Paper 3: Learn	Paper 3: Quiz	Paper 3: Practice
Use any of the links below to complete a learn task.	Ecosystems:	8 marks
	https://www.bbc.co.uk/bitesize/	1. Assess the reasons why some groups are
Unit 7: The Biosphere	guides/zwfqnbk/test	against the development of oil and gas (8)
https://www.bbc.co.uk/bitesize/guides/zwfqnbk/revision/1		(Figure 1)
Create a spider diagram on what is an Ecosystem.	Tropical Rainforests	2. Using evidence from both resources (Figure 2
	https://www.bbc.co.uk/bitesize/	and 3), assess the view that the local impacts of
https://www.bbc.co.uk/bitesize/guides/zwfqnbk/revision/4	guides/zwy7sg8/test	tar sands mining are more severe than the
Write down 10 facts about the UK ecosystem	_,	global impacts (8)
	The Taiga	3. Assess the environmental impacts of exploiting
https://studyrocket.co.uk/revision/gcse-geography-b-edexcel/people-and-	https://www.internetgeography.	Indonesia's energy resources (Figure 4)
the-biosphere/the-biosphere-and-the-global-system	net/gcse-geography-interactive-	4. Assess the reasons why people disagree over
Create a flashcard about 'The Biosphere and its key features'	revision/gcse-geography- ecosystems-revision/taiga-	who is to blame for deforestation. (Figure 5)
https://www.bbc.co.uk/bitesize/guides/zwfqnbk/revision/3	interdependence-quiz/	5. Assess the challenges Norway faces in
Create a set of flashcards about where different Ecosystems are located in the	interdependence-quiz/	developing new offshore oil sources (Figure 6)
world and why.	Energy	6. Assess the economic costs and benefits for
wond and why.	https://www.bbc.co.uk/bitesize/	local people of developing this oil (Figure 7)
https://studyrocket.co.uk/revision/gcse-geography-b-edexcel/forests-under-	guides/zq3bwxs/test	
threat/nutrient-cycling		Other Questions
Create a diagram of the Nutrient Cycle and briefly describe each store.	Weather, climate and Biomes	1 Define the town (Binding with // /1)
	https://www.bbc.co.uk/bitesize/	<ol> <li>Define the term 'Biodiversity' (1)</li> <li>Explain one way increased forest growth could</li> </ol>
https://studyrocket.co.uk/revision/gcse-geography-b-edexcel/people-and-	topics/zvrp3qt/articles/zqmmvj6	affect the atmosphere (2)
the-biosphere/population-and-resources	#zf33wsg	3. Explain <b>two</b> ways in which technology can
Create a table to show the different theories of Malthus and Boserup and		increase food supplies for the world's people
their views on population change and resources.	Resource Management	(4)
	https://www.bbc.co.uk/bitesize/	4. State <b>two</b> resources local people might obtain
Unit 8: Forest Under Threat	topics/zvrp3qt/articles/zqmmvj6	from the biosphere (2)
	#zf33wsg	5. State <b>two</b> characteristics of the temperate
https://www.bbc.co.uk/bitesize/guides/zwy7sg8/revision/1		forest biomes (2)
Create a diagram to show the structure of the Tropical Rainforest.		6. Explain <b>one</b> way the biosphere can maintain
https://www.bbc.co.uk/bitesize/guides/zwy7sg8/revision/2		soil health (2)
Create a spider diagram about animal and plant adaptions to the Tropical		7. Explain <b>two</b> global actions which help protect
Rainforest.		the rainforest (4)
		8. State <b>one</b> adaptation that helps many taiga
https://www.bbc.co.uk/bitesize/guides/zwy7sg8/revision/3		animals to survive (1)

Create a one-page knowledge organiser on the 'Benefits of a Tropical Rainforest'

## https://www.bbc.co.uk/bitesize/guides/zwy7sg8/revision/4

Create a table of direct and Indirect threats to the Tropical Rainforest and how these impact the Tropical Rainforest.

### https://www.bbc.co.uk/bitesize/guides/zwy7sg8/revision/5

Create a fact-file on the case study for 'Protecting the Tropical Rainforest' Give key points to the case study and advantages and disadvantages.

https://studyrocket.co.uk/revision/gcse-geography-b-edexcel/forests-under-threat/the-taiga

Create a spider diagram about the Taiga, Characteristics, Location and adaptions.

https://studyrocket.co.uk/revision/gcse-geography-b-edexcel/forests-under-threat/taiga-under-pressure

and

https://studyrocket.co.uk/revision/gcse-geography-b-edexcel/forests-under-threat/threats-to-the-taiga

Create a table of direct and Indirect threats to the Taiga and how these impact the Taiga

https://studyrocket.co.uk/revision/gcse-geography-b-edexcel/forests-under-threat/asustainable-future-for-the-taiga

Create a fact-file on the case study for 'Protecting the Taiga' Give key points to the case study and advantages and disadvantages.

### **Unit 9: Energy**

## https://www.bbc.co.uk/bitesize/guides/zq3bwxs/revision/1

Create a spider diagram of how energy is consumed globally (which countries consume the most energy) and reasons for consumption.

## https://www.bbc.co.uk/bitesize/guides/zq3bwxs/revision/1

Create your own version of the 'Pie chart' representing the UK's energy mix use. Label how each type of energy is used.

