

<u>Lesson</u>	<u>Learning Objective</u>	<u>Lesson Content and Learning Outcomes</u> <u>(resources hyperlinked)</u>	<u>Assessment and Prior Learning needed</u>	<u>Cross-Curricular learning</u>	<u>Suggested resources and Notes</u>	<u>Remote Learning</u>
1	<p>9.1 Energy resources can be classified in different ways and their extraction has environmental consequences.</p> <p>LO – To recognise how energy resources can be classified as non-renewable, renewable and recyclable and give examples of each.</p>	<p>Explain Ws Overview of Consuming energy resources.</p> <p>Starter – what energy resources do I use? How might this be different for people in other countries? Feedback, discuss.</p> <p>Task 1 – Classifying energy resources. Check what pupils understand about non-renewable, renewable and recyclable energy resources and give definitions. Pupils then use images from PP, list created from starter and own knowledge to create a tree thinking map showing examples of the different kinds of energy resources.</p> <p>Task 2 – different types of energy resource. In pairs/small groups – use internet, iPads and various textbooks to find out some basic information about the different energy resources; locations, how the resources generate energy, found in UK? Could also collect images of each energy resource type.</p> <p>Feedback, review and discuss.</p> <p>Extension – how and why might the type of energy resource used change in the future?</p> <p>Plenary – revisit and recall the 3 main definitions.</p> <p>PP Energy resources in available.</p> <p>Homework – flipped learning task: how might producing energy cause environmental problems? 3-5 ideas with examples.</p>	<p>PL – resources, usage, energy sources, UK energy resources.</p> <p>Assess basic understanding of concepts.</p> <p>Assess ability to understand and apply definitions to examples and classify information.</p> <p>Assess ability to complete research to enhance knowledge and understanding.</p> <p>Assess ability to think more deeply about the topic.</p>	Energy resources – Science.	<p>Covers 9.1a (see Overview sheet).</p> <p>Energy resources and Knowledge organiser needs to be given out. I would include a blank world and UK map for this unit.</p> <p>Starter activity – use to create list of different energy resources, can then introduce the concept of the 'Energy mix' – how a country makes up its' overall energy needs.</p> <p>Task 1 – need to include terms such as stock and flow, finite, replenished etc. See PP for exact definitions.</p> <p>Pupils create own Odd One Out quiz for task 1 terminology.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 284.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 282.</p> <p>CGP revision guide pg. 106.</p> <p>Key vocabulary for EQ.</p> <p>Task 2 – very old Geography textbooks – Wider World, AQA A GCSE Geography, AQA GCSE Environmental Science will cover energy resource type and information about each one. The aim is to get a base level of knowledge for the energy resources, so if I said 'Nuclear power' – pupils would have some idea of uranium splitting atoms to create heat, radioactive waste etc.</p> <p>This will take two lessons.</p>	<p>CGP GCSE Geography revision guide pg. 106.</p> <p>Student Hub – Geography Hub – KS4 – 9 Consuming energy resources – 1 Classification of energy resources.</p>

