Collins

Scheme of work

Geography: Key Stage 1

Teachers Professional Development Programme

Enquiry 3: How does the weather affect our lives?

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Connecting the curriculum through enquiry based learning

Key Question: How does the weather affect our lives?

Learning objectives

During the enquiry pupils will have opportunities through the application and analysis of a wide range of geographical skills and resources to:

- Identify and describe the basic atmospheric elements of the weather;
- Observe, measure and record the elements of daily weather by using a variety of simple instruments and devices;
- Present, describe and offer reasons for some of the ways in which the weather has changed during the period of measurement;
- Identify, describe and begin to explain ways in which great artists depict elements of the weather and the techniques they use to convey noise, smell and emotional feelings;
- Observe how weather conditions change during the four seasons of the year and offer reasons for changes which occur;
- Recognise and describe how Vivaldi in his concerto *The Four Seasons* is able to create an evocative picture of changes in the weather from one season to another;
- Observe and offer reasons for the distribution of hot and cold places in the world;

Purpose of the enquiry

This enquiry provides an opportunity for pupils to understand the concept of **weather** (the very changeable conditions of the atmosphere at any given moment of time) and to form a solid foundation for studying **climate** (the average weather conditions of a place over an extended period of time – usually at least 30 years) in different contexts later in the programme.

Because geography is the study of the interactions of people with their environments, pupils are encouraged from the outset to investigate how weather affects them as individuals on a daily and seasonal basis. They should also explore how weather affects people in other locations around the world.

From local weather recordings, presentation and interpretation the pupils can expand their investigations of weather to identify and explain the distribution of hot and cold places in the world. In addition they are able to consider the concept of **seasonality** in weather and to connect this to how both artists and composers endeavour to convey how the elements of weather change during a typical year. This investigation also provides an opportunity to study in detail the weather conditions in two specific places (Sahara Desert and Antarctica). Consequently, this enables the pupils to understand the concept of **desert** and the nature of extreme environments and what might drive humans, such as Captain Scott to conquer them.

Context

With young geographers it is very important to begin enquiries and investigations with familiar elements and then progress, learning gradually, to encompass the unknown thus developing key geographical concepts on the way. This enquiry illustrates this approach very well. Plenty of time needs to be spent exploring the concept of weather at a personal and local level e.g. through observations in the school grounds. This can be followed by discussing recent weather events such as a thunderstorm or very warm period as well as the weather pupils experienced during recent holidays or on their birthdays etc.

With the concept well established this enquiry moves from the familiar to the unfamiliar – hot and cold places in the world. Weather in a selection of different countries is studied with a focus on the Sahara Desert and Antarctica during which the emphasis, all the time, is on how weather impacts human beings and creates different environments.

National Curriculum coverage Geography

Locational knowledge

- Name and locate the world's seven continents and five oceans.

Human and physical geography

- Identify daily and seasonal weather patterns in the United Kingdom and the location of hot and cold areas of the world in relation to the Equator and the north and south poles.
- Use basic geographical vocabulary to refer to key physical and human features.

Geographical skills and fieldwork

- Use world maps, atlases and globes to identify the countries, continents and oceans studied at this key stage.
- Use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features.
- Use simple fieldwork and observational skills to study key human and physical features of environments.

Connections to the subject content of other curriculum areas

English

Teachers should develop pupils' spoken language, reading, writing and vocabulary as integral aspects of the teaching of every subject. English is both a subject in its own right and the medium for teaching; for pupils, understanding the language provides access to the whole curriculum. Fluency in the English language is an essential foundation for success in all subjects.

Key Question: How does the weather affect our lives?

