

<u>Lesson</u>	<u>Learning Objective</u>	<u>Lesson Content and Learning Outcomes (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>
<b>1</b>	<p>7.1 The Earth is home to a number of very large ecosystems (biomes) and distribution of which is affected by climate and other factors.</p> <p>LO – To know the global distribution of the world’s major biomes.</p> <p>LO – To recognise the main characteristics and differences of the world’s major biomes.</p>	<p>Explain Ws <a href="#">Overview of People and the biosphere</a>.</p> <p>Starter – lithosphere, atmosphere, biosphere – what are these 3 things and how do they link together? Discuss.</p> <p>Task 1 – Ecosystems and biomes. Exposition of definitions of each term – use DVD Class clips 1 has some short clips of biomes, could use photo packs. Ws <a href="#">Biomes map</a> – describe distribution of a biome, use TRF from PP as example.</p> <p>Task 2 – main characteristics of <a href="#">biomes card sort</a> in pairs to complete. Will need atlases to name/locate places. Feedback, review and discuss – record information in the <a href="#">table</a>.</p> <p>Extension – explain the distribution/pattern of biomes location – what factors may help us explain the pattern?</p> <p>Homework – add more detail to recording table from Task 2, images, animal species, human activity (choose one or more categories).</p> <p>Plenary – explain what a biome is and give named examples/locations/features of your biome.</p> <p>PP <a href="#">Biome distribution</a> is available.</p>	<p>PL – Atmosphere, biosphere, lithosphere, ecosystems, location, latitude, and climate.</p> <p>Use post-its or mini whiteboards to assess thoughts and participation.</p> <p>Assess understanding of terms and concepts.</p> <p>Assess ability to describe patterns and distributions.</p> <p>Assess ability to understand, sort and classify information.</p> <p>Assess ability to explain and extend thinking.</p> <p>Assess re-call and summarising ability.</p>	Ecosystems, biomes, plant, animal species and adaptations – Biology.	<p>Covers 7.1a (see Overview sheet).</p> <p>Starter – I would write up a sentence for each sphere.</p> <p>Biosphere Vocabulary list and <a href="#">Knowledge Organiser</a> needed. World map needed for front of exercise book to mark on named places/case studies covered.</p> <p>Task 1 – ecosystem is the interaction and links between living and non-living components, biome is a large scale ecosystem. <b>Photo packs are available in red resources box – often an interesting activity to put in order from Equator to North Pole. This could be used as a Reading Photos activity or 8Q Strategy/5W’s.</b></p> <p>Task 1 – need to explain the difference between location and distribution. Pearson textbook pg. 246 has a useful a, b, c format to follow.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 244-245.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 246-247.</p> <p>CGP revision guide pg. 87-89.</p> <p><a href="#">Key vocabulary for EQ</a>.</p> <p><b>This will take two lessons.</b></p>	<p>CGP GCSE Geography revision guide pg. 87-89.</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Understanding Ecosystems – lesson 1 and 2.</p> <p>Student Hub – Geography Hub – KS4 – 7 People and the biosphere – 1 Global biomes distribution.</p>

