



# Mountains : Cross-Curricular Topic : Year 5/6

PlanBee

## Geography

1	Discover what mountains are and where the major mountain ranges are in the world.
2	Learn the names of famous mountains and find key facts about each one.
3	Investigate why mountains have their own climate and explore data for particular mountains.
4	Investigate what makes mountains popular tourist destinations and compare these destinations between seasons.
5	Evaluate the positive and negative impacts tourism has on mountain environments.

- KS2 - locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities
- KS2 - describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle
- KS2 - describe and understand key aspects of human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water
- KS2 - use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied

## Mountains

A KS2 cross-curricular topic for Year 5 and 6

## RE

1	Explore the fundamental beliefs of Buddhism and find out who Buddha was.
2	Discover Tibetan Buddhism and how the Chinese occupation of Tibet has affected religious life.
3	Investigate why Lhasa is important to Tibetan Buddhists.
4	Explore the Tibetan Buddhists' pilgrimage to Lhasa and the effect this has on their beliefs.

## Computing

1	Create a multimedia presentation on a particular mountain.
2	Create spreadsheets and graphs showing mountain data.

- KS2 - select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

## Science

1	Identify animals which live on Mount Everest.
2	Compare and group animals who live on Mount Everest and Ben Nevis.
3	Investigate how animals have adapted to their environments.
4	Sorting mountain animals into food chains and food webs.

- Year 5 - planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- Year 5 - recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- Year 6 - describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals
- Year 6 - identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution

## Art

1	Evaluate the mountain artwork of Albert Bierstadt.
2	Create artwork in the style of Nicholas Roerich.

- KS2 - to improve their mastery of art and design techniques, including painting with a range of materials
- KS2 - about great artists in history

# Mountains

## Teacher's Topic Planner

Maths

English

Science  
4 Lessons

PlanBee 

History

Geography  
5 Lessons

PlanBee 

RE  
4 Lessons

PlanBee 

Computing  
2 Lessons

PlanBee 

Art  
2 Lessons

PlanBee 

DT

PSHE

Music

# Mountains : Cross-Curricular Topic : Year 5/6

Teacher's notes:

**Science**

**Art**

**Geography**

**RE**

**Computing**



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GEOGRAPHY				
	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To find out how mountains are formed and where the major mountain ranges in the world are.	Children will explore the different ways that the Earth's tectonic plates and molten rock form different types of mountains. They then use maps and atlases to identify major mountain ranges around the world.	<ul style="list-style-type: none"> <li>Can children give the definition of a mountain?</li> <li>Do children know how mountains are formed?</li> <li>Can children name some of the major mountains and mountain ranges around the world?</li> </ul>	<ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 1A/1B/1C</li> <li>Atlases or world maps</li> <li>Domino Cards (FSD? activity only)</li> </ul>
Lesson 2	To investigate a mountain environment.	Children begin by discussing some basic facts about famous mountains. They look at a map to identify the mountains' locations and then use their research skills to think of questions they could ask about the mountains and find answers to these questions.	<ul style="list-style-type: none"> <li>Can children use a range of sources to find out about a particular mountain?</li> <li>Can children identify common features of mountain environments?</li> <li>Can children identify individual features of mountains?</li> </ul>	<ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 2A/2B/2C</li> <li>Books and access to internet, etc.</li> <li>Challenge Cards (FSD? activity only)</li> <li>Large sheets of paper (FSD? activity only)</li> </ul>
Lesson 3	To find out about mountain climates.	Children will investigate the climate of mountain ranges and how the altitude affects the weather as well as what kind of plants and trees can grow. They will also look at the temperatures for Mount Everest and how they change throughout the year.	<ul style="list-style-type: none"> <li>Do children know that mountains have their own climate because of their high altitude?</li> <li>Can children explain what a typical mountain climate might be like?</li> <li>Can children find out climate data for particular mountains?</li> </ul>	<ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 3A/3B/3C</li> <li>Access to internet</li> </ul>
Lesson 4	To investigate mountains as tourist destinations.	Children discuss the various uses of mountains and mountain ranges by different industries, including tourism. The children will think about the different activities that people can do in a mountain environment and use these ideas to create brochures or mountain holiday diaries.	<ul style="list-style-type: none"> <li>Do children know some of the different uses for mountains?</li> <li>Can children explain why mountains are such popular tourist destinations?</li> <li>Can children advertise and describe what a mountain would be like as a holiday destination?</li> </ul>	<ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 4A/4B</li> <li>Books, access to internet, travel brochures, etc.</li> <li>Challenge Cards (FSD? activity only)</li> </ul>
Lesson 5	To find out the positive and negative aspects of tourism in mountain environments.	Children are encouraged to think of the impacts that tourism might have on the mountain environment and how this might affect future tourists. They list the positive and negative impacts and come to their own conclusion about whether or not visiting a mountain as a tourist is a good or a bad thing.	<ul style="list-style-type: none"> <li>Can children describe how tourism benefits a mountain environment?</li> <li>Can children describe how tourism can harm a mountain environment?</li> <li>Can children make their own decisions about views of an environmental issue?</li> </ul>	<ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 5A/5B/5C</li> </ul>

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ART				
	Learning Objective	Overview	Assessment Questions	Resources
<b>Lesson 1</b>	To be able to create a painting in the style of Albert Bierstadt.	Children discuss and analyse Bierstadt's paintings and look at the different ways that he created light in his landscape paintings. They think about his use of colour and how he has romanticised the landscape views he painted. The children are challenged to create a painting in the style of Bierstadt's landscapes using one of the techniques they have discussed.	<ul style="list-style-type: none"> <li>• Do children know who Albert Bierstadt is?</li> <li>• Can children identify features of an artist's work?</li> <li>• Can children recreate a painting in the style of another artist, taking into account the features of their work?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Picture Cards A/B</li> <li>• Paints, paintbrushes, paper, etc.</li> </ul>
<b>Lesson 2</b>	To be able to create a mountain scene in the style of Nicholas Roerich.	Children learn about the artist Nicholas Roerich and what influenced his artwork. They think about which mountains would have inspired the Russian artist's work and discuss his use of religion as inspiration for many pieces of art. They are challenged to paint a mountain scene in the style of Roerich's work.	<ul style="list-style-type: none"> <li>• Do children know who Nicholas Roerich is and explain what he is famous for?</li> <li>• Can children identify features of an artist's work?</li> <li>• Can children experiment with colour, tone, line and shape to create a piece of art in the style of another artist?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Picture Cards</li> <li>• Paints, pastels, collage materials, etc.</li> </ul>

COMPUTING				
	Learning Objective	Overview	Assessment Questions	Resources
<b>Lesson 1</b>	To be able to create a multimedia presentation on a particular mountain.	Children will use software to create an interactive multimedia presentation on a chosen mountain. They can use text, images, sounds, videos and hyperlinks within their presentation to make it as interactive and interesting as possible.	<ul style="list-style-type: none"> <li>• Can children carry out research appropriate to the task?</li> <li>• Can children create a multimedia presentation to include text, pictures, videos and sounds?</li> <li>• Can children evaluate their work?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 1A/1B</li> <li>• Challenge Cards (FSD? activity only)</li> </ul>
<b>Lesson 2</b>	To be able to create spreadsheets and graphs showing mountain data.	Children will look at how they can use computer software to create charts and graphs to display data about different mountains. They will need to gather their data through research and use this information to create informative graphs.	<ul style="list-style-type: none"> <li>• Can children describe what a spreadsheet it and what it is used for?</li> <li>• Can children create a spreadsheet using a computer?</li> <li>• Can children use a graph tool to create a graph from a spreadsheet?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 2A/2B</li> <li>• Worksheet 2C (FSD? activity only)</li> </ul>