<p>2</p>	<p>9.1 Energy resources can be classified in different ways and their extraction has environmental consequences.</p> <p>LO – To outline how the extraction of energy resources impacts upon the environment.</p> <p>LO – To understand how the use of renewable energy can have impacts on the landscape.</p>	<p>Starter – flipped learning homework, feedback to partner your ideas about how producing energy can cause environmental problems. Rank ideas in order of importance. Feedback to whole class through Q and A.</p> <p>Task 1 – working in pairs, divide information sheets and read/highlight to pick out the environmental problems caused by energy production. Peer teach each other to complete Ws Environmental impact. Feedback, review and discuss as whole class activity.</p> <p>Supplement the basic information in the table by using flipped learning homework, revision guide and own knowledge. Use a different colour. Extension – which type of energy source has the worst environmental impact and why?</p> <p>Task 2 – Reduction of environmental impacts. Working as a pair/small group – using rough paper and pens list ideas for reducing environmental impacts. Whole class Q and A/feedback. Completion of table.</p> <p>Plenary – re-visit starter and review the learning. Did anything surprise you or make you ask more questions?</p> <p>PP Environmental impacts is available.</p>	<p>PL – energy resources, uses, environmental impacts.</p> <p>Assess knowledge and understanding and ability to justify importance.</p> <p>Assess ability to read, select and understand information.</p> <p>Assess ability to explain information and knowledge gained to peers.</p> <p>Assess ability to extend thinking.</p> <p>Assess ability to work as a team, share ideas and problem solve.</p> <p>Assess recall of knowledge and understanding gained.</p>	<p>Energy resources – Science.</p>	<p>Covers 9.1b (see Overview sheet).</p> <p>Starter task – use mini-whiteboards and pens to select order or post-it notes.</p> <p>Reading images activity for Task 1 is available to promote thought and debate about the different energy resources.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 286-287.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 285.</p> <p>CGP revision guide pg. 107.</p> <p>AQA GCSE Environmental Science books may be of use here, has whole section on Energy Resources.</p>	<p>CGP GCSE Geography revision guide pg. 107.</p> <p>Student Hub – Geography Hub – KS4 – 9 Consuming energy resources – 2 Impacts of resources.</p>
<p>3</p>	<p>9.2 Access to energy resources is not evenly distributed which has implications for people.</p> <p>LO – To appreciate how access to technology and physical resources affect access the energy resources.</p>	<p>Starter – what factors might affect a country's access to energy resources? Use images from the PP to prompt discussion/ideas.</p> <p>Task 1 – where are the world's energy resources? Show series of maps/use atlas to describe patterns of global energy resources. Statements to describe.</p> <p>Extension – just because that resource is present does it necessarily mean that the</p>	<p>PL – energy resources, usage, development, location, physical and human factors.</p> <p>Assess understanding of concepts and terminology.</p> <p>Assess ability to use maps to describe</p>	<p>Data handling, statistics – Numeracy.</p> <p>Energy resources – Science.</p>	<p>Covers 9.2a (see Overview sheet).</p> <p>Starter activity – list ideas on the whiteboard – these can then be used later in lesson.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 288-289</p> <p>Edexcel GCSE Geography B (Pearson) pg. 282-283.</p> <p>CGP revision guide pg. 108.</p>	<p>CGP GCSE Geography revision guide pg. 108.</p> <p>Student Hub – Geography Hub – KS4 – 9 Consuming energy resources – 3 Distribution of</p>

		<p>country will have access or use that resource?</p> <p>Task 2 – factors that affect access to resources. Use the ideas from the starter activity. Give each pair a series of prompt cards that they need to explain using a concept map to write up and give examples.</p> <p>Extension – to what extent can the use of technology overcome the factors affecting access to energy resources?</p> <p>Plenary – British coal image and question. Pupils need to use knowledge and understanding to answer the question.</p> <p>PP Distribution of resources is available.</p> <p>Homework – UK's energy mix/supply – what's it made up of? How has this changed?</p>	<p>patterns of location and distribution.</p> <p>Extend and deepen thinking.</p> <p>Assess ability to explain, add examples and make connections.</p> <p>Extend and deepen thinking.</p> <p>Assess ability to demonstrate knowledge, understanding and application.</p> <p>Assess ability to complete independent learning task.</p>		<p>Atlas.</p> <p>Task 2 – concept map has a question in the middle; 'What factors affect the use of energy resources?' and then answers/statements around the edge that link together and make connections. The factors will link together, pupils can then explain the connections. Add examples in a different colour.</p> <p>Pupils may also link human factors into the accessibility of energy resources – world price of oil determines whether it is worth extracting UK's north sea oil. UK has over 200 years of coal resources left, but cheaper imports and high cost of technology mean not economically worthwhile extracting.</p> <p>This will take two lessons.</p>	energy resources.
4	<p>9.2 Access to energy resources is not evenly distributed which has implications for people.</p> <p>LO – To know the global pattern of energy use per capita.</p> <p>LO – To outline the reasons for variations in energy use per capita.</p>	<p>Starter – list the ways you have used energy over the last few days. How do you know how much energy use are using?</p> <p>Feedback and discuss.</p> <p>Task 1 – Energy use patterns. Use the Ws Energy consumption - describe and comment on what the graphs/charts are showing. Annotate the graphs and provide a written summary of what the trends in energy consumption show.</p> <p>Extension – how could the graphs change in the next 50 years?</p> <p>Peer and self-assess the written responses.</p> <p>Task 2 – Why is energy consumption uneven? Individually use the textbooks to formulate ideas to answer this question. Feedback, review and discuss. Use ideas to model developed, clear written answers.</p>	<p>PL – energy resources, usage, location, development, human geographical processes.</p> <p>Assess ability to relate content to real life experiences.</p> <p>Assess ability to understand and describe trends from graphs and to summarise information.</p> <p>Assess ability to understand and explain information to answer a central question.</p>	<p>Data handling and graphicacy skills – Numeracy.</p> <p>Energy resources – Science.</p>	<p>Covers 9.2b (see Overview sheet).</p> <p>Starter – use of SMART meters/changing energy suppliers.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 292-293.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 282-285.</p> <p>CGP revision guide pg. 108.</p> <p>Task 2 – list ideas in feedback session (use whiteboard to write ideas on), then model written responses to show developed, clear answers. 'Idea plus development', the 'so what' principles, 'Point – explain' – various strategies are available.</p>	<p>CGP GCSE Geography revision guide pg. 108.</p> <p>Student Hub – Geography Hub – KS4 – 9 Consuming energy resources – 4 Global patterns of energy consumption.</p>