<p><b>2</b></p>	<p>7.1 The Earth is home to a number of very large ecosystems (biomes) and distribution of which is affected by climate and other factors.</p> <p>LO – To be able to explain how biome distribution is influenced by climate.</p>	<p>Starter – name the biome quiz. Show images, facts, animals etc. from PP, pupils have to write-down which biome they think it is and why?</p> <p>Task 1 – use images from PP to explain how temperature, precipitation and sunshine hours could influence biome type and distribution. Extension - add more complex explanations from Oxford textbook (latitude, atmospheric circulation).</p> <p>Task 2 – apply explanation of climate influence on different biomes. In pairs – complete the table <a href="#">Climate, biomes and adaptations</a> – using information from Pearson textbooks, divide biomes between the pairs and swap/peer teach information.</p> <p>Feedback, review and discuss.</p> <p>Extension – what impact will climate change have on biomes? Make and justify 3 ideas/predictions.</p> <p>Plenary – go back to Task 1 images, tell a friend strategy.</p> <p>PP <a href="#">Climate affects biomes</a> is available.</p> <p>Homework – <a href="#">Skills work</a> on climate graphs and biomes to complete.</p>	<p>PL – location, latitude, climatic features, atmospheric circulation cells.</p> <p>Assess re-call and understanding of previous knowledge.</p> <p>Assess ability to explain and link information together.</p> <p>Assess ability to apply knowledge to real places and extend thinking to explain further.</p> <p>Assess ability to think more deeply and link to other areas of geography.</p>	<p>Air pressure, wind and atmosphere – Science.</p>	<p>Covers 7.1a (see Overview sheet).</p> <p>Task 1 – Oxford textbook has some quite simple explanations. Remember we will have covered atmospheric circulation in Hazardous earth, this should help re-cap.</p> <p>Task 2 – could complete 1 biome as whole class activity. Alternative pair/group work use One Stray Kagan strategy to get information from other pairs/teams – use cards to divide the biomes up.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 245.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 248-249.</p> <p>CGP revision guide pg. 87-89.</p>	<p>CGP GCSE Geography revision guide pg. 87-89.</p> <p>Student Hub – Geography Hub – KS4 – 7 People and the biosphere – 2 Explaining distribution climate.</p>
<p><b>3</b></p>	<p>7.1 The Earth is home to a number of very large ecosystems (biomes) and distribution of which is affected by climate and other factors.</p> <p>LO – To recognise the different characteristics and reasons why the</p>	<p>Starter – re-cap the big factors that influence biomes. In pairs, take it in turns to explain and give an example.</p> <p>Task 1 – can we explain variations in biomes? What are the local factors responsible? Use DVD Planet Earth seasonal forests – re-cap content covered so far, but also start thinking about why this biome varies/what are the local factors?</p> <p>Feedback, review and discuss ideas.</p> <p>Task 2 – explaining the local factors. Use textbook pages to read and create a mind map to explain the local factors – altitude, rock type, soils and drainage. Pupils then</p>	<p>PL – weather, climate, seasons, altitude, geology, soil and water cycles.</p> <p>Assess recall of knowledge, ability to explain and exemplify.</p> <p>Assess ability to make and explain connections between knowledge, understanding and real place examples.</p> <p>Assess ability to understand and be able to explain.</p>	<p>Plant, animal species and adaptations – Biology.</p>	<p>Covers 7.1b (see Overview sheet).</p> <p>GCSE Geography Edexcel B (Oxford) pg. 246-247.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 250-251.</p> <p>CGP revision guide pg. 89.</p> <p>Task 1 – I would use DVD Planet Earth seasonal forests as it shows examples from different parts of the world. My folder has complete set of notes/timings for this episode. Alternatively you could use images of different forests in the UK.</p> <p><b>This will take two lessons.</b></p>	<p>CGP GCSE Geography revision guide pg. 89.</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Understanding Ecosystems – lesson 3.</p> <p>Student Hub – Geography Hub – KS4 – 7 People and the biosphere – 3 Explaining</p>

	<p>world's major biomes are different.</p>	<p>explain to partner and use purple pen to self/peer assess.</p> <p>Plenary – exam style question: state two local factors affecting biomes (2 marks). Explain two ways in which local factors can affect biomes (4 marks). Explain how altitude affects biomes (4 marks).</p> <p>PP <a href="#">Local factors</a> is available.</p> <p>ILH – Use revision guides pg. 87-89 to go through each of the major biomes to complete <a href="#">A3 summary sheet</a>.</p>	<p>Peer or self-assess explanations.</p> <p>Assess ability to recall and explain gained knowledge.</p>		<p>There is a <a href="#">picture/graphics sheet</a> for pupils to use with Task 2 if needed.</p> <p><b>Concept mapping – Ws <a href="#">Desert biomes</a> two different images, pupils add arrows/annotations to compare/contrast/explain the similarities and differences between the two images.</b></p> <p>For plenary, select which question(s) you wish to use, depending on group.</p> <p>ILH will help reinforce knowledge and understanding of world's major biome and independent learning skills.</p>	<p>distribution local factors.</p>
<b>4</b>	<p>7.1 The Earth is home to a number of very large ecosystems (biomes) and distribution of which is affected by climate and other factors.</p> <p>LO – To be able to explain how the biotic and abiotic components of biomes interact.</p>	<p>Starter – odd one out activity. Pupils work through in pairs/small groups.</p> <p>Task 1 – what are the biotic and abiotic components of an ecosystem/biome? Show Class Clips movie clip of a biome and get pupils to list all the biotic (living) and abiotic (non-living) things they observe and think might be present in biome. Feedback and list ideas on the board.</p> <p>Extend the learning – make simple connections between the biotic and abiotic factors.</p> <p>Task 2 – making and explaining connections between biotic and abiotic. Use Ws <a href="#">Components</a> in pairs/small groups pupils need to explain the connections. Feedback, review and discuss. Colour copy of diagram goes in centre of double page and explanation needed for each number. Highlight key terms in each explanation.</p> <p>Give out <a href="#">information sheet on cycles</a> to read and stick in exercise book.</p> <p>Plenary – food chain, food web, producers, consumers, decomposers, herbivores,</p>	<p>PL – Biotic, abiotic, food webs, food chains and components of.</p> <p>Assess ability to see connections and justify their answers.</p> <p>Assess observational skills and ability to make simple connections.</p> <p>Assess ability to work in small groups to use information to explain links between information.</p>	<p>Food chains/webs and interactions. Plant, animal species, connections and adaptations – Biology.</p>	<p>Covers 7.1b (see Overview sheet).</p> <p><b>Starter – Odd one out activity. There are more likely and less likely answers, none are really 'correct', the task is designed to promote connections and explanations.</b></p> <p>Task 1 – Class Clips I use savannah, though there are others and Planet Earth will have loads of clips to use. Dead plants and animals comes under biotic as once living.</p> <p>Task 2 – answers can be found on pg. 247 Oxford textbook, give clues if needed or have key clues (food chain, weathering, herbivores etc.) on mini-whiteboard.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 247.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 252-253.</p>	<p>CGP GCSE Geography revision guide pg. 89.</p> <p>Student Hub – Geography Hub – KS4 – 7 People and the biosphere – 4 Interactions and cycles.</p>

