

Topic: Geography Locational Knowledge/ Key question	Year group	Term
How can we live more sustainably? How can we help to make Beech Hill more sustainable?	Year 5	Summer 6 Questions

Background knowledge/Content

Pupils are introduced to the concepts of sustainability and sustainable development through a number of examples that will be familiar to them in their everyday lives, such as recycling and 'bags for life' at supermarkets. From these familiar examples, the pupils progress gradually to reflect upon the concept of a *resource* and how these can be renewable and infinite or non-renewable and finite. From this foundation the pupils are encouraged to consider their own lives and what they currently do as individuals and at home as a family to be more sustainable.

The school community is the next focus of the investigation. The pupils are given the opportunity to survey the school's level of sustainability against a number of categories and to identify priorities for development in an Action Plan. The scale and context of the enquiry then moves to a national level with the pupils considering why the UK Government is looking to massively increase the contribution of renewable energy, such as solar and wind, to the generation of electricity.

The final two ancillary questions enable the pupils to understand the concept of sustainable development. The first focuses on the work of a UK conservation charity. The second turns its attention to the application of appropriate technology to improve the quality of people's lives in one of the poorest countries in the world.

Purpose of the enquiry

The concepts of sustainability and sustainable development lie at the heart of a geographical world view that sees the subject as the study of the interrelationship of people with the environments in which they live and upon which they depend. Many of those beginning school this year will live to see the next century. The greatest global challenge during their lifetimes will be how to marry economic and personal development with the principles of sustainability. That is, ensuring that everyone can enjoy a comfortable and fulfilling life without undermining the integrity of the lives of others or the environment that sustains them. Because of this it is essential that children and young people have an opportunity to explore the concept of sustainability from a young age.

The main objective of this enquiry, therefore, is for the pupils to understand through the use of a number of examples what sustainability entails and how they might approach applying those principles to their own lives. It is important for young geographers to grasp that sustainability is not just confined to how we interact with the environment. It also has equal relevance to many aspects of their life, especially in the context of personal and social wellbeing.

This groundwork is also important from the perspective of establishing continuity and progression through the curriculum - in Upper Key Stage 2 the concept of sustainability will be central to the pupil's investigation of the causes and implications of climate change.

What should I already know?

Year 4

Geographical enquiry

- Ask and respond to questions and offer their own ideas.
- Extend to satellite images, aerial photographs

Using Maps

- Locate places on large scale maps, (e.g. Find UK or India on globe)

Scale/Distance

Begin to match boundaries (E.g. find same boundary of a county on different scale maps.)

Map Knowledge

To identify significant places and environments

Style of Map

- Use large and medium scale OS maps.
- Use junior atlases.
- Use map sites on internet.
- Identify features on aerial/oblique photographs.

National Curriculum Objectives / Key Skills	The Journey
<p data-bbox="92 250 363 286">Learning objectives</p> <p data-bbox="92 309 753 434">During the enquiry pupils will have opportunities through the application and analysis of a wide range of geographical skills and resources to:</p> <ul data-bbox="92 456 785 1397" style="list-style-type: none"> <li data-bbox="92 456 785 537">● Describe and explain using examples what living sustainably means; <li data-bbox="92 560 785 685">● Identify, describe and explain the differences between renewable and non-renewable resources; <li data-bbox="92 707 785 922">● Undertake an environmental review of different categories of sustainability at their school and draw up an Action Plan to identify and explain priorities to help the school become more sustainable; <li data-bbox="92 945 785 1025">● Understand in basic terms how solar panels and wind turbines generate electricity; <li data-bbox="92 1048 785 1173">● Identify, describe and offer reasons for how sources of energy used to make electricity in the United Kingdom are changing; <li data-bbox="92 1196 785 1276">● Explain how electricity is generated in hydroelectric power stations; <li data-bbox="92 1299 785 1397">● Understand why creating new habitats for birds are good examples of sustainable development; <p data-bbox="92 1420 769 1576">Describe, observe, explain and make a judgement as to why introducing solar cookers in some of the world's poorest countries makes the lives of people more sustainable;</p> <ul data-bbox="92 1599 785 1724" style="list-style-type: none"> <li data-bbox="92 1599 785 1724">● Recognise and explain ways in which their lives at home could be more environmentally sustainable. 	<p data-bbox="810 250 1423 331">Question 1: What does being sustainable actually mean?</p> <p data-bbox="810 376 1423 456">Question 2: How can we help to make our school more sustainable?</p> <p data-bbox="810 501 1503 582">Question 3: Why are we seeing more wind and solar farms in the countryside?</p> <p data-bbox="810 627 1471 707">Question 4: How is sustainable development helping the lapwing out of the red?</p> <p data-bbox="810 752 1439 878">Question 5: How are solar cookers helping Sunita and her family to live more sustainably?</p>

