

	Year	5	Topic	Deserts
 <p><b>Geography</b></p>	<p>In this topic, children will learn about the world's deserts, the uses and inhabitants of deserts and how living things adapt to living in such harsh climates, which builds upon previous knowledge of weather patterns and climates, features of biomes and climate change.</p> <p>Children will be introduced to the terms <i>salt plain</i>, <i>mushroom rock</i>, and <i>mesa</i> which builds upon children's knowledge of erosion from their year four topic of rivers and erosion caused by water.</p> <p>The skills children will develop will increase in complexity: using technology to analyse data and using Google Earth, globes and maps to research and locate places of interest.</p>			

Prior Learning	Future Learning
<p><b><u>Locational and Place knowledge:</u></b></p> <ul style="list-style-type: none"> <li>-Know the features of hot and cold places in the world (Y1)</li> <li>-Know where the equator, North Pole and South Pole are on a globe (Y1)</li> <li>-Know the names of and locate the seven continents of the world (Y2)</li> <li>-Know the names of 4 countries from the Northern Hemisphere and 4 countries from the Southern Hemisphere (Y3)</li> <li>-Know, name and locate the main rivers in the UK. (Y4)</li> </ul> <p><b><u>Human and Physical Geography:</u></b></p> <ul style="list-style-type: none"> <li>-Children will learn the difference between climate and weather (Y1, Y4)</li> <li>-Know the name of and locate a number of the world's longest rivers (Y4)</li> <li>-Explain the features of the water cycle. (Y4)</li> </ul> <p><b><u>Skills and fieldwork:</u></b></p> <p>N/A</p> <p><b><u>Global citizenship</u></b></p> <p>Children will understand how climate change affects the planet (Y4)</p> <p>Children will understand how we can reduce our carbon footprint (Y4)</p>	<p><b><u>Locational and Place knowledge:</u></b></p> <ul style="list-style-type: none"> <li>-Children will know where the main mountain regions are in the UK.</li> </ul> <p><b><u>Human and Physical Geography:</u></b></p> <ul style="list-style-type: none"> <li>-Children will know the names of a number of the World's highest mountains.</li> <li>-They will know why industrial areas and ports are important.</li> <li>-They will know the main human and physical differences between developed and developing countries.</li> </ul> <p><b><u>Skills and fieldwork:</u></b></p> <ul style="list-style-type: none"> <li>-Children will use google earth to locate a country or place of interest/follow the journey of rivers etc.</li> <li>-Children will know what most of the symbols on an ordnance survey map stand for.</li> <li>-Children will know how to use six-figure grid references.</li> </ul>

## National Curriculum Links

### Locational knowledge:

- Know the names of and locate a number of South or North American countries.
- Know where the Equator, Tropic of Cancer, Tropic of Capricorn and the Greenwich Meridian are on a world map.

### Place knowledge:

N/A

### Human and Physical Geography:

- Know what is meant by biomes and what are the features of a specific biome.
- Know the names of and locate some of the world's deserts.

### Skills and fieldwork:

- Use maps and globes to locate the equator, Tropics of Cancer and Capricorn and the Greenwich Meridian.

## Key Vocabulary

Biome, desert, erosion, salt plain, mushroom rocks, mesa, adaptation, arid/semi-arid, basalt, Aboriginal people, basin, desertification, fault line, fossil fuel, hemisphere, lava rock, marsupial, nomadic, oasis (oases), peninsula, radiate, terrain

## Recommended Texts & Web Links

Planet Earth I: Episode 5  
Planet Earth II: Episode 4

## What pupils need to know or do to be secure

### Key Learning

### Activities / Application of knowledge / Possible Evidence

#### What is a desert?

- Know what is meant by biomes and what are the features of a specific biome.

Create a presentation/fact file/David Attenborough style

-Children will be taught that deserts are regions where very few forms of life can survive due to lack of water, permanent frost or absence of soil which leads to lack of vegetation. Many believe that deserts are only hot and sandy however there can be frozen deserts too.

-Children will be taught that a region is officially classified as a desert when rainfall is under 250mm per year.