		<p>carnivores – what are they? Take it in turns to explain.</p> <p>PP <a href="#">Abiotic and biotic</a> is available.</p> <p>Homework – continue with ILH.</p>	<p>Assess ability to recap and recall knowledge and understanding.</p>		<p>CGP revision guide pg. 89.</p> <p>Nature of environments pg. 16 (alternative – there is a really good energy flow diagram of deciduous temperate forest).</p>	
<b>5</b>	<p>7.2 The biosphere is a vital life-support system for people as it provides both goods and services.</p> <p>LO – To understand how the biosphere provides resources for indigenous and local people, and is being increasingly exploited.</p> <p>LO – To know how the biosphere plays a wider important role for our planet.</p>	<p>Starter – re-cap definition of what is meant by ‘biosphere’ and what it includes. Think, pair, share and feedback/discuss. Pupils write down definition and terms indigenous and local people.</p> <p>Task 1 – in pairs, create a spider web diagram that covers how the biosphere is vital for indigenous and local people. Pupils peer assess by exchanging ideas with group/table behind or in front of them.</p> <p>Extension – highlight web diagram where the resources are commercially exploited.</p> <p>Task 2 – Biosphere is of global importance and acts as a life support system. Use the <a href="#">information sheets</a> to find out how the biosphere is a life support system. Needs to include: atmosphere, soil and water.</p> <p>Write-up in exercise book.</p> <p>Plenary – what does the biosphere do?</p> <p>PP <a href="#">Life support system</a> is available.</p> <p>Homework – complete write-up of biospheres global support functions (atmosphere, soil and water) – use revision guide pg. 91.</p>	<p>PL – Human activities, indigenous/local people – differences, understanding of systems concepts and linking, interdependence.</p> <p>Assess ability to recall information and apply at different levels.</p> <p>Assess ability to think and apply knowledge to a framework.</p> <p>Assess ability to extend thinking more deeply into the topic.</p> <p>Assess ability to work as a pair/small team to interrogate, gather and explain information.</p> <p>Assess independent learning ability.</p>	<p>Food webs and components of – Biology.</p>	<p>Covers 7.2a and 7.2b (see Overview sheet).</p> <p>Starter discussion needs to include reference to indigenous and local people.</p> <p>Task 1 – use framework from Pearson textbook pg. 254 figure 12, draw a blank web on whiteboard (with headings) – pupils then complete the specific detail.</p> <p><b>Task 2 – have information sheets up around the classroom walls, could complete a Maps from memory activity. Will need A3 paper to record rough ideas.</b></p> <p>GCSE Geography Edexcel B (Oxford) pg. 250-253.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 254-255.</p> <p>CGP revision guide pg. 90-91.</p>	<p>CGP GCSE Geography revision guide pg. 90-91</p> <p>Student Hub – Geography Hub – KS4 – 7 People and the biosphere – 5 Life support systems.</p>