		<p>Plenary – use images to explain the differences in global energy use.</p> <p>PP Energy consumption is available.</p>	<p>Assess ability to recall and explain information.</p>		<p>Homework – exam style question: 'Explain why energy use varies throughout the world.' (4 marks)</p> <p>Homework – Geographical skills sheets are available.</p>	
5	<p>9.3 The global demand for oil is increasing but supplies are unevenly available.</p> <p>LO – To know how oil reserves and production are unevenly distributed.</p> <p>LO – To outline the reasons why oil consumption is growing.</p>	<p>Starter – crude oil image. In pairs list the different uses of oil. Use images on PP to prompt discussion during feedback.</p> <p>Task 1 – use Ws Oil data table and map to draw a pie chart/bar graph of world's remaining oil reserves, then use atlas/blank world map to show location and amount of current production levels. Written description of what the graph/map shows.</p> <p>Extension - why is the amount of oil produced and reserves variable?</p> <p>Task 2 – use Pearson textbook pg. 286-287. Read text Answer questions 1, 2 and 3 from divided bar graph. Add 2 other reasons for the increase in oil consumption.</p> <p>Feedback, review and discuss – use as opportunity to develop written response skill. Peer or self-assess.</p> <p>Plenary – 'People will run out of demand before they run out of oil' – do you agree or disagree with this statement?</p> <p>PP Oil production and consumption is available.</p>	<p>PL – energy resources, usage, development, location, human and physical factors.</p> <p>Assess prior knowledge and understanding of topic.</p> <p>Assess ability to describe trends from data. Assess ability to graph/map and analyse data.</p> <p>Assess ability to extend thinking and ask questions.</p> <p>Assess ability to understand and interpret graphs and explain trends.</p> <p>Assess ability to recall, understand and apply knowledge.</p>	<p>Data handling skills – Numeracy.</p> <p>Energy resources – Science.</p>	<p>Covers 9.3a (see Overview sheet).</p> <p>Starter – in follow-up discussion mention processing and refining crude oil, fractional distillation.</p> <p>Task 1 – need blank world map, atlas. Geographical skills of location and proportional symbols/key. Include the terms 'Black gold' and 'Peak oil' (see Oxford pg. 294).</p> <p>Task 2 – reading text will reinforce knowledge and understanding from Task 1 and adds content for reasons for increase in consumption of oil. Written responses on reasons for increased consumption – idea plus development, 'so what' principle etc.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 294-295.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 286-287.</p> <p>CGP revision guide pg. 109.</p>	<p>CGP GCSE Geography revision guide pg. 109.</p> <p>Student Hub – Geography Hub – KS4 – 9 Consuming energy resources – 5 Oil reserves and production.</p>
6	<p>9.3 The global demand for oil is increasing but supplies are unevenly available.</p> <p>LO – To understand how oil supply and prices are affected by changing international</p>	<p>Starter – is it a good idea to buy oil from these countries? Use images from PP and discuss (yes/no).</p> <p>Task 1 – Why does the price of oil fluctuate? Petrol station image and overall price table – what is happening? Pupils need to link/explain ideas of supply and demand to prices.</p>	<p>PL - energy resources, usage, development, location, human and physical factors, geopolitical factors.</p> <p>Assess understanding and thinking about topic.</p>	<p>Data handling, % and price change – Numeracy.</p> <p>Energy resources – Science.</p> <p>Economic understanding of supply, demand</p>	<p>Covers 9.3b (see Overview sheet).</p> <p>Starter – images of Saudi Arabia/Russia – pupils may need prompting about these places. Remind them how much oil is produced here.</p> <p>Living graph activity is available for lesson, graph and statements.</p>	<p>CGP GCSE Geography revision guide pg. 109.</p> <p>Student Hub – Geography Hub – KS4 – 9 Consuming</p>