Big question and key skills

How can we live more sustainably?

How can we help to make Beech Hill more sustainable?

Learning objectives

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

Geographical enquiry

- Begin to suggest questions for investigating
- Begin to use primary and secondary sources of evidence in their investigations.
- Collect and record evidence unaided
- Analyse evidence and draw conclusions e.g. compare historical maps of varying scales e.g. temperature of various locations - influence on people/everyday life

Drawing maps

Begin to draw a variety of thematic maps based on their own data.

Representation

- Draw a sketch map using symbols and a key;
- Use/recognise OS map symbols.

Scale/Distance

- Measure straight-line distance on a plan.

Style of Map

- Use index and contents page within atlases
- Use a range of thematic maps to identify features of a location.

Use medium scale land ranger OS maps.

Outcomes

An overview of what children will know / can do

Working towards: Children to explain why what is shown can be considered an example of 'being sustainable', with support. Pupils to researching another renewable source of energy - hydroelectric power (HEP), supported. Children to discuss how is sustainable development helping the lapwing out of the red.

Expected: Children to explain why what is shown can be considered an example of 'being sustainable'. Pupils practically can evaluate the present level of sustainability of Beech Hill. Children to draw up an Action Plan to increase sustainability through addressing those areas of greatest priority, supported. Children to discuss why are we seeing more wind and solar farms in the countryside. Pupils to researching another renewable source of energy - hydroelectric power (HEP). Children to show how is sustainable development helping the lapwing out of the red. Children can show how solar cookers are helping families to live more sustainable.

Exceeding: Pupils can distinguish between the use of resources that are finite and non-renewable, which will ultimately run out altogether, and those that are renewable and infinite. Children to draw up an Action Plan to increase sustainability through addressing those areas of greatest priority. Children can represent findings of another renewable source of energy, describing and explaining how non-polluting electricity is made from this technology. Children can design their interpretation panel to help the lapwing.

Key Vocabulary	Timeline / Diagrams
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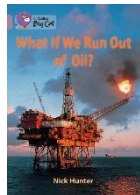
Key vocabulary / spellings.

- Sustainable
- Unsustainable
- Reusable
- Solar
- Turbine
- Rechargeable
- Conservation
- Recycle
- Resource
- Electricity
- Power station
- Finite
- Infinite
- Economic activity
- Waste
- Biodiversity



Text linked to topic

What if we run out of oil?- Nick Hunter



Fragile Earth- Claire Llewellyn



Key people / places

Lapwing
 North East
 United Kingdom
 Beech Hill
 Nepal

Assessment questions / outcomes

What does being sustainable actually mean?

Can you identify, describe and explain the differences between renewable and non-renewable resources?

How can we help to make our school more sustainable?

Why are we seeing more wind and solar farms in the countryside?

Explain how electricity is generated in hydroelectric power stations.

How is sustainable development helping the lapwing out of the red?

How are solar cookers helping Sunita and her family to live more sustainably?