

## NATURAL RESOURCES: What are they, where are they found, why are they important

In this unit pupils will learn:

- natural resources, minerals and their uses
- Renewable and non-renewable resources

- Wood and its uses
- Food production and water availability

### 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

#### 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 geography

- ♣ describe and understand key aspects of:
    - ♣ physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle
    - ♣ 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
- Geography - key stages 1 and 2 4

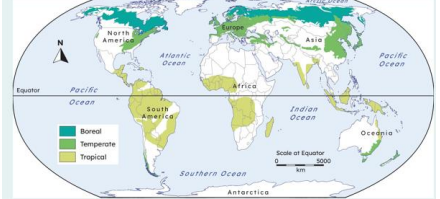
#### Geographical skills and fieldwork

- ♣ use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied

| Lesson                          | Brief Overview   | INK   | Vocabulary |   |        |   |          |  |  |
|---------------------------------|--|---|------------|---|--------|---|----------|--|--|
| How are natural resources used? | <p>I can name some natural resources and describe how they can be used.</p> <p>Natural resources are materials produced by the environment that humans can make use of, such as <b>energy</b>, <b>minerals</b>, metals, food and water.</p> <p>Some natural resources are <b>renewable</b> and some are not.</p> <p>Some resources like food and water, are essential to life.</p> | <table border="1"> <tr> <td data-bbox="1111 1026 1182 1050">Water</td> <td data-bbox="1189 1026 1599 1066">Without water we can't survive! We need it to drink, to wash, for cooking and in agriculture.</td> </tr> <tr> <td data-bbox="1111 1074 1167 1098">Plants</td> <td data-bbox="1189 1074 1599 1137">Plants provide us with food, so they are essential to humans. They also provide us with important medicines and some materials to make clothes - like cotton.</td> </tr> <tr> <td data-bbox="1111 1145 1178 1169">Sunlight</td> <td data-bbox="1189 1145 1599 1209">The sun is a source of energy, so it can power things. It also provides us with warmth and allows us to grow crops for food.</td> </tr> </table> | Water      | Without water we can't survive! We need it to drink, to wash, for cooking and in agriculture. | Plants | Plants provide us with food, so they are essential to humans. They also provide us with important medicines and some materials to make clothes - like cotton. | Sunlight | The sun is a source of energy, so it can power things. It also provides us with warmth and allows us to grow crops for food. | Resource distribution, energy, minerals, renewable |
| Water                           | Without water we can't survive! We need it to drink, to wash, for cooking and in agriculture.  |   |            |   |        |   |          |  |  |
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| Sunlight                        | The sun is a source of energy, so it can power things. It also provides us with warmth and allows us to grow crops for food.   |   |            |   |        |   |          |  |  |