# https://www.bbc.co.uk/bitesize/guides/zq3bwxs/revision/2

Create a table to describe ways of increasing the UK's energy supply. Write the strategy in one column and the description of it in another column.

## https://www.bbc.co.uk/bitesize/guides/zq3bwxs/revision/2

Create a table of the advantages and disadvantages of using non-renewable and renewable energy sources.

### https://www.bbc.co.uk/bitesize/guides/zq3bwxs/revision/3

Create a fact-file on the case study for 'Wind power in the UK' Give key points to the case study and advantages and disadvantages.

### https://www.bbc.co.uk/bitesize/guides/zq3bwxs/revision/4

Create a fact-file on the case study for 'Coal Mining in Northumberland' Give key points to the case study and advantages and disadvantages.

### https://www.bbc.co.uk/bitesize/guides/zq3bwxs/revision/5

Create a one side revision sheet on three key areas, Energy Conservation, Carbon Footprint, Better Technology

## https://www.bbc.co.uk/bitesize/guides/zq3bwxs/revision/6

Create a fact-file on the case study for 'Centrosolar panels in Kenya' Give key points to the case study and advantages and disadvantages.

# **Resources Needed for Practice:**

Peruvian government	'Oil and gas are vital resources and will bring benefits to all our people.'
Indian indigenous communities	'We only have the rights to surface land, not to what's underneath. All we have got is contamination of our water supplies.'
Environmental pressure groups, e.g. WWF	'They have even stopped making Environmental Impact Surveys compulsory.  The scale and pace of development is increasing and it has an appalling effect on this pristine, high value environment.'
TNCs such as Hunt Oil (USA)	'We are ethical companies with a green code of conduct. Oil spills are exceedingly rare as we take all necessary precautions.'
New settlers in the Amazon	'We moved from the Andes mountains to get a better life. We need to clear the forest for crops such as sugar and biofuels.'
NGOs such as FENAMAD (a local group)	'We want local Indian communities to establish sustainable management of logging, develop ecotourism and provide sustainable energy supplies from mini HEP and solar power.'

Figure 1

Conflicting views about development in the rainforest



#### **Eco-issues**

- . 1.5 million tonnes of toxic waste leaks into the river per day.
- Fish species becoming deformed.
- . Up to 5,000 migrating ducks and geese dying around mine.
- Caribou population extinct by 2030 as they lose their habitat.
- · Unexpectedly high rates of rare cancers

#### Impacts on taiga

- · Second fastest rate of deforestation in the world.
- . 0.2% of taiga has been completely destroyed since 2010.
- Wide spread 'clear cutting' of taiga
- · Acid rain, from processing plants damaging trees.





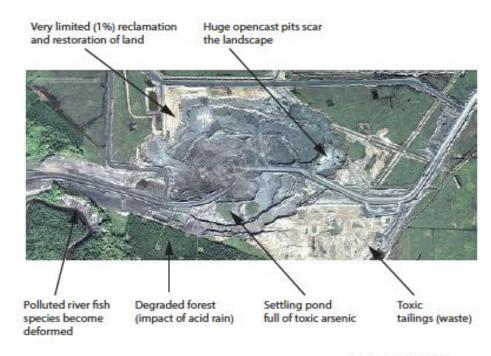
- Largest contributor to Canadian greenhouse gas emissions.
- Uses valuable Albertan gas to heat oil during production.
- · Scar sands created due to huge opencast pits and land not being restored.
- Heavy use of water from Athabasca river. 6 barrels of water for each barrel of oil.
- . Canada missing Kyoto (1997) targets, new government aims to improve (Paris 2015).
- 8th worst polluter in the world.



Figure 2

Environmental Impacts of the

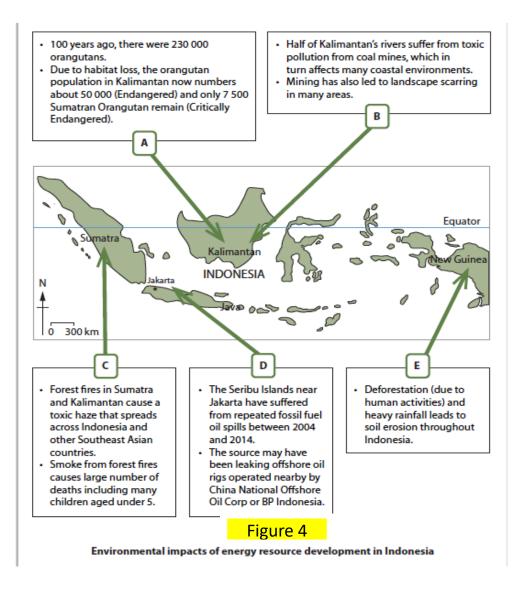
development and exploitation



(Source: © 2010 Google)

Figure 3

Aerial photograph of tar sands development



The Indonesian government needs to enforce the laws to protect the trees. Brazil's government has done this.

Norway's government

The government keeps selling permits to expand palm oil production areas. Also, some oil palm companies abandon land too quickly when the soil fertility begins to fall. They clear more rainforest every time they want new soil for their oil palms.

A university expert

The killer smoke will carry on and damage to human health will continue. People everywhere eat snack foods and use soