

## UNIT TITLE: The challenge of resource management

<p><b>Estimated Lesson Breakdown</b></p> <ol style="list-style-type: none"> <li>1) Distribution of resources worldwide</li> <li>2) Reasons why resources are important</li> <li>3) Food in the UK</li> <li>4) Water in the UK</li> <li>5) Energy in the UK</li> <li>6) Diagnostic/therapies</li> <li>7) The global pattern of water</li> <li>8) Water insecurity</li> <li>9) Methods of increasing water supply – large scale</li> <li>10) Methods of increasing water supply – small scale</li> <li>11) Increasing supply</li> <li>12) Assessment snapshot</li> </ol>	<p><b>Assessment</b></p> <p>Lesson 6 – Diagnostic and therapies (KB1-4) Lesson 12 – KB1 - 5</p> <p><b>Practice Exam Questions</b></p> <p>Lesson 11 – Explain how _____ helps to increase supplies of water (6 marks)</p> <p><b>Skills Coverage</b></p> <p>AM2: Recognise and describe distributions and patterns of both human and physical features. AM4: Analyse the inter-relationship between physical and human factors on maps and establish associations between observed patterns on thematic maps. G3: Complete a variety of maps – choropleth, isoline, dot maps, desire lines, proportional symbols and flow lines. G6: Interpret and extract information from different types of maps, graphs and charts.</p>
<p><b>Notes</b></p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p><b>Knowledge Stands/Links to Previous Learning Resources and their management</b></p> <ul style="list-style-type: none"> <li>• 8.5 The Middle East – the importance of resources on quality of life and the development of countries.</li> <li>• 9.5 Russia – reasons for varied distribution of resources, importance of resource supply on development</li> </ul> <p><b>Changing weather and climate</b></p> <ul style="list-style-type: none"> <li>• 7.5 The Arctic – Factors affecting the distribution of ecosystems (climate)</li> <li>• 8.4 Is the world becoming drier? Climatic factors leading to deserts</li> </ul> <p><b>Paper 1: Weather hazards</b></p> <ul style="list-style-type: none"> <li>• The atmospheric circulation model and the influence this has on pressure belts.</li> </ul>
<p><b>Specification Content</b></p>	<p><b>Teaching List – Key words in bold</b> <b>Tier 2 words in Bold/italics</b></p>
<p>The significance of food, water and energy to economic and social well-being.</p> <p>An overview of global inequalities in the supply and consumption of resources.</p>	<p><b>KB1</b></p> <ul style="list-style-type: none"> <li>• The importance of food, water and energy for quality of life and standard of living.</li> <li>• The distribution of water, food and energy worldwide</li> </ul>
<p>An overview of resources in relation to the UK.</p> <p>Food:</p> <ul style="list-style-type: none"> <li>• the growing demand for high-value food exports from low income countries and all-year</li> </ul>	<p><b>KB2</b></p> <ul style="list-style-type: none"> <li>• The changing food demand in the UK including growth of high-value nonseasonal produce, patterns of organic use, cash crops.</li> <li>• Impacts of changing food patterns including carbon footprints, food miles.</li> <li>• The growth of agribusiness and reasons for growth.</li> </ul>

<p>demand for seasonal food and organic produce</p> <ul style="list-style-type: none"> <li>• larger carbon footprints due to the increasing number of 'food miles' travelled, and moves towards local sourcing of food</li> <li>• the trend towards agribusiness.</li> </ul> <p>Water:</p> <ul style="list-style-type: none"> <li>• the changing demand for water</li> <li>• water quality and pollution management</li> <li>• matching supply and demand – areas of deficit and surplus</li> <li>• the need for transfer to maintain supplies.</li> </ul> <p>Energy:</p> <ul style="list-style-type: none"> <li>• the changing energy mix – reliance on fossil fuels, growing significance of renewables</li> <li>• reduced domestic supplies of coal, gas and oil</li> <li>• economic and environmental issues associated with exploitation of energy sources.</li> </ul>	<ul style="list-style-type: none"> <li>• The advantages and disadvantages of local, imported food and agribusiness.</li> </ul> <p><b>KB3</b></p> <ul style="list-style-type: none"> <li>• Definitions of water surplus and water deficit</li> <li>• Areas of water surplus and water deficit in the UK</li> <li>• Changing demand for water: industrial use and household demand.</li> <li>• Methods to improve water quality and reduce pollution: legislation, water treatment, education campaigns, green roofs and walls.</li> <li>• Reasons for water transfer schemes in the UK: Keilder water.</li> </ul> <p><b>KB4</b></p> <ul style="list-style-type: none"> <li>• The UK's changing energy mix over the last 50 years.</li> <li>• The trend of domestic supply of fossil fuels</li> <li>• Economic and environmental issues with nuclear energy, wind power and fossil fuels (including fracking).</li> </ul>
<p>Areas of surplus (security) and deficit (insecurity):</p> <ul style="list-style-type: none"> <li>• global patterns of water surplus and deficit</li> <li>• reasons for increasing water consumption: economic development, rising population</li> <li>• factors affecting water availability: climate, geology, pollution of supply, over-abstraction, limited infrastructure, poverty.</li> <li>• Impacts of water insecurity – waterborne disease and water pollution, food production, industrial output, potential for conflict where demand exceeds supply.</li> </ul>	<p><b>KB5</b></p> <ul style="list-style-type: none"> <li>• The global distribution of water surplus and deficit.</li> <li>• Definitions of water surplus, water deficit, water security, water insecurity, water availability.</li> <li>• Reasons for increasing water consumptions: economic development, population growth.</li> <li>• Factors affecting water availability (see list).</li> <li>• Impacts of water insecurity (see list) including conflict along the River Jordan.</li> </ul>
<p>Overview of strategies to increase water supply:</p> <ul style="list-style-type: none"> <li>• diverting supplies and increasing storage, dams and reservoirs, water transfers and desalination</li> <li>• an example of a large scale water transfer scheme to show how its development has both advantages and disadvantages.</li> </ul> <p>Moving towards a sustainable resource future:</p> <ul style="list-style-type: none"> <li>• water conservation, groundwater management, recycling, 'grey' water</li> <li>• an example of a local scheme in an LIC or NEE to increase sustainable supplies of water.</li> </ul>	<p><b>KB6</b></p> <ul style="list-style-type: none"> <li>• The different strategies to increase water supply (see list)</li> <li>• The SNWTP as an example of a large-scale water transfer scheme, including its advantages and disadvantages.</li> <li>• How Water Aid in Hitosa, Ethiopia increases supplies of water.</li> </ul>