|  |   |  |   |  |  |                      |  |  |                     |  |                      |                          |   |                  |                |  |                  |   |
|--|---|--|---|--|--|----------------------|--|--|---------------------|--|----------------------|--------------------------|---|------------------|----------------|--|------------------|---|
|  | <b>Resource distribution</b> is unequal around the world.   |  |   |  |  |                      |  |  |                     |  |                      |                          |   |                  |                |  |                  |   |
| What are renewable and non-renewable energy sources?   | I can identify renewable and non-renewable energy sources and understand the difference between them.   | <table border="1"> <tr> <td><b>renewable</b></td> <td>resources that will not be used up or run out.</td> <td></td> </tr> <tr> <td><b>non-renewable</b></td> <td>resources that are finite and can only be used once.</td> <td></td> </tr> <tr> <td><b>fossil fuels</b></td> <td>were formed millions of years ago (like fossils) from the remains of plants and other living things.</td> <td><b>non-renewable</b></td> </tr> <tr> <td><b>geothermal energy</b></td> <td>comes from heat contained within Earth's crust.</td> <td><b>renewable</b></td> </tr> <tr> <td><b>biomass</b></td> <td>organic (natural) material that can be used as fuel.</td> <td><b>renewable</b></td> </tr> </table> | <b>renewable</b>                                      | resources that will not be used up or run out. |  | <b>non-renewable</b> | resources that are finite and can only be used once. |  | <b>fossil fuels</b> | were formed millions of years ago (like fossils) from the remains of plants and other living things. | <b>non-renewable</b> | <b>geothermal energy</b> | comes from heat contained within Earth's crust. | <b>renewable</b> | <b>biomass</b> | organic (natural) material that can be used as fuel. | <b>renewable</b> | Finite, hydroelectric, geothermal, unsustainable, fossil fuels, biomass |
| <b>renewable</b>                                       | resources that will not be used up or run out.  |  |   |  |  |                      |  |  |                     |  |                      |                          |   |                  |                |  |                  |   |
| <b>non-renewable</b>                                   | resources that are finite and can only be used once.  |  |   |  |  |                      |  |  |                     |  |                      |                          |   |                  |                |  |                  |   |
| <b>fossil fuels</b>                                    | were formed millions of years ago (like fossils) from the remains of plants and other living things.  | <b>non-renewable</b>   |   |  |  |                      |  |  |                     |  |                      |                          |   |                  |                |  |                  |   |
| <b>geothermal energy</b>                               | comes from heat contained within Earth's crust.   | <b>renewable</b>   |   |  |  |                      |  |  |                     |  |                      |                          |   |                  |                |  |                  |   |
| <b>biomass</b>   | organic (natural) material that can be used as fuel.  | <b>renewable</b>   |   |  |  |                      |  |  |                     |  |                      |                          |   |                  |                |  |                  |   |
| What is global food production and what is its impact? | I can identify different sources of food, explain why food production can be harmful to the planet and understand what sustainable farming is.  | <p><b>Impact</b> of global food production: habitat loss and reduced biodiversity.</p> <p><b>Arable farming:</b> production of crops such as vegetables and fruits.</p> <p><b>Pastoral farming:</b> production of meat and dairy products.</p> <p><b>Sustainable farming:</b> aims to meet the needs of the current population in a way that is less harmful to the environment.</p>   | Rear, arable farm, pastoral farm, sustainable farming |  |  |                      |  |  |                     |  |                      |                          |   |                  |                |  |                  |   |
| What are economic minerals and their uses?             | <p>I can describe what economic minerals are and explain where they can be found and how we use them.</p> <p>Economic minerals are useful or valuable solid substances found naturally in Earth's crust.</p> <p>Economic minerals have a range of uses around the world and iron has been an important metal since ancient times.</p> |  <p>Metallic minerals have a range of uses.</p>  <p>jewellery      construction      transport vehicles<br/>cutlery      tools      coins</p>   | Extraction, mining, quarrying, metallic, minerals     |  |  |                      |  |  |                     |  |                      |                          |   |                  |                |  |                  |   |

Non-metallic minerals have a range of uses too.



- Play parks
- Musical instruments
- Fuel for heating
- Fuel for cooking
- Sports equipment
- Build barns
- Fencing
- Door and window frames
- Flooring
- Tables and chairs
- Chest of drawers
- Cupboards
- Beds
- Bookshelves
- Combat pollution
- Newspapers
- Decorations
- Toilet roll
- Packaging
- Books

What are the uses of wood and where is it grown?

I can explain the many different uses of wood and describe locations where it is grown.  
 Wood has multiple uses including for construction, recreation, paper and **biofuel**.  
 In some areas of the world wood is used to power heating and cooking.  
 Woods are also important for helping combat pollution and absorbing carbon.  
 Canada has the right climate for **boreal** forests to thrive and produce a lot of **timber** for **export**.

| Natural factors   | Human factors  |
|---|--|
| <ul style="list-style-type: none"> <li>- Latitude</li> <li>- Climate</li> <li>- Storms</li> <li>- Flooding</li> <li>- Droughts</li> </ul> | <ul style="list-style-type: none"> <li>- Agriculture and industrial use</li> <li>- Population growth</li> <li>- Poor water infrastructure e.g. leaking pipes</li> <li>- Water pollution</li> </ul> |

Biofuel, timber, exporter, boreal

What are the threats to water availability and distribution?

I can explain why water is a precious resource and identify some of the threats to its availability and distribution.

Fresh water, reservoir, water supply, sustainable