	relations and economic factors.	<p>Extension – what about countries who try to manipulate supply/demand and price?</p> <p>Introduce second time line graph of oil prices, in pairs pupils need to explain/link these events to oil prices. Write up as a table listing factors, then linking to oil price and reasons why. Ws Oil prices is available, this could be used to stick into exercise book if needed/or as stimulus.</p> <p>Extension – classify the factors in table. Assess the importance of the factors.</p> <p>Task 2 – Ws Fracking. Set understanding and application style questions based on this resource: explain how fracking works? What impacts has fracking had on global oil prices? What are the costs/benefits of fracking? Feedback, discuss and review.</p> <p>Extension/Plenary – what is the future of oil?</p> <p>PP Oil prices is available.</p> <p>Homework – Ws Geopolitics of oil – read article and answer questions.</p>	<p>Assess ability to interpret data and images and provide explanations.</p> <p>Assess ability to think more deeply.</p> <p>Assess ability to recognise factors, link and explain.</p> <p>Assess ability to read, understand and apply information, formulate a range of different opinions, including their own.</p>	and price – Business Studies.	<p>Task 1 – guidance may be needed on the more difficult concepts like OPEC, Gulf war, BP oil spill, economic crash/recession etc. Images on PP should help. Table is available if needed.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 296-297.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 288-289.</p> <p>CGP revision guide pg. 109.</p> <p>Inference squares are available for Task 2 Fracking.</p> <p>Exam style question: 'Explain how conflict between countries can affect global oil prices.' (4 marks)</p> <p>This will take two lessons.</p>	energy resources – 6 Oil supply and prices.
7	Flexibility.	Use to complete any outstanding content and/or practise exam/extended writing style questions (DIRT).				<p>CGP GCSE Geography revision guide pg. 115.</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Understanding resources – lesson 5.</p> <p>Student Hub – Geography Hub – KS4 – 9 Consuming energy</p>

