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| **Substantive knowledge** Our curriculum supports pupils to:* Understand concepts, themes and genres
* Acquire and apply knowledge and skill
* Develop vocabulary
 | **Disciplinary knowledge**Our curriculum supports pupils to:* Interpret and use geographical sources and equipment
* Understand and describe geographical processes
* Identify cause, consequence, continuity.
* Present, organise and communicate.
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| **KS2 TIER 3 -  *all children will access KS1 Tier 2 at least once (Cycle A or B). Where learning is repeated, formative assessment will be used to ensure knowledge has been retained and can be retrieved, applied and deepened.*** |
| **Key concepts****Key vocabulary**  | **Location and place** | **Biomes and Natural Processes** | **Ecology + Human Processes** |
| TIER 3Cycle A | **North America & Asia** | **Biomes - Forest (tropical)/Forest (temperate) Grassland (savannah), Desert** | **Climate Change and sustainability**  |
| Accessing Prior Learning? **Can you describe South America? (KS2 Tier 2)**  | Accessing Prior Learning:**Can you name and describe different types of aquatic biome? (KS2 Tier 2)**  | Accessing Prior Learning: **What effects have humans had on the forests of South America? (KS2 Tier 2)**  |
| Acquiring + Attempting New Learning:North America:* North America is made up of many countries (including Canada, USA, Mexico)
* North America is in the northern hemisphere
* Northern most part of the continent is in the Arctic Circle, whilst the southern part is much closer to the equator so the climate is diverse.

Asia:* Asia is the largest continent both in size and population.
* There are 49 countries in Asia including India, China and Pakistan.
* Asian continent has a very diverse climate including arctic, tropical and desert landscapes.
* Mount Everest in the Himalayas is the highest mountain in the world.

CASE STUDY: **Canada*** Environmental regions
* Key physical and human characteristics
* Major cities
 | Acquiring + Attempting New Learning:Temperate Forest biome:* Temperate forest experiences all 4 seasons.
* Lots of rain fall and good fertile soil.
* The plants of the forest grow in 3 different layers. The canopy, understory and forest floor
* Made up of both deciduous trees and evergreen trees
* Temperate forests are found in eastern North America, north eastern Asia, and central and western Europe
* Each species of animal has adapted to survive the winter.

Grassland (Savanna):* Savannas have a rainy season in the summer and a dry season in the winter
* The savanna is rolling grassland with scattered trees and shrubs. Plants have adapted to survive the dry season.
* Savannas are generally found between the desert biome and the rainforest biome. They are mostly located near the equator.
* Largest savanna is in Africa

CompareCompare these biomes to each other and aquatic. | Acquiring Subject Knowledge Climate Change:* The main cause of climate change is burning fossil fuels such as oil, gas, and coal.
* 5 of the countries responsible for leading the cause of climate change are in Asia.
* Temperatures are rising two times faster in Asia than the global average, which is associated with an increase in weather-related natural disasters and their severity.
* By 2050, parts of Asia may see increasing average temperatures, lethal heat waves, extreme flooding, severe hurricanes and drought.

Renewable energy/alternatives to fossil fuels**Solar**:* The sun shines on the solar panels and the panels absorb the energy, creating direct current (DC) electricity.
* The electricity is fed into what is called a solar inverter. This converts the current into alternating current (AC) electricity.
* The AC current is then used to power the appliances in your home.
* Any power that your home does not need gets sent back (or sold) to the National Grid for others to use.
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| Cycle B | Acquiring + Attempting New Learning:North America:* North America is made up of many countries (including Canada, USA, Mexico)
* North America is in the northern hemisphere
* Bordered by Arctic Ocean, Atlantic Ocean, Pacific Ocean
* Northern most part of the continent is in the Arctic Circle, whilst the southern part is much closer to the equator.

Asia:* Asia is the largest continent both in size and population.
* There are 49 countries in Asia including India, China and Pakistan.
* Asia is surrounded by the Arctic Ocean to the north, Pacific Ocean to the east and the Indian Ocean to the south.
* Asian continent has a very diverse climate including arctic, tropical and desert landscapes.
* Mount Everest in the Himalayas is the highest mountain in the world.

CASE STUDY: **United States of America*** Environmental regions
* Key physical and human characteristics
* Major cities
 | Acquiring + Attempting New Learning:Tropical forest**:*** Tropical rainforests are hot and wet. They have high temperatures and heavy rainfall throughout the year.
* Tropical rainforests are found near the equator
* Amazon Rainforest is biggest rainforest in the world
* A rainforest is typically made up of four key layers: emergent, upper canopy, understory, and forest floor

Desert:* Deserts are defined by their lack of rain.
* Deserts get very hot during the day but quickly get cold at night.
* Only certain types of plants can survive the harsh environment of the desert. These include cactus, grasses, shrubs, and some short trees
* Many of the animals who live there are nocturnal. They sleep during the heat of the day and come out when it is cooler at night
* The largest hot and dry desert in the world is the [Sahara Desert](https://www.ducksters.com/history/africa/sahara_desert.php) in Northern Africa.

Compare* Compare these biomes to each other and aquatic.
 | Acquiring Subject Knowledge Climate Change:* The main cause of climate change is burning fossil fuels such as oil, gas, and coal.
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Renewable energy/alternatives to fossil fuels**Wind**:* Wind is a type of solar energy.
* Wind is caused by the uneven heating of the atmosphere by the sun, the differences in the earth's surface and the rotation of the earth.
* Wind flow can be harvested by wind turbines to generate electricity.
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|  | Applying Essential Learning:**Describe Asia and North America (North America in more detail).** | Applying Essential Learning:**Name and describe more than one biome. Can you compare them?**  | Applying Essential Learning:**What effects have humans had and continue to have on the environment? What solutions might there be to slow down the effects?**  |
| Mapping + fieldwork | Use a map, atlas, aerial photos or globe to locate countries and describe features. Northern and southern hemisphereUse 6 figure grid references. Observe, measure, record and present human and physical features in the local area.  |
| Impact evidence: * Pupil knowledge
* Class floor books
* Displays
* English books
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