- **Explain** in simple terms why the temperature of places decreases with distance from the Equator towards the north and south poles;
- **Compare and contrast** the environments of Antarctica and the Sahara Desert and begin to **explain** through **reasoning** the similarities and differences;
- **Understand** why Captain Robert Scott and his team wanted to be the first human beings to reach the South Pole, the reasons for their failure and **empathise** with the emotions they would have felt as a result;
- **Locate** the Amazon Basin on a labelled world map, **describe** its typical daily weather, suggest **reasons** for why it's so hot and wet and **explain** why it's so different from the Sahara Desert and Antarctica;

Key Subject Vocabulary

Weather; Rainfall; Temperature; Sunshine; Wind; Fog; Snow; Tornado; Drought; Cloud; Thermometer; Anemometer; Rain gauge; Weather vane; Compass; Season; Winter; Spring; Summer; Autumn; Thunderstorm; Ice; Country; City; Lagoon; Canal; Island; Equator; North Pole; South Pole;

Spoken language

Pupils should be taught to speak clearly and convey ideas confidently using Standard English. They should learn to justify ideas with reasons; ask questions to check understanding; develop vocabulary and build knowledge; negotiate; evaluate and build on the ideas of others; and select the appropriate register for effective communication. They should be taught to give well-structured descriptions and explanations and develop their understanding through speculating, hypothesising and exploring ideas. This will enable them to clarify their thinking as well as organise their ideas for writing.

Reading and writing

Teachers should develop pupils' reading and writing in all subjects to support their acquisition of knowledge. Pupils should be taught to read fluently, understand extended prose (both fiction and non-fiction) and be encouraged to read for pleasure. Schools should do everything to promote wider reading. They should provide library facilities and set ambitious expectations for reading at home.

Pupils should develop the stamina and skills to write at length, with accurate spelling and punctuation. They should be taught the correct use of grammar. They should build on what they have been taught to expand the range of their writing and the variety of the grammar they use. The writing they do should include narratives, explanations, descriptions, comparisons, summaries and evaluations: such writing supports them in rehearsing, understanding and consolidating what they have heard or read.

Numeracy and Mathematics

Teachers should use every relevant subject to develop pupils' mathematical fluency. Confidence in numeracy and other mathematical skills is a precondition of success across the national curriculum.

Teachers should develop pupils' numeracy and mathematical reasoning in all subjects so that they understand and appreciate the importance of mathematics. Pupils should be taught to apply arithmetic fluently to problems, understand and use measures, make estimates and sense check their work.

Pupils should apply their geometric and algebraic understanding, and relate their understanding of probability to the notions of risk and uncertainty. They should also understand the cycle of collecting, presenting and analysing data. They should be taught to apply their mathematics to both routine and non-routine problems, including breaking down more complex problems into a series of simpler steps.

Art and design

Pupils should be taught to:

- Use a range of materials creatively to design and make products.
- Use drawing, painting and sculpture to develop and share their ideas, experiences and imagination.
- Develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space.
- Explore the work of a range of artists, craft makers and designers, describing the differences and similarities between different practices and disciplines, and making links to their own work.

Computing

Pupils should be taught to:

- Recognise common uses of information technology beyond school.

History

Pupils should be taught about:

- Changes within living memory. Where appropriate, these should be used to reveal aspects of change in national life.

Key Question: How does the weather affect our lives?

Key; Solar; Desert; Continent; Ocean; Sahara; Antarctica; Blizzard; Expedition; Environment; Atmosphere.

Music

Pupils should be taught to:

- Listen with concentration and understanding to a range of high-quality live and recorded music.
- Experiment with, create, select and combine sounds using the inter-related dimensions of music.

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Ancillary Question 1: What is the weather?

Show the pupils the images in **Resource 1** and ask them to identify and describe what the **weather** is like in each. Consolidate and write up on the board, the key subject vocabulary as it emerges – **rain, sunshine, wind, fog, snow, tornado, drought, cloud, temperature** etc. The objective here is for the pupils to consider the elements which make up weather (the atmospheric conditions at any given moment in time) and explore which of these can change very quickly e.g. temperature, rainfall, wind, cloud cover, sunshine etc. Now ask the pupils to consider what the weather has been like since they got up in the morning? Is the weather exactly the same today as it was yesterday? How has it changed? Will it to be the same tomorrow? Ask the pupils to reflect upon how the weather has changed over the past few months e.g. since the summer or half term?

Exploring the concept of weather in the school grounds

Observing, recording and explaining changes in the weather through fieldwork

Observing and then recording, presenting and interpreting simple measurements of atmospheric conditions on a daily basis, is a very effective way of supporting younger pupils to understand how changeable the elements which make up the weather in the atmosphere really are. Simple recording instruments need not be expensive to acquire and/or make and many can be made from everyday materials. It is most effective if the data is collected at the same time every day for at least a month. This generates enough information from which the pupils will be able to identify basic patterns and draw simple conclusions. Taking the following weather recordings works well with younger pupils:

- maximum and minimum temperature – requires a maximum and minimum thermometer showing the highest and lowest temperature recorded over a 24 hour period
- wind speed using a simple wind gauge (anemometer)
- wind direction using a basic weather vane and a compass
- rainfall using a rain gauge
- Cloud cover is measured in units called **oktas** and each okta measures one eighth of the sky covered by cloud. Cut out eight squares from a large piece of card and have the pupils hold this up to the sky and estimate how many of the squares are covered.

The data collected from these five measurements can then be entered each day onto a simple **Excel** spreadsheet. At the end of the month the pupils can be supported to produce a range of graphs and charts from the spreadsheet to indicate how each of the variables (the five elements of the weather they have been observing) has changed. It is important here to enable pupils to identify and describe any changes they can see and then to encourage them to suggest reasons for any patterns they can see e.g. for why it may have become warmer/cooler/wetter/drier over the month or why the wind appears to be blowing mostly from one direction etc.

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The film at www.bbc.co.uk/education/clips/z9g87ty is a good introduction for the pupils to the measurements they will be taking and the Meteorological Office booklets at http://www.rmets.org/sites/default/files/pdf/simweameasurements.pdf provide advice and instructions for simple homemade and purchasable weather recording instruments such as those shown in the film. Stockists of wet and dry thermometers, anemometers, simple wind vanes and rain gauges include www.metcheck.co.uk/acatalog/Min_Max_Thermometers.html.
For support related to Excel spreadsheets see www.youtube.com/watch?v=8L1OVkw2ZQ8

On sunny days

A sunny day provides great opportunities to investigate light and shade. Look for shadows of all kinds; people, trees, flowers etc. Are they the same? How are they different? Can you get away from your shadow? Why? Why not? How can we make our shadows change shape or disappear? Draw around each other's shadows using playground chalks. Stand the pupils in the same spot every hour and re-chalk the shadow to show how it moves as the day progresses. Chase shadows and try and jump on them. Make some simple shadow puppets indoors, for use outside. Create a simple sundial, using a stick that has been pushed into the ground, or position one using some Play-Doh® or Plasticine®. Make sure that there are plenty of sticks available so that children can make their own.

On rainy days

When it rains get the umbrellas out and dance in the rain. Listen to the sounds that the rain makes. Attach small bells, corks or buttons to pieces of thread and tie them to the umbrella spike. Take them outside in the rain and listen for some unusual sounds. Put welly boots and waterproofs on and jump in puddles. Discover different ways to collect the rain. Examine raindrops on leaves, grass, windows and flowers. Provide magnifying glasses so that the children can look really closely. What do they notice? Challenge the children to bring a puddle indoors using sponges or pipettes to transfer the water in the puddle to a container. Watch puddles disappear in stages by drawing in chalk around them and watch them shrink in size as the water evaporates. Sprinkle cooking oil in puddles to make 'rainbows' as well as powder paints and inks. Float different things in the puddles. Investigate a range of materials to see what is waterproof and what is not.

On cold, frosty, icy and snowy days

When it is frosty place a gloved hand in a frosty place and watch the frost thaw. Scrape ice from windows and photograph the frost. Use the photographs as inspiration for creative work, indoors and out. During very cold weather place containers of warm water outside at the end of the day and then return to it first thing in the morning when the liquid has frozen. Bring it indoors and watch it thaw out again. Press gently with welly booted feet on shallow frozen puddles. Look for bubbles underneath. Listen for the cracks as puddles break. On snowy or frosty days fill squirty bottles with warm water and add food colouring. This can be squirted onto the snow to make patterns and pictures or even to 'write' with. Children can also make marks using sticks to scrape in the snow, while painting in the snow gives children the chance to see how melting snow affects both the mark and the colours, as they mingle. Using snow as a canvas allows the children to see contrasts of colour and texture. The children can collect items to make the pictures such as sticks, berries, stones and soil. Set up skittles or bottles weighted slighty with water and use them as targets for snowballs to encourage hand-eye coordination. A target can also be chalked onto a wall and snowballs thrown against this. Marking numbers onto the target will encourage number recognition. Things can be frozen into ice and then hung up as 'glass' ornaments outside. Freeze water in a variety of containers, allowing the children to see the different rates of melting for big and small, or thin and thicker pieces of ice. Anything can be placed into the water to freeze into it, from berries to leaves to items relating to topics of interest. To allow them to hang, weight the end of a long string and drop it into the water, wrapping the other end of the string around a stick propped over the container. Once frozen, the string can be tied round branches or fences.

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On windy days

On windy days help the children to experience the sensation of the wind in their faces. Create some streamers, flags or balloons tied to a fence or post to show how windy it is. Move these around to different places in the school grounds to find the most sheltered and windiest spots. Fill up a washing-up bowl to almost overflowing so that the wind will 'catch' it and create small waves and ripples. Make some simple sailing boats with the children and investigate what happens when they are placed on the water to sail. Wash the doll's clothes and let the children peg them out on a windy day and watch them dry. Make wind chimes from reclaimed materials including some metal, such as old keys, bells, and cutlery etc. Hang them on wire coat hangers outside and listen to the noises they make on windy days.

NOTES

Ancillary Question 2: How do great artists paint the weather?

This line of enquiry provides an opportunity to explore, with pupils, how artists in their paintings not only illustrate elements of the weather but also make the observer almost feel, smell and hear the atmospheric conditions depicted. Following on from this the pupils can be encouraged to paint a seasonal weather picture of their own in a style that both shows the weather conditions and also creates a 'feeling' of what the weather is like for people in the painting. For example, a picture of a winter snow scene might include a person or animal bent over trying to struggle through a blizzard.

Resource 2 contains a number of pictures of the weather by great artists down the years. Encourage the pupils to identify the weather conditions shown and to discuss which season of the year they think is portrayed. In each case consider how the artist is making us feel when we look at the painting? Do we 'feel' the weather? If so how does the artist achieve this? Why do we feel warm or cold, happy or sad when observing the paintings? How can we go about getting the feeling of weather across in our own paintings?

Painting 1: JMW Turner 1842: *Snow Storm: Steam-Boat off a Harbour's Mouth* see: https://en.wikipedia.org/wiki/Snow_Storm:_Steam-Boat_off_a_Harbour%27s_Mouth

Painting 2: Katsushika Hokusai c 1820: *The Great Wave* see: https://en.wikipedia.org/wiki/The_Great_Wave_off_Kanagawa

Painting 3: Vincent van Gogh 1889: *Wheatfield with a Reaper* see: http://www.vangoghmuseum.nl/en/collection/s0049V1962

Painting 4: Gustave Caillebotte 1877: *Paris Street: Rainy Day* see: https://en.wikipedia.org/wiki/Paris_Street;_Rainy_Day

Painting 5: Claude Monet 1868: *The Magpie* see: www.youtube.com/watch?v=7FRGScyukS0 and https://mydailyartdisplay.wordpress.com/2013/01/16/the-magpie-by-claude-monet/

Painting 6: Pieter Bruegel the Elder 1565: *Hunters in the Snow* see: www.khanacademy.org/humanities/renaissance-reformation/northern/antwerp-bruges/v/bruegel-hunters and www.visual-arts-cork.com/famous-paintings/hunters-in-the-snow.htm

Painting 7: Claude Monet 1875: *Woman with a Parasol* see: https://en.wikipedia.org/wiki/Woman_with_a_Parasol_-_Madame_Monet_and_Her_Son

Painting 8: David Hockney 1967: *A Bigger Splash* see: https://en.wikipedia.org/wiki/A_Bigger_Splash

Painting 9: John Everett Millais 1856: *Autumn Leaves* see: www.victorianweb.org/painting/millais/paintings/7.html

Painting 10: Samuel Palmer 1833: *Harvest Moon* see: www.youtube.com/watch?v=xv8G87YnN4k

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Ancillary Question 3: How does the weather change through the seasons of the year?

Show the pupils the time-lapse films showing the seasons of the year changing at: www.youtube.com/watch?v=lmIFXIXQQ_E and www.youtube.com/watch?v=mzNUrZbalss Spend time talking with the pupils about what they can see happening in the films. How are the places changing through the year? Ask the pupils to think about how the weather changes during the year. What is the weather usually like when they are away from school in August; around the time of their birthday; at school half-term; on Bonfire Night; at Halloween; during annual holidays; during religious festivals etc.? The important thing here is for the pupils to recognise that weather changes during the course of the year as the seasons change – winter, spring, summer and autumn – and that the same place will look and feel very different during the course of the year. Images such as that in **Resource 3** can assist here and the pupils could create a collage to show changes to the environment. They could include corresponding human activities, such as celebrations during the seasons, using internet sourced images.

The Four Seasons composed in 1723 by the Italian Antonio Vivaldi is the most famous descriptive piece of music depicting seasonal change. Vivaldi lived in Venice during the height of the Baroque period and composed over 1000 musical pieces of which 200 were violin concertos such as the set of four which make up *The Four Seasons*. A **concerto** is a musical composition that features a solo instrument (in this case the violin) interacting with the full orchestra. Play the pupils the three movements (or sections) of the *Spring* concerto to illustrate this www.youtube.com/watch?v=VmCYWwnZmx4. To accompany each of his concertos of the four seasons Vivaldi also wrote a poem (a sonnet consisting of 14 lines) – those for *Spring, Summer and Winter* are included in **Resource 4**. Choose a sonnet for one of the seasons and read it through several times to the pupils – explaining new vocabulary as appropriate. Next ask the pupils to listen to Vivaldi's concerto for that season – see www.youtube.com/watch?v=GRxofEmo3HA and in particular to listen out for the ways in which the music describes, matches, represents and depicts natural events in the poem. For example birds singing, thunderstorms and rain, streams and rivers flowing, trees rustling, the wind, insects as well as human activities and emotions such as running, slipping on the icy ground, feeling frightened or cold or comfortable and content inside a nice sheltered and warm house.

This can be extended to supporting the pupils to create their own musical compositions based on the sonnet for one of the other seasons. Divide the pupils into groups of four and assemble a wide range of instruments such as recorders, drums and maracas together with other potential sources of musical sound such as pots and pans, bottles, cutlery, wind chimes, plastic and wooden boxes of different sizes, china etc. Read the sonnet for the season that the pupils are going to compose for several times and write key information on the board that the pupils need to remember to include in their composition. Allow plenty of time for the pupils to complete this activity and to perform their piece when they are happy with it. Additional background information on Vivaldi and *The Four Seasons* and suggestions and guidance for extended activities with older pupils can be found at http://artsalive.ca/pdf/mus/tour2004/vivaldi2004_en.pdf

At some point during this ancillary question make purposeful links to the modern day country of Italy and the city of Venice in which Vivaldi lived and composed between 1678 and 1741. Use the map of Europe in **Resource 5** to locate Italy in relation to the United Kingdom and **Resource 6** to locate the city of Venice within Italy. Show the pupils the satellite image and map of Venice in **Resource 7** together with the images of the city in **Resource 8**. What do they notice about the city of Venice? It is built on over 100 small islands in a lagoon (a shallow body of water separated from a larger body of water by islands or reefs). Each of the islands of Venice is separated by canals and connected by bridges. If time permits, a comparison could be made with Amsterdam (often referred to as 'the Venice of the north') to identify similarities and differences between the two cities.

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Ancillary Question 4: Why isn't the weather the same everywhere in the world?

Introduce the pupils to the map of hot and cold places of the world in **Resource 9**. Take time to explain what a **key** on a map does – it explains to us what the signs and symbols on the map mean. So on this map some places have just one symbol e.g. orange whilst others have more than one symbol e.g. orange and speckled red together. Now encourage the pupils to use the political map showing the countries of the world in **Resource 10** as well as the map of hot and cold places in **Resource 9** to describe what weather is mostly like in each of the following: United Kingdom; Cuba; Senegal; Zambia; France and New Zealand – all of these countries will just have one classification. Most countries of the world will fall into one or more categories of the weather key on the map. Challenge the pupils now to read the key to say what the weather is mostly like in Canada (cold and very cold with small areas which are warm and occasionally hot); Brazil (hot and wet); Australia (hot, hot and wet; warm and warm and wet) and China (warm, warm and wet, cold and hot).

Using a globe together with the map in **Resource 9** ask the pupils what they notice about where most of the cool and cold places occur compared with warm and hot places? Generally speaking the greater the distance from the Equator (an imaginary line drawn around the Earth exactly halfway between the north and south poles) then the colder it becomes with places closer to the Equator being much warmer. Why do the pupils think that the further north or south you travel in the world, towards the north and south poles, then the colder it becomes? In contrast why is it much warmer around the Equator of the Earth? Ask the pupils to think about why, in the United Kingdon, it is warmer in the summer than in the winter? What makes us warm and provides us with heat? When do we feel most cold during the year? The answer of course is the Sun.

In summer we receive much more sunshine than in the winter so we therefore feel much warmer. As a result, we are more inclined, for example, to visit the beach in the summer than we are in winter! So it is the same with the Equator and north and south poles. Very simply, places around the Equator receive more sunshine during the year than places close to the north and south poles. More sunshine or solar energy means warmer weather and less sunshine/solar energy means cooler weather. This can be illustrated very effectively by holding up a globe and encouraging a pupil to shine a torch (representing the Sun) at it. Because the world is round, the middle band of the Earth around the Equator is closer to the Sun. Also, the Sun's rays are falling on a much smaller area at the Equator than at the poles and therefore they are more intense.

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Ancillary Question 5: How can Antarctica be a desert when it's the coldest place on Earth?

Divide the pupils into pairs and give each pair a set of the photographs in **Resource 11**. Ask them to make up two sets or categories of images – one for the Sahara Desert and one for Antarctica. Once complete, ask the pupils to compare and contrast the two sets of photographs. Following this, show the pupils these two short films of the Sahara at www.youtube.com/watch?v=hbjWnjkLB4M and Antarctica at www.youtube.com/watch?v=sIujRh4g6lw. In what ways is the Sahara Desert different from Antarctica? This will be straightforward for the pupils as the differences are clearly obvious – the landscape of Antarctica is mostly snow and ice compared with the sand, rocks and sand dunes of the Sahara.

Now encourage the pupils to think about why they are so different linking back to their work in the last enquiry on hot and cold places – because the Sahara is much hotter than Antarctica. In fact the highest temperature ever recorded in the Sahara Desert was 47.6 °C at Faya-Largeau in Chad compared with the lowest ever recorded (–89.2 °C) at Vostok Station in Antarctica. Their landscapes look the way they do because one is so hot and the other is so cold.

Next ask the pupils to think about how they are similar to each other? Encourage discussion and speculation. Explain that although being very cold, Antarctica is also a desert just like the Sahara. How do the pupils think this could possibly be when Antarctica is the coldest place on Earth? Encourage the pupils to think about how else deserts might be defined, if not by temperature? Being a desert is clearly not linked to how hot a place is so what could be the most important thing? How much rain a place receives! Deserts are defined by rainfall. Anywhere in the world, receiving less than 250 mm of rainfall a year is classified as a desert, regardless of how hot or cold it is. Both Antarctica and the Sahara are very dry and fall well below this figure. Antarctica has an average of only 166 mm a year and the Sahara has an annual average of just 25 mm.

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Ancillary Question 6: Why do we remember Captain Robert Scott and his friends Lawrence, Henry, Edward and Edgar?

Show the pupils the photographs of the five men in **Resource 12**, introducing them by name. Encourage the pupils to speculate as to why we might remember them for what they achieved over 100 years ago in 1912. Are there any clues in the pictures of them? What might they have achieved and where? To develop the pupils' thinking, further distribute copies of the images in **Resource 13** which provide more clues as to what these men did. Show the pupils the map of Antarctica in **Resource 14** and explain that what they achieved had something to do with this continent and the South Pole in particular.

In 1911/12 the five men walked (with horses pulling their sledges across the Ross Ice Shelf and the Transantarctic Islands) a return distance of nearly 3000 km to become the first British people (and only the second group of people in the world) to stand at the South Pole (see **Resource 15** which shows all five men standing at the South Pole). Sadly, as a result of the extreme cold and blizzard conditions (leading to hunger and exhaustion) they encountered on their return trip from the South Pole, all five men died on their way home. All five became heroes in Britain for what they had achieved and for their immense courage and determination in the face of the most extreme weather conditions to be encountered anywhere in the world.

Explain to the pupils that 100 years ago there were no internet connections or mobile phones. Very few homes even had a landline. As a result, communication was only by letter and even this was impossible for Captain Scott out in the wilderness of Antarctica. Each day Captain Scott wrote a diary of events to record what had occurred and to use on the return journey, to remind him of the order in which things happened and the emotions he felt – see the image of Captain Scott writing his diary in **Resource 16**. Now encourage the pupils to imagine the tweets Captain Scott might have left for his followers on his Twitter account if this had been possible during the expedition in 1912. What might he have written each day in only 140 characters of text? Now support and challenge the pupils to empathise with Captain Scott and write tweets in role. In particular ask them to write tweets to describe:

- The landscape of Antarctica that Scott would have observed on his expedition (remembering that nobody in Britain had been to Antarctica before and would have very little idea what it was like).
- The weather conditions such as the cold and blizzards he encountered.
- How he would have felt when very hungry and exhausted.
- The wildlife such as penguins that he would have seen around him.
- His feelings at finally reaching the South Pole and discovering that someone from another country (Norway) had reached it first, just a few days previously.

NOTES

Assessment

This enquiry presents several opportunities, at different stages, to evaluate how the pupils are progressing in geography through the mastery of key geographical skills and outcomes. It is not necessarily intended that all of the following learning activities should be assessed. Rather that the list is used as a guide for selecting one or two assessment opportunities relevant to individual pupils, rather than on a whole group basis.