<p><b>6</b></p>	<p>7.2 The biosphere is a vital life-support system for people as it provides both goods and services.</p> <p>LO – To know the reasons why the global demands for food, energy and water resources are increasing.</p>	<p>Starter – image of a table set for breakfast – what resources have been used? In pairs think and discuss.</p> <p>Task 1- Ws <a href="#">Resource pressure</a> – describe what the table and graphics are showing.</p> <p>Feedback and discuss.</p> <p>Task 2 – explain the reasons behind the increase use of resources: population growth, increased wealth (affluence), industrialisation, and urbanisation – use the images from the PP as stimulus. Annotate Ws from task 1 with explanation.</p> <p>Extension – how do the reasons for increased use of resources link together? What impact will increased resource use have on the biosphere and biomes? Is there a spatial pattern to increased resource use?</p> <p>Plenary – can the rates of resource consumption continue? What does the future hold?</p> <p>PP <a href="#">Resource use</a> is available.</p>	<p>PL – resources renewable and non-renewable, products, development, population increase, industrialisation and urbanisation.</p> <p>Assess ability to think and question.</p> <p>Assess ability to read and analyse information.</p> <p>Assess ability to explain reasons behind data.</p> <p>Assess ability to think more deeply around the topic and to make connections.</p>	<p>Product manufacture and raw materials – D and T.</p> <p>Moral and ethical issues of resource use – PHSE.</p>	<p>Covers 7.2a and 7.2c (see Overview sheet).</p> <p>GCSE Geography Edexcel B (Oxford) pg. 254-255.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 256-257.</p> <p>CGP revision guide pg. 90, 92-93.</p> <p><a href="#">Silent sentences activity available for task 2.</a></p> <p>Homework – extended writing exam style question is available: 'Assess the reasons for the increased demand for global resources'. 8 marks</p>	<p>CGP GCSE Geography revision guide pg. 90, 92-93.</p> <p>Student Hub – Geography Hub – KS4 – 7 People and the biosphere – 6 Increasing use of resources.</p>
<p><b>7</b></p>	<p>7.2 The biosphere is a vital life-support system for people as it provides both goods and services.</p> <p>LO – To understand how theories can help explain the relationship between population and resources.</p>	<p>Starter – 2030: Perfect storm? Population verses resources. In pairs, think and come up with argument for true/false.</p> <p>Task 1 – introduce two different theories about the relationship between population and resource – Malthus and Boserup. Working in pairs, each pupil has to find out about the theory and annotate findings on Ws <a href="#">Malthus</a> and <a href="#">Boserup</a>. Use textbooks or <a href="#">laminated information sheets</a> around the room. During feedback – pupils need to peer teach each other what they have found out.</p> <p>Task 2 – Ws -<a href="#">Population projections</a> – answer question 1a, b and c (Oxford textbook pg. 257) around the graph. Write your own conclusion on the two different theories of population-resources.</p>	<p>PL – resources renewable and non-renewable, population increase, changes in agriculture and technology, development.</p> <p>Asses ability to think deeply, make connections and see different points of view.</p> <p>Assess ability to read, understand and explain information.</p> <p>Assess ability to think critically about accepted theories, come to</p>	<p>Population growth and Malthus – History?</p> <p>Technological change – D and T, Science and IT.</p> <p>Projections graphs – Numeracy.</p>	<p>Covers 7.2c (see Overview sheet).</p> <p>GCSE Geography Edexcel B (Oxford) pg. 256-257.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 258-259.</p> <p>CGP revision guide pg. 93.</p> <p>Task 1 – research notes need to relate to graph and should cover the basic principles of each theory – what does each person say about the relationship between population and resources? Evidence for and against.</p> <p>Task 2 – read Oxford textbook pg. 257 for conclusions. DVD - How many people can planet earth support? This may be of use, too long to show in its entirety, but there are some useful sections.</p>	<p>CGP GCSE Geography revision guide pg. 93.</p> <p>Student Hub – Geography Hub – KS4 – 7 People and the biosphere – 7 Population resource theories.</p>

		<p>Extension – relate and try to bring in Rostow’s model and growth and Frank’s Dependency (Core-Periphery model).</p> <p>Plenary – own views of 2030. Where will you be? What will the world look like?</p> <p>PP <a href="#">Population resource</a> theories is available.</p>	<p>conclusions and formulate their own viewpoints.</p>		<p>Opinion lines activity – each pupil has own card/has to stand on certain viewpoint – strongly agree, agree, neutral, disagree, strongly disagree. Pose a series of questions – Thomas Malthus was right; food is the overall limiting factor on global population growth. Advances in technology will always be able to produce more food.</p> <p>Pupils have to justify/explain the viewpoint with evidence.</p> <p>Extended writing opportunity – How can theories be used to explain the relationships between population and resources? Evaluate theories explaining the relationship between population and resources.</p> <p>This will take two lessons.</p>	
<b>8</b>	Flexibility.	Use to complete any outstanding content and/or practise exam/extended writing style questions (DIRT).				
<b>9</b>	Flexibility.	Flexibility – complete content or use as opportunity to reinforce aspects of lessons covered.			<p>Complete review and actions for <a href="#">People and the biosphere</a> (see Overview sheet).</p> <p>Complete <a href="#">Pupil review sheet</a>.</p> <p><a href="#">Learning grid</a> is available for re-cap and review.</p>	

## Scheme of Learning

Curriculum area: Geography

Key Stage: KS4 GCSE Geography

Unit/Topic Title: People and the biosphere (Component 3 People and environment issues)