

# Year 6 – Autumn 2 – ‘Earth Matters’

## NC Geography

- Describe and understand key aspects of climate zones, biomes and vegetation belts.
- Use maps, atlases and globes to locate countries and describe features studied.
- Describe and understand key aspects of physical geography (mountains) and human geography, including land use, economic activity and distribution of natural resources

## NC Science

- Build a systematic understanding of materials by exploring reversible changes, including evaporation and condensation
- To gain a deeper understanding of a biome as an ecological community

## What are features of mountains and ranges and where are they?

Provide chn with an envelope of different Mountain names mixed up with made up mountain names. Chn sort into piles. Assess current level of knowledge by sharing answers. Share video naming 5 different mountain types. [ <https://www.youtube.com/watch?v=HVqfaUWurSs> ] Look at pictures of mountains on their tables- sort into 5 piles for each type (fold, plateau, fault-clock, dome and volcanic).



Work together to write a shared definition of each mountain type then write up into books. Use smaller pictures to put into the table with other information about mountains e.g. name, type, part of which range, location and height.

Consider how likely it is that humans would be able to visit these places. Are there any that you know humans can visit? Are there any you know that cannot be visited? Why?

Transformation, Protest, Beauty, Rights, Responsibility, Sustainability

## How can a mountain environment be endangered by human activity?

Begin with a large sheet of paper with ‘Climate’ written in the middle- record as many words or phrases they can think of when they hear that word. Share suggestions and clarify that climate is a general pattern of weather. Share National Geographic clip about climate change and follow up question: *What might happen because of increased world temperatures?* (Mountain glaciers melt, deserts become drier, sea levels rise ‘swallowing’ up land). *What is the impact of this? What is the cause?* (Burning fuel, deforestation, pollution etc). Create diagram to demonstrate the causes of global warming. Thousands of people visit all sizes of mountains across the world for leisure and holidays. We know global warming poses a threat to mountains, but *What threat could visitors pose to the mountain environment?* Create ‘ways we damage the environment’ bullet points in books. Use these ideas to create the perfect ‘Eco-Tourist’ in books.

Transformation, Protest, Beauty, Rights, Responsibility, Sustainability

## How are plants and animals adapted and how can they be protected?

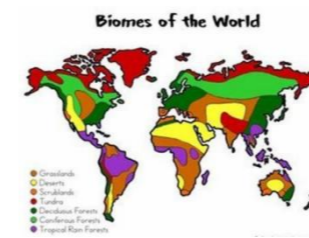
Recap how we limit damage to mountains- explain the importance of protecting animals and plants there too. Explain that mountain regions/climates provide a perfect habitat for some animals that are now endangered and could become extinct. Mountains are also home to some of our planet’s most popular plant foods (potato, maize, barley, apple, tomato) and have provided food for people and animals living in the mountains for hundreds of years. *Why might animals in these areas become endangered?* (loss of habitat, shortage of food, changing climate, hunting)

Read chn the letter from the WWF and explain that they have to create mini fact files about endangered animals who live in mountainous regions. Provide chn with pictures to stick in the middle of their books and surround with the subheadings: where is lives, its diet, how many species remain, why they’re endangered and what’s being done to protect them.

Transformation, Protest, Beauty, Rights, Responsibility, Sustainability

## What are biomes and where are they?

Show chn the collection of images of biomes from movies and Minecraft. *What links all these images?* Encourage them to make the connection that they are all places to live with their own unique set of characteristics (climate, vegetation and animals). These are called biomes; there are 2 types: natural biomes and artificial biomes (made by people to, for example, grow vegetation). Provide list of biomes (rainforest, savannah, tundra, taiga, desert, temperate, grassland) and characteristics for each. Match them up and justify choices. Using this knowledge plot where they think each of these biomes would be located around a world map. Use research to check and adapt before plotting and colouring in on a map using a key



Transformation, Protest, Beauty, Rights, Responsibility, Sustainability

## What is the role of the water cycle in a biome?

Recap types of biomes. Tell chn they are going to make a **biome in a bag** so that they can see the role the environment, especially the availability of water and light, plays on vegetation. Give them the instruction sheet for making a biome in a bag and the items they need to follow the instructions. When they have constructed their biomes and sealed them in a bag, talk through the diagram that explains how the biome will recycle the water trapped inside the bag. Share video of ‘40 year old biome in a bottle.’

*To create the conditions of the tundra biome, chn should keep their bag in the freezer.*

*To create the conditions of a desert, chn should keep their bags in direct sunlight for as much of the day as possible.*

*To create a rainforest climate, the bag should be kept in a warm place with little sunlight.*

Over time, chn should notice the evaporation, condensation and precipitation occurring in their freezer bag. Ask: *Based on your observations, can you work out why, in the world, it rains?*

Transformation, Protest, Beauty, Rights, Responsibility, Sustainability

## NC Citizenship

- To research, discuss and debate topical issues, problems and events
- To explore why and how rules and laws are made and enforced, why different rules are needed in different situations and how to take part in making and changing rules
- To know that there are different kinds of responsibilities, rights and duties at home, at school and in the community, and that these can sometimes conflict with each other
- To know that resources can be allocated in different ways and that these economic choices affect individuals, communities and the sustainability of the environment

BUILD YOUR OWN EDEN PROJECT/TRIP TO BOTANIC GARDENS WEEK 4



Transformation, Protest, Beauty, Rights, Responsibility, Sustainability