Ancillary Question	Learning Activity	Possible source of evidence of achievement
1	**Identify** and **describe** the basic atmospheric elements of the weather	Oral
1	**Observe**, **measure** and **record** the elements of daily weather by using a variety of simple instruments and devices	Completed data record sheets and Excel spreadsheet
1	**Present**, **describe** and offer **reasons** for some of the ways in which the weather has changed during the period of measurement	Graphs Oral and written
2	**Identify**, **describe** and begin to **explain** ways in which great artists depict elements of the weather and the techniques they use to convey noise, smell and emotional feelings	Painting of a weather scene in the style of a selected artist from Ancillary Question 2 and accompanying oral description
3	**Observe** how weather conditions change during the four seasons of the year and offer **reasons** for changes which occur	Simple PowerPoint using one image of each season accompanied by a relevant description
3	**Recognise** and **describe** how Vivaldi in his concerto *The Four Seasons* is able to create an evocative picture of changes in the weather from one season to another	Simple composition using a range of instruments to evoke the weather conditions of one season
4	**Observe** and offer **reasons** for the distribution of hot and cold places in the world	Map of hot and cold places of the world with accompanying simple annotated notes e.g. 'it gets colder towards the North Pole'
4	**Explain** in simple terms why the temperature of places decreases with distance from the Equator towards the north and south poles	Map of hot and cold places of the world with accompanying notes e.g. 'it get colder towards the North Pole because there is less energy from the Sun there'
5	**Compare and contrast** the environments of Antarctica and the Sahara Desert and begin to **explain** through **reasoning** the similarities and differences	Drawing of each environment with oral description and comparison
6	**Understand** why Captain Robert Scott and his team wanted to be the first human beings to reach the South Pole, the reasons for their failure and **empathise** with the emotions they would have felt as a result	140 character tweet Diary entry
Homework	Investigation of Amazon Basin which: **Locates** the area on a labelled world map which **identifies** continents and oceans; **Describes** typical daily weather; Suggests **reasons** for why it's so hot and wet and **explains** why it's so different from the Sahara Desert and Antarctica	Annotated poster Scrapbook Writing Oral presentation

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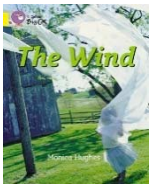
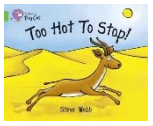
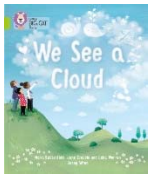
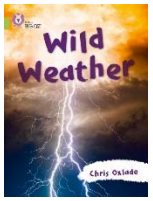
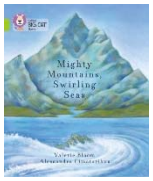
Homework possibilities

A relevant investigation for the pupils to carry out at home alongside the weather enquiry would be to study a region of tropical forest. This would complement well their investigation of both Antarctica and the Sahara Desert. The objective would be to describe the weather that someone would experience in the Amazon Basin of South America and to suggest reasons for why these particular weather conditions occur. The enquiry title could be: *Why is the weather in the Amazon Basin so different to that in Antarctica and the Sahara Desert?* The pupils could then be asked to present the following:

- A map of the world to show the location of the Amazon Basin in South America (to include names of all continents and oceans as well as the Equator and the north and south poles).
- A photograph and a description of the environment to be found there.
- A description of the typical weather conditions and how this compares with the Sahara Desert and Antarctica.
- Reasons why the weather in the Amazon Basin is so hot and wet.

Further reading

Collins *Big Cat* has books for every child in the classroom with a wide variety of genres, top authors, relevant topics and a range of engaging formats and illustrative styles. Listed below is a selection of from the Big Cat list to support the enquiry topics in Connected Geography for KS1. Find out more at Collins *Big Cat* – www.collins.co.uk

ISBN: 978-0-00-718577-1	*The Wind*	Monica Hughes	
ISBN: 978-0-00-751286-7	*Arctic Life*	Sean Callery	
ISBN: 978-0-00-733608-1	*Too Hot to Stop!*	Steve Webb	
ISBN: 978-0-00-759107-7	*The Gardening Year*	Becky Dickinson	
ISBN: 978-0-00-759125-1	*We See A Cloud*	June Crebbin, Moira Butterfield and Celia Warren	
ISBN: 978-0-00-759128-2	*Wild Weather*	Chris Oxlade	
ISBN: 978-0-00-759126-8	*Mighty Mountains, Swirling Seas*	Valerie Bloom	

Key Question: How does the weather affect our lives?

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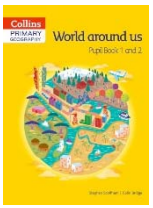
ISBN: 978-0-00-756358-6	*Primary Geography Pupil Book 1/2 World around us*	Stephen Scoffham and Colin Bridge	
ISBN: 978-0-00-756368-5	*Primary Geography Interactive Resources*