

St Ambrose College Learning Program: Human geography – Resource security:

3.2 Human geography option

3.2.5 Resource security

Specification content/Topic Content	Objectives/skills	Stretch and Challenge	Homework	Assessment
<ul style="list-style-type: none"> • Concept of a resource. • Resource classifications to include stock and flow resources. • Stock resource evaluation: measured reserves, indicated reserves, inferred resources, possible resources. • Natural resource development over time: exploration, exploitation, development. • Concept of the resource frontier. • Concept of resource peak. • Sustainable resource development. • Environmental Impact Assessment (EIA) in relation to resource development projects. 	<p>Use of key subject specific and technical terminology.</p> <p>To identify connections and interrelationships between different aspects of geography.</p> <p>Develop an awareness that different people and groups have conflicting demands on resources and the environment and that compromises may have to be made between the different demands.</p>	<p>For a discussion of the concept of 'Peak Oil', compare these two sites:</p> <p>fool.com</p> <p>truthmove.org</p> <p>Read Sustainable use of natural resources and then go to FAQs for further development of ideas.</p>	<p>Read the relevant chapters in the text book on “Resource Security”.</p> <p>Watch movie “Blood Diamond”</p> <p>Complete questions as requested by teacher about resource classification</p>	<p>Definitions of:</p> <ul style="list-style-type: none"> • stock resources • flow resources • measured reserves • indicated reserves • inferred resources • possible resources <p>Exam questions on the topic</p> <p>Analysis of the Hubbert Curve</p> <p>Prepare an Environmental Impact Assessment for a local development.</p>

Specification content/Topic Content	Objectives/skills	Stretch and Challenge	Homework	Assessment
<ul style="list-style-type: none"> • Global patterns of water availability and demand. • Sources of water; components of demand, water stress. • Relationship of water supply (volume and quality) to key aspects of physical geography – climate, geology and drainage. • Strategies to increase water supply to include catchment, diversion, storage and water transfers and desalination. 	<p>Use of key subject specific and technical terminology.</p> <p>Online research.</p> <p>Construct and interpret distribution maps at a variety of scales.</p> <p>Comparison of maps to show how the distributions of</p>	<p>Water stress map</p> <p>Article on present day water stress</p> <p>Article on increased stress by 2040</p> <p>BBC News article on world water stress</p>	<p>Prepare a presentation about a water barrage/dam</p> <p>Exam question about water stress</p>	<p>Presentation of their assessment content and delivery.</p> <p>Keywords/definitions test</p> <p>Past paper questions as given.</p> <p>Class debate about a water conflict (likely Israel-Palestine)</p>

<ul style="list-style-type: none"> • Environmental impacts of a major water supply scheme incorporating a major dam and/or barrage and associated distribution networks. • Strategies to manage water consumption (including reducing demand). • Sustainability issues associated with water management: virtual water trade, conservation, recycling, 'greywater' and groundwater management. • Water conflicts at a variety of scales – local, national, international. <ul style="list-style-type: none"> • The geopolitics of water resource distribution, trade and management. • Case study of water resource issues in a specified regional setting to illustrate and analyse theme(s) set out above, their implications for the setting including the relationship between resource security and human welfare and attempts to manage the resource. 	<p>phenomena are interrelated.</p> <p>Develop an awareness of the interrelationships between different aspects of the specification - most notably between the water and carbon cycles and water security.</p> <p>Develop knowledge and understanding of the various sources of water available for human use.</p> <p>Develop extended writing skills. Collect, analyse and interpret a range of qualitative and quantitative data from a range of primary and secondary sources – this could include discursive/creative material when looking at the experiences of people in place.</p>	<p>Series of maps of world water supply and water stress</p> <p>Explanation of the water balance equation and graphs</p>		
Specification content/Topic Content	Objectives/skills	Stretch and Challenge	Homework	Assessment
<ul style="list-style-type: none"> • Global patterns of production, consumption and trade/movements of energy. • Sources of energy, both primary and secondary. • Relationship of energy supply (volume and quality) to key aspects of physical geography – climate, geology and drainage. • Energy supplies in a globalising world: competing national interests • Components of demand and energy mixes in contrasting settings. • The geopolitics of energy distribution, trade and management. 	<p>Interpret a variety of charts, data, graphs and maps (especially atlas maps).</p> <p>Develop extended writing skills to explore issues.</p> <p>Analyse and present geographical data employing a variety of graphical techniques and descriptive statistics. (See skills checklist.)</p>	<p>BP Statistical review of world energy - June 2016</p> <p>Global energy statistical yearbook 2017</p> <p>Glossary of terms</p> <p>National Academy of Sciences - what you need to know about energy</p> <p>International Energy</p>	<p>Geofile on energy</p> <p>Analysis of statistics from newspaper articles.</p> <p>Researching current trends in renewable energy mix</p>	<p>Analysis of data (past paper questions)</p> <p>Keywords test</p> <p>20 mark practice question work.</p>

<ul style="list-style-type: none"> • The role of transnational corporations in energy production, processing and distribution. • Environmental impacts of a major energy resource development such as an oil, coal or gas field and associated distribution networks. • Strategies to increase energy supply (oil and gas exploration, nuclear power and development of renewable sources). • Strategies to manage energy consumption (including reducing demand). • Sustainability issues associated with energy production, trade and consumption: <ul style="list-style-type: none"> • acid rain, • enhanced greenhouse effect, • nuclear waste • energy conservation. 		Agency statistics search Russia's oil and gas production Russia's key energy statistics Wikipedia - energy in Russia		
Specification content/Topic Content	Objectives/skills	Stretch and Challenge	Homework	Assessment
<ul style="list-style-type: none"> • Global patterns of production, consumption and trade/movements of ore minerals. • With reference to iron ore or a specified globally traded non-ferrous metal ore, eg copper, tin, manganese. Sources of the specified ore. Distribution of reserves/resources. End uses of the ore. • Components of demand for ore. • Role of specified ore in global commerce and industry. • Key aspects of physical geography associated with ore occurrence and working: geological conditions and location. • Environmental impacts of a major mineral resource extraction scheme and associated distribution networks. • Sustainability issues associated with ore extraction, trade and processing. • The geopolitics of ore mineral resource 	<p>Comparative graphing techniques.</p> <p>Extended writing to levels descriptors.</p> <p>Collect, analyse and interpret information from a range of secondary sources – including factual, numerical and spatial data.</p> <p>Critical questioning of information, and sources of information.</p> <p>Evaluating and presenting findings from research. Techniques to evaluate the geographical enquiry process</p>	<p>BBC Bitesize – simple science</p> <p>Clear science</p> <p>Geology explained, particularly Porphyry Deposits</p> <p>Copper statistics and information, select data for the relevant year</p> <p>Rio Tinto, study the first 6 or 7 slides</p> <p>Details of the market for copper, Figs 1, 2, 6, 7 and 8 are particularly useful</p>	<p>Past exam questions</p> <p>Compile a Case Study summary sheet for Copper Ore</p> <p>Prepare a fact test for peers about mining.</p>	<p>Peer and self assessment of past exam questions</p> <p>Evaluating and presenting findings from research.</p>

<p>distribution, trade and management.</p> <ul style="list-style-type: none">• Case study of a specified place to illustrate and analyse how aspects of its physical environment affects the availability and cost of energy and the way in which energy is used.• Alternative energy, water and mineral ore futures and their relationship with a range of technological, economic, environmental and political developments.		<p>Virtual tour of Bingham Canyon, Utah mine (but be selective)</p> <p>Or YouTube video</p>		
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