						resources – 7 Flexibility.
8	<p>9.4 The world's continuing reliance of fossil fuels increases pressure to exploit new areas.</p> <p>LO - To understand the economic benefits and costs of developing new conventional oil and gas sources in ecologically sensitive areas.</p> <p>LO - To understand the environmental costs of developing new conventional oil and gas sources in ecologically sensitive areas.</p>	<p>Starter – supply/demand graph – explain what the connection between the two lines is, what could we do to keep prices stable?</p> <p>Feedback and discussion about graph – where could we find new conventional oil and gas supplies?</p> <p>Task 1 – produce a double page information sheet about oil drilling in the Arctic Circle. Key questions to answer include:</p> <ul style="list-style-type: none"> • Where/location/environment. • Who? • Why? How much oil/gas? • How? New technology/advances. <p>Use Ws Arctic images for double page display. Peer and self-assess completed pieces of work using purple-pen.</p> <p>Task 2 – Add labels to show the benefits and costs of developing new conventional oil/gas resources in the Arctic. Colour code the costs/benefits according to economic, environmental, political – use key.</p> <p>Extension – assess the impacts. Should global areas of wilderness be protected from exploitation?</p> <p>Plenary – Should we exploit the Arctic for new conventional oil and gas resources? Arguments for/against – own opinions.</p> <p>PP – Ecologically sensitive areas 1 is available.</p>	<p>PL – energy resources, human and physical factors, usage, development, environmental impacts.</p> <p>Assess ability to make connections between economic concepts and link to prior knowledge.</p> <p>Assess ability to research information and present answering key questions.</p> <p>Assess completed tasks using purple pen and simple WWW/EBI.</p> <p>Assess ability to classify information into different categories.</p> <p>Assess different viewpoints and formulate own judgments.</p>	<p>Energy resources – Science.</p> <p>Economic understanding of supply, demand and price – Business Studies.</p> <p>Moral/ethical issues – PHSE.</p>	<p>Covers 9.4a (see Overview sheet).</p> <p>Starter – link between supply/demand to oil/gas and prompt the idea that to keep prices stable we could increase supply of oil. Introduce idea that conventional oil supplies are located in ecologically sensitive and isolated areas.</p> <p>Conventional means traditional.</p> <p>Task 1 – could use internet, iPads as well as climate data for Arctic (laminated sheets R019) to supplement work. Revision guide will have other points in.</p> <p>Use globe to reinforce latitude – Arctic and Antarctic circles 66°N and S.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 298-299.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 290.</p> <p>CGP revision guide pg. 110.</p> <p><i>Opinion lines activity to ask questions about conventional oil and gas supplies, to help pupils formulate their own thoughts and opinions.</i></p> <p>Exam style question (optional): 'Explain one cost and one benefit of searching for energy resources in ecologically sensitive areas.' (4 marks)</p> <p>This will take two lessons.</p>	<p>CGP GCSE Geography revision guide pg. 110.</p> <p>Student Hub – Geography Hub – KS4 – 9 Consuming energy resources – 8 Exploiting ecologically sensitive areas.</p>

<p>9</p>	<p>9.4 The world's continuing reliance of fossil fuels increases pressure to exploit new areas.</p> <p>LO - To understand the economic benefits and costs of developing new unconventional oil and gas sources in ecologically sensitive areas.</p> <p>LO - To understand the environmental costs of developing new unconventional oil and gas sources in ecologically sensitive areas.</p>	<p>Starter – conventional and unconventional – what do the words mean? Give examples.</p> <p>Task 1 – Teacher exposition of extracting energy from Tar sands and Shale gas. Pupils read/follow Ws Extracting tar sands and shale gas, annotate with place examples and answer question: why are these new unconventional methods being used?</p> <p>Self-assess responses, use purple pen.</p> <p>Task 2 – Costs and benefits of unconventional extraction methods. Ws Tar sands, Canada Shale gas New Zealand, in pair's pupils read the information sheets and complete activities 1 and 2 from Oxford textbook. Supplement with Pearson textbook and revision guide.</p> <p>Extension – justify and evidence response to question 2d.</p> <p>Plenary – Go back to starter activity: conventional and unconventional oil and gas development. 3 point summary of each. Are there any alternatives?</p> <p>PP – Ecologically sensitive areas 2 is available.</p> <p>Homework – extended writing exam question: 'Assess the conflicts caused by the development of unconventional oil and gas.' (8 marks)</p>	<p>PL – energy resources, human and physical factors, usage, development, environmental impacts.</p> <p>Assess key understanding of terminology used.</p> <p>Assess ability to listen, understand information, exemplify and question further.</p> <p>Assess ability to analyse, drawing out costs and benefits and making an overall judgment.</p> <p>Assess ability to think deeper about the subject.</p> <p>Assess ability to summarise and think about the next steps.</p> <p>Assess ability to answers exam style extended writing questions.</p>	<p>Energy resources – Science.</p> <p>Economic understanding of supply, demand and price – Business Studies.</p> <p>Moral/ethical issues – PHSE.</p>	<p>Covers 9.4b (see Overview sheet).</p> <p>Task 1 – answers to question need to include new technology, high oil and gas prices make this activity economically viable, reserves of tar sand and shale gas are vast and largely untapped/utilised.</p> <p>QOTD activity is available for unconventional oil and gas extraction methods. Use Pearson and Oxford textbooks – pages listed below. Pupil sheet and recording sheet available.</p> <p>Task 2 – Ws can be highlighted, stuck into exercise book and annotated/answers completed around the Ws.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 300-301.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 290-291</p> <p>CGP revision guide pg. 110.</p> <p>Homework – Sentence starter structure strip available.</p>	<p>CGP GCSE Geography revision guide pg. 110.</p> <p>Student Hub – Geography Hub – KS4 – 9 Consuming energy resources – 9 Exploiting ecologically sensitive areas.</p>
<p>1</p>	<p>0</p> <p>9.5 Reducing reliance on fossil fuels presents major technical challenges.</p> <p>LO – To understand the role of energy efficiency and energy</p>	<p>Starter – what is meant by 'carbon footprint'? How is it calculated? Think, pair, share. Feedback and write down definition.</p> <p>Task 1 – Teacher exposition of concepts of energy efficiency and energy conservation. Pupils write down definitions, example and differences. Apply to two areas of everyday</p>	<p>PL – energy usage, efficiency, conservation, development.</p> <p>Assess understanding of concepts and</p>	<p>Data handling – Numeracy.</p> <p>Energy resources – Science.</p> <p>Building design, transport systems,</p>	<p>Covers 9.5a (see Overview sheet).</p> <p>Starter: www.carbonfootprint.com</p> <p>Definition Pearson textbook pg. 302.</p>	<p>CGP GCSE Geography revision guide pg. 111.</p> <p>Student Hub – Geography Hub – KS4 –</p>

	<p>conservation in reducing the use of finite energy resources.</p>	<p>life: Ws House and Transport. Pupils work in pairs/small groups to annotate images with ideas of how to make houses and transport systems more energy efficient and to conserve energy. Evidence with data.</p> <p>Use textbooks, revision guides, internet etc.</p> <p>Feedback, review and discuss. Pupils add/amend and alter using purple pen.</p> <p>Extension – how can energy efficiency and energy conservation be achieved nationally and globally? How can legislation help? Is it effective?</p> <p>Plenary – energy efficiency vrs energy conservation? Which is better? Why?</p> <p>PP Energy efficiency is available.</p> <p>Homework – provide a detailed response to the question: What are the advantages of reducing the use of fossil fuels?</p>	<p>terminology associated with the topic.</p> <p>Assess ability to understand concepts related to the topic and apply to real life situations, adding examples.</p> <p>Assess ability to review, alter and amend own work to take account of peers ideas.</p> <p>Assess ability to extend thinking.</p> <p>Assess ability to review the learning.</p>	<p>technology and energy efficiency – D and T.</p>	<p>Task 1 – Sustainable Urban Living – show Curitiba integrated public transport system.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 302-303.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 292-293.</p> <p>CGP revision guide pg. 110.</p> <p>AQA GCSE Environmental Science has sections on energy resources.</p> <p>Exam style question is available: 'Explain how energy efficiency and conservation measures can reduce energy consumption'. (4 marks)</p> <p>Homework task – direct pupils towards revision guide pg. 100.</p>	<p>9 Consuming energy resources – 10 Energy efficiency.</p>
1	<p>1 9.5 Reducing reliance on fossil fuels presents major technical challenges.</p> <p>LO – To know the costs and benefits of alternative energy resources to fossil fuels.</p>	<p>Starter – review answers to homework task. Pupils read out their responses/ideas. Whole class feedback and discussion. Assess in purple pen.</p> <p>Task 1 – Will the lights go out? Use images and exposition from PP to look at issues surrounding energy. Pupils write down definitions of energy security and energy diversification.</p> <p>So what's the solution? Energy efficiency, energy conservation and energy diversification (alternatives forms of energy).</p> <p>Task 2 – costs and benefits of alternative forms of energy. Using information sheets around the classroom, pupils need to</p>	<p>PL – energy, usage, development, physical and human processes/factors, environmental impacts, sustainability.</p> <p>Assess responses to extended writing task; content and literacy.</p> <p>Assess ability to make connections within the topic and think about futures and alternatives.</p>	<p>Energy resources – Science.</p> <p>Ethical and moral issues – PHSE.</p>	<p>Covers 9.5b (see Overview sheet).</p> <p>Task 1 - could include: the increase in population, demand for energy, industrialisation, emerging economies, increasing standards of living, reducing conventional supplies of energy, climate change, carbon footprint, pollution, sustainability</p> <p>Diamond 9 formation of answers for Task 1 – pupils use and justify their rank orders.</p> <p>De Bono's thinking hats activity could be used as group work to look at alternative energy from different perspectives.</p>	<p>CGP GCSE Geography revision guide pg. 111 and 112.</p> <p>Student Hub – Geography Hub – KS4 – 9 Consuming energy resources – 11 Alternatives to fossil fuels.</p>

