Geography Component Knowledge

Year 6

Where does our energy come from?

National Curriculum

Locational Knowledge

- 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.
- Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time.
- Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)

Place Knowledge

- Understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America.

Human and Physical

- 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.

Geographical Skills and Fieldwork

- Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.
- Use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world.
- Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.

Key learning and Component knowledge

Key Learning:
L1: To know why energy sources are important.
Component Knowledge:

- Describe what we use energy for.
- Give examples of different sources of energy.
- Map significant energy trading routes.

Key Learning:
L2: To understand the benefits and drawbacks of different energy sources.
Component Knowledge:

- State the difference between renewable and non-renewable energy sources.
- Describe the benefits and drawbacks of an energy source.
- Discuss what to consider when deciding which energy source to use.

Key Learning:
L3: To understand how energy is generated in the United States.
Component Knowledge:

- Explain the significance of the Prime Meridian and time zones.
- Discuss how the United States generates its energy.
- Use a digital map to identify energy production in an area of Texas.

Key Learning:
L4: To know how energy sources are distributed in an area.
Component Knowledge:

- Locate cities in the UK.

- Use grid references on an OS map to locate human and physical features.
- Describe similarities and differences between two areas.

Key Learning:
L5: To explain reasons for choosing an energy source.
Component Knowledge:
- Discuss the benefits and drawbacks of an energy source.
- Justify the location of an energy source.
- Make considerations when planning new energy source facilities.

Key Learning:
L6: To collect and present data on where to position a solar panel on the school grounds.
Component Knowledge:
- Use interview questions to collect qualitative data.
- Draw a sketch map using contours where needed.
- Use data collected to justify a proposed location for a solar panel.

Why does the population change?

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Key learning and Component knowledge

Key Learning:
L1: To understand the change and distribution of the global population.
Component Knowledge:
- Define global population distribution.
- Describe how and why the global population has changed.
- Begin to explain why people may choose to live in a particular environment.

Key Learning:
L2: To define birth and death rates and describe why they change.
Component Knowledge:
- Define birth rate and death rate.
- Describe what influences birth and death rates.
- Identify the natural increase of a population on a graph.

Key Learning:
L3: To recognise the push and pull factors influencing migration.
Component Knowledge:
- Define migration.
- Describe push and pull factors.
- Explain why some migration is involuntary.

Key Learning:
L4: To begin to understand the impact climate change can have on the global population.
Component Knowledge:

- Give reasons why climate change is happening.
- Describe the impact of climate change on the population.
- Suggest ways to fight climate change at a local level.

Key Learning:
L5: To collect data showing how population impacts the amount of traffic and litter in an area.
Component Knowledge:

- Follow a pre-prepared route on an OS map.
- Use a range of data collection methods.
- Collect both quantitative and qualitative data.

Key Learning:
L6: To write a report on the fieldwork process, analyse findings and make suggestions to improve a situation.
Component Knowledge:

- Use digital technologies to map data collected.
- Analyse and compare two different data sets.
- Suggest improvements in response to conclusions drawn.

Can I carry out an independent fieldwork study?

National Curriculum

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Key learning and Component knowledge

Key Learning
L1: To develop an enquiry question.
Component Knowledge

- Explore changes and issues occurring in my local area.
- Determine my initial understanding of a local issue.
- Identify what I want to find out about a local issue.

Key Learning
L2: To determine the most effective data collection methods for fieldwork.
Component Knowledge

- Identify what data needs collecting to answer the enquiry question.
- Justify why I have chosen a data collection method.
- Design a data collection method.

Key Learning
L3: To plan a route for a fieldwork trip.
Component Knowledge

- Select the start and end of the route.
- Plot the points on the route where data will be collected.

- Identify any risks that may be encountered on the route.

Key Learning
L4: To collect the data to answer the enquiry question.
Component Knowledge
- Manage risks during fieldwork.
- Follow a route on an OS map.
- Record data using a variety of methods.

Key Learning
L5: To determine an answer to the enquiry question.
Component Knowledge
- Examine the data collected.
- Add data to a digital map.
- Conclude what the data shows.

Key Learning
L6: To present my findings.
Component Knowledge
- Select data to include in a presentation.
- Present data using my chosen method.
- Discuss the process to collect data.