

Subject: Geography –

Year 6 Where does energy come from?

NC/PoS:

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 UK., 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

Human and physical geography

- 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.

Place knowledge

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

Geographical skills and fieldwork

- use world maps, atlases and 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 OS maps) to build their knowledge of the UK 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.

Prior Learning (what pupils already know and can do)

Describe a biome and give an example

State the location and some key features of the Amazon rainforest

Name and describe the four layers of tropical rainforests

Understand that trees and plants adapt to living in the rainforest and give an example

Define the word indigenous and give an example of how indigenous peoples use the Amazon's resources

Name one way in which the Amazon is changing

Articulate why the Amazon rainforest is important

Give an example of how humans are having a negative impact on the Amazon and an action that can be taken to help

Use a variety of data collection methods with support

Summarise how the local woodland is used and suggest changes to improve the area

End Points (what pupils MUST know and remember)

Describe the significance of energy

Give examples of sources of energy and their trading routes

Define renewable and non-renewable energy

Discuss the benefits and drawbacks of different energy sources

Consider and justify the location of energy sources

Key Vocabulary

Biofuel, coal, crude oil, consumption, dam, emissions, energy source, hydropower, natural gas, non-renewable, nuclear power, renewable, replenish, solar power, wind power.

Lesson 1:

Why is energy important?

Is there any relationship between when energy sources were developed and population growth?

Why do you think this could be?

What is energy from the sun called?

When burnt, do coal and crude oil contribute to global warming?

Will all energy sources eventually run out?

Why do some countries import or export energy?

Vocabulary: energy source, coal, natural gas, crude oil, hydropower, wind power, solar power, nuclear power, biofuel, renewable, non-renewable

Lesson 2:

What is renewable energy?

What is the most important consideration when choosing the best energy source to use?

What did you notice when non-renewable and renewable energy sources became widely available?

Do you think there is anything we need to consider as the population continues to grow?

Vocabulary: emissions, landscape, dam, ocean tide, regenerate, fossil fuel

Lesson 3:

How does Brazil generate energy?

What do renewable and non-renewable mean?

Why does Brazil rely so much on hydroelectric power?

What are the advantages/disadvantages of dams in Brazil?

How does drought affect Brazil's energy supply?

Where are the windfarms located in Brazil and why?

How do wind and solar power help Brazil reduce pollution?

Why does Brazil use sugarcane to make fuel?

How does biofuel use affect farmers?

How does energy production affect the Amazon rainforest?

Vocabulary: renewable energy, non-renewable energy, fossil fuels, sustainable, hydroelectric power, dam, solar energy, biofuel

Lesson 4:

How does the UK generate energy?

What energy sources does the UK rely on most?

What renewable energy source does the UK use most?

What energy source has the UK stopped consuming as much of?

What do these features tell us about the energy sources used in the Port of Blyth?

What do you think the harbour might be used for?

What energy source might become more popular in Port of Blyth and why?

Vocabulary: six-figure grid references, offshore, onshore

Lesson 5:

What is the best way to generate energy?

Explain your reasons for choosing an energy source

Vocabulary: urban planner, considerations, annotate

Lesson 6

Where is the best place for a solar panel on the school grounds?

What should be considered when planning the location of the solar panel?

What would be the best way to find this out?

What questions might you want to ask people about the location of the solar panel?

Vocabulary: contour lines, justify, sea level

Future learning this content supports:

Why do oceans matter?