-Children will look at photos of different kinds of deserts and be able to explain why these locations are classed as a desert.

-Children will describe the three climate zones: arctic, tropical, and temperate.

-Children will identify the Arctic Circle and Antarctic Circle as imaginary lines on a map and the relative locations of the North and South poles.

### Where are the world's deserts?

-Know the names of and locate some of the world's deserts.

-Use maps and globes to locate the equator, Tropics of Cancer and Capricorn and the Greenwich Meridian.

-Know where the Equator, Tropic of Cancer, Tropic of Capricorn and the Greenwich Meridian are on a world map.

-Know the names of and locate a number of South or North American countries.

-Children will use maps and/or Google Earth to locate a number of the world's deserts and be able to talk about their location using the vocabulary: continent, country as well as the 8 compass points (built upon knowledge from Y3 and Y4).

-Children will use technology to research answers to the following questions:

- What is the name of the largest desert in the world?
- What is the name of the largest hot desert in the world?
- What is the name of the largest cold desert in the world?
- Which deserts have parts where rain never falls?
- Which is the only continent which has no deserts?
- What percentage of deserts in the world are sandy?
- What is the name of the foggiest desert in the world?
- What kind of desert is the Takla Makan Desert?

### How is a desert formed?

-Children will learn that a desert is formed when there has been a shortage of rain for a prolonged period of time.

-Children will learn that rock pillars and rock bridges can be formed in hot deserts due to erosion which is the gradual wearing away of the Earth due to water, wind and ice.

-Children will learn that salt plains are formed in cold deserts because water evaporates and leaves the salt from the sea water behind.

-Children will learn that mushroom rocks are formed when the calcium carbonate in water solidifies.

-Children will learn that mesas are formed by erosion, when water washes smaller and softer types of rocks away from the top of a hill.

documentary about desert formations.

Written explanations about why different areas are classified as deserts.

Research locations such a Kuwait, Phoenix (Arizona), Dubai and Lima and compare their populations, where the city is, which desert it is in and how they get their water.

Label deserts on world map.

Design an animal or plant which would be able to survive in a hot or cold desert.

Art piece based upon a desert formation using clay.

Use of AR/VR to explore different deserts.

### What are deserts used for?

- Children will know that natural resources are often found in deserts such as oil, salt, gold and diamonds.
- Children will be able to explain why lots of Arabian countries are rich and how the desert plays a part in this.
- Children will be taught that the deserts have lots of uses despite it being too hostile to live in. These uses range from scientific research, film sets and recreational activities.

### Who/what lives in deserts?

- Know the names of and locate a number of South or North American countries.**
- Children will be able to explain and discuss the challenges people and animals might face living in hot and cold deserts such as the temperature, lack of water and food and lack of transport.
- Children will learn that some cities have been built in the desert such as Las Vegas, Dubai and Abu Dhabi. These countries have a very big population. Children will be able to begin to discuss why it might be important to have a city in a desert and why that would be good for the country's economy. Children will begin to explain how these cities get water (water is transported from hundreds of miles away).
- Children will learn which animals live in the desert in preparation for the next lesson.

### How do plants and animals adapt to living in deserts?

- Children will learn about animals and plants that have adapted to living in a hot or cold desert (camel, meercat, cactus, naked mole rat = hot; arctic fox, jackrabbit, prickly pear = cold).
- Children will learn that animals and plants have had to evolve over thousands of years due to having a lack of something or change in their environment e.g. temperature, food source, water source, overcrowding, predators, pollution.
- Children will learn some ways which animals behave to help them survive in their habitat e.g. burrowing under sand to cool themselves down, huddling together to keep themselves warm, basking in the sun to help them maintain their internal temperature, being nocturnal to avoid the hottest parts of the day.
- Children will recognize that the Kalahari is known for its rich variety of plants and wildlife.
- Children will explain the ways that the San people have adapted to living in the desert.
- They will understand the unique land features and water resources of the Australian continent and relate how the traditional way of life for Aboriginal people suited the Australian Outback.

### Field Work / Enrichment

Visit the Birmingham Botanical Garden to see the desert plants (Arid house).