		<p>complete Ws Costs and benefits of alternative energy.</p> <p>Feedback, review and discuss. Self-assess responses following discussion and check answers/understanding using revision guides.</p> <p>Extension – Which type of alternative energy has the greatest potential for: reducing carbon footprint, improving energy security, diversifying the energy mix?</p> <p>Plenary – recap and recall: energy security, energy diversification, alternative forms of energy.</p> <p>PP Alternative energy is available.</p>	<p>Assess ability to read, understand and interpret information.</p> <p>Assess using a reference point to check knowledge and understanding.</p> <p>Assess ability to think more deeply around the topic.</p> <p>Assess ability to re-cap and recall key points and terms from lesson.</p>		<p>Task 2 – could use textbooks. Use Revision guides to check answers/understanding. Extension: add more complex vocabulary like: 'stock resources' and 'flow resources' to your table.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 304-305.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 294-295.</p> <p>CGP revision guide pg. 112.</p> <p>Opinion lines activity could be used for extension task.</p> <p>Exam style question: 'Explain how renewable energies could alter the world's dependency on fossil fuels.' (4 marks)</p> <p>This will take two lessons.</p>	
1	2	<p>9.6 Attitudes to energy and environmental issues are changing.</p> <p>LO – To appreciate how different groups of people have contrasting views about energy futures.</p> <p>Starter – what's the difference? Two phrases, 'business as usual' vs. 'sustainable'. Pupils work in pairs to decide the difference and apply to energy topic.</p> <p>Task 1 – International Energy Agency predictions Ws 450 Scenario. Pupils read and then explain why carbon taxes are good in theory, but difficult to put into practise.</p> <p>Feedback and discuss.</p> <p>Task 2 – Different attitudes. In pairs pupils given Ws Attitudes of different groups of people. Following paired or small group discussion about each character – pupils complete the table.</p> <p>Whole class feedback, review and discussion.</p>	<p>PL – energy usage, development, sustainability, economic and political systems.</p> <p>Assess understanding and application of concepts.</p> <p>Assess ability to read, understand and apply information.</p> <p>Assess ability to see different perspectives</p>	<p>Energy resources – Science.</p> <p>Moral and ethical issues – PHSE.</p>	<p>Covers 9.6a (see Overview sheet).</p> <p>GCSE Geography Edexcel B (Oxford) pg. 306-307.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 296-297.</p> <p>CGP revision guide pg. 113.</p> <p>Task 2 – use Pearson textbook and revision guide to check ideas about different views people hold. Could use character cards/role playing cards – each pupils has to explain and justify their characters point of view.</p>	<p>CGP GCSE Geography revision guide pg. 113 and 114.</p> <p>Student Hub – Geography Hub – KS4 – 9 Consuming energy resources – 12 Attitudes to energy.</p>