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RE				
	Learning Objective	Overview	Assessment Questions	Resources
<b>Lesson 1</b>	To find out about some of the fundamental beliefs of Buddhism.	Children will learn about Siddhartha Gautama and his journey to becoming Buddha. They will listen to his life story and learn about his teachings and different Buddhist beliefs, including Nirvana, the Four Noble Truths and reincarnation. Children are challenged to recall some of the fundamental Buddhist beliefs and forms of worship and have the opportunity to practise meditation.	<ul style="list-style-type: none"> <li>Do children know what Buddhism is?</li> <li>Do children know who Buddha was?</li> <li>Can children name some of the fundamental beliefs and practices of Buddhism?</li> </ul>	<ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 1A/1B/1C</li> <li>Information Sheet</li> <li>Meditation Sheet (FSD? activity only)</li> </ul>
<b>Lesson 2</b>	To find out about Tibetan Buddhism and the effect of the Chinese occupation of Tibet on religious life.	Children begin to focus their learning on Tibetan Buddhism and learn about how this branch of Buddhism differs from others. They will learn about the lamas of the religion and the significance of the Dalai Lama. The children then think about the invasion of Tibet by the Chinese and how this may have affected the religion and people who lived there.	<ul style="list-style-type: none"> <li>Do children know where Tibet is?</li> <li>Do children understand some of the effects of the Chinese occupation of Tibet in terms of religion?</li> <li>Can children name some of the features of Tibetan Buddhism?</li> </ul>	<ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 2A/2B</li> <li>Books, access to internet, etc.</li> <li>Large sheets of paper (FSD? activity only)</li> </ul>
<b>Lesson 3</b>	To find out about the holy city of Lhasa and why it is important to Tibetan Buddhists.	Children learn about the forbidden city of Lhasa and why it is important to Tibetan Buddhists. They will locate it within the Himalayan mountains and discuss why they think that foreigners were not allowed into the city.	<ul style="list-style-type: none"> <li>Do children know where Lhasa is?</li> <li>Do children know that Lhasa is the spiritual centre of Tibetan Buddhism?</li> <li>Can children identify why Lhasa is important to Buddhists today?</li> </ul>	<ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 3A/3B</li> <li>Books, internet, etc.</li> <li>Picture Cards (FSD? activity only)</li> <li>Art materials (FSD? activity only)</li> </ul>
<b>Lesson 4</b>	To find out how and why Tibetan Buddhists undertake pilgrimages to Lhasa.	Children will discuss what a pilgrimage is and why they think people take these long journeys to sacred places. They watch a video of a Buddhist's pilgrimage to Lhasa and explore what prostrations are and why they are performed. They will discuss the effects that the pilgrimages have on the people who take them and why they are meant to be hard journeys.	<ul style="list-style-type: none"> <li>Do children know what pilgrims and pilgrimages are?</li> <li>Can children explain why Buddhists undertake pilgrimages to Lhasa?</li> <li>Can children suggest reasons for the prostrations and difficulties Buddhists put themselves through during a pilgrimage?</li> </ul>	<ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 4A/4B/4C</li> </ul>



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SCIENCE				
	Learning Objective	Overview	Assessment Questions	Resources
<b>Lesson 1</b>	To be able to identify animals that live on Mount Everest.	Children are challenged to identify animals that live on Mount Everest by considering the environment they would live in and how this might affect their appearance. They must discuss the features of different animals and identify those which live in a mountain environment. They then have the opportunity to describe and research the different animals they have studied.	<ul style="list-style-type: none"> <li>• Can children identify some of the animals that live on Mount Everest?</li> <li>• Can children describe animals using appropriate vocabulary?</li> <li>• Can children suggest some of the ways in which animals on Mount Everest may be similar or different to animals in other mountain environments?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 1A/1B</li> <li>• Picture Cards</li> <li>• Animal List sheet (FSD? activity only)</li> <li>• Worksheet 1C (FSD? activity only)</li> <li>• Books, access to internet etc. (FSD? activity only)</li> </ul>
<b>Lesson 2</b>	To be able to compare and classify animals on Mount Everest and Ben Nevis.	Children begin by comparing animals from two different mountain environments: Ben Nevis and Mount Everest. They are introduced to some animals that live on Ben Nevis and are asked to group and classify the animals based on diet, classes or features.	<ul style="list-style-type: none"> <li>• Can children identify similarities and differences between animals in different mountain environments?</li> <li>• Can children classify animals into groups according to varying criteria?</li> <li>• Can children use a branching database to identify animals?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 2A/2B/2C</li> <li>• Picture Cards</li> </ul>
<b>Lesson 3</b>	To investigate how mountain animals have adapted to their environment.	Children look at the mountain animals in more detail. They look at the specific features that mean the animals are more suited to the harsher, colder mountain environment. They define the word 'adaptation' and think about how different animals have adapted to their environments.	<ul style="list-style-type: none"> <li>• Do children know what the term 'adaptation' means?</li> <li>• Can children describe some of the physical adaptations necessary for animals to survive in mountain environments?</li> <li>• Do children identify physical adaptations of particular mountain animals?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 3A/3B/3C</li> <li>• Worksheet 3D (FSD? activity only)</li> </ul>
<b>Lesson 4</b>	To be able to use food chains and food webs to show the feeding relationships between mountain animals.	Children will begin by defining what a food chain is and how energy flows along it. They will define the words: producer, primary consumer, and secondary consumer. They will then practise drawing food chains before moving on to explore food webs.	<ul style="list-style-type: none"> <li>• Can children explain what a food chain and a food web are?</li> <li>• Can children organise animals and plants into food chains?</li> <li>• Can children organise animals and plants into food webs?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 4A/4B/4C</li> <li>• Picture Cards</li> <li>• Challenge Cards (FSD? activity only)</li> <li>• Books, internet, etc.</li> </ul>