wonderful world**, by Leisa Stewart-Sharpe and Lydia Hill; **Our planet**, by Matt Whyman, Richard Jones and Sir David Attenborough; **Here we are: Notes for living on Planet Earth** by Oliver Jeffers; **Dear Earth** By Isabel Otter and Clara Anganuzzi; **Sona Sharma, Looking after Planet Earth,** by Chitra Soundar and Jen Khatun; **Earth Heroes**, by Lily Dyu and Amy Blackwell; **Window** by Jeannie Baker; **The story of climate change**, by Catherine Barr, Steve Williams, Amy Husband and Mike Love.

Suggested online resources for some natural disasters:

https://kids.britannica.com/students/browse/atlas

https://www.bbc.co.uk/bitesize/subjects/zbkw2hv

https://kids.kiddle.co/biomes

https://www.weatherwizkids.com/weather-rain.htm

https://www.bbc.co.uk/teach/class-clips-video/geography-ks1-ks2-the-water-cycle/zbcmxyc

There are many child-friendly videos on the topic of earth, ecosystems and the environment on YouTube!