		<p>Extension – explain why have attitudes to energy have changed?</p> <p>Plenary – re-visit starter, explain and reinforce the terms. Which scenario is more likely?</p> <p>PP Attitudes to energy is available.</p> <p>Homework – notes on why attitudes to energy futures are changing. Use page pg. 114 of revision guide.</p>	<p>and different points of view.</p> <p>Assess ability to think more deeply into the issues associated with the topic.</p>		<p>Concept map is available – Energy futures.</p> <p>Link plenary task to Boserup or Malthusian view of population and resources.</p>	
1	<p>3 9.6 Attitudes to energy and environmental issues are changing.</p> <p>LO – To understand how attitudes are changing towards unsustainable energy consumption and reducing carbon footprints.</p>	<p>Starter – what is sustainable development? Think, pair and share. Extension - exemplify.</p> <p>Task 1 – Calculate your own ecological footprint using WWF website. Share overall scores, use whiteboard to calculate range of class scores. Teacher exposition of carbon footprint and ecological footprint - pupils write down definitions.</p> <p>Task 2 – Ws What happens as a country develops? Describe and explain the graphics – in pairs. Link in other aspects of course, including homework from previous lesson. What can individuals, organisations and Governments do to reduce their ecological footprints? Create a Venn diagram to show ideas.</p> <p>Extension – overlapping areas of the Venn diagram, how the groups overlap and how the actions of one help determine the actions of another. For example, individual consumer choices can affect how organisations operate – campaign for reusable plastic water bottles.</p> <p>Plenary – link 3 different aspects of lesson and learning to the concept of sustainable development.</p>	<p>PL – energy usage, development, environmental impacts, climate change, sustainability, economic and political systems.</p> <p>Assess ability to understand terminology and concepts.</p> <p>Assess ability to apply knowledge and understanding to own experience.</p> <p>Assess ability to analyse data and apply previous knowledge and understanding.</p> <p>Assess ability to think more deeply.</p>	<p>Energy resources – Science.</p> <p>Data handling and calculation – Numeracy.</p> <p>Moral and ethical issues – PHSE.</p>	<p>Covers 9.6b (see Overview sheet).</p> <p>Task 1 - need website http://footprint.wwf.org.uk/ this is WWF webpage and will help you calculate your carbon footprint. Use Oxford text books for definitions. DVD How many people can Planet Earth support? Also has a section of Ecological footprint and global hectares. I have full set of notes for this DVD, there may be other useful sections.</p> <p>Task 2 – Pearson pg. 297 will have some ideas, as well as information gained from Task 1 website.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 308-309.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 296-297.</p> <p>CGP revision guide pg. 114.</p> <p>Exam style question: 'Explain one way that ecological footprints can be reduced'. (2 marks)</p> <p>This will take two lessons.</p>	<p>CGP GCSE Geography revision guide pg. 113 and 114.</p> <p>Student Hub – Geography Hub – KS4 – 9 Consuming energy resources – 13 What does the future hold.</p>

		PP What does the future hold is available.				
1	4	Flexibility. Use to complete any outstanding content and/or practise exam/extended writing style questions (DIRT).			Hexagon activity available to review, re-cap and make connections between different aspects of the energy resources topic.	CGP GCSE Geography revision guide pg. 115 Student Hub – Geography Hub – KS4 – 9 Consuming energy resources – 14 Flexibility.
1	5	Flexibility. Flexibility – complete content or use as opportunity to reinforce aspects of lessons covered.			Complete review and actions for Consuming energy resources (see Overview sheet). Learning grid is available to review, reinforce and support the learning. Complete Pupil review sheet .	CGP GCSE Geography revision guide pg. 115. Student Hub – Geography Hub – KS4 – 9 Consuming energy resources – 15 Flexibility and review.

Scheme of Learning

Curriculum area: Geography

Key Stage: KS4 GCSE Geography

Unit/Topic Title: Consuming energy resources (Component 3 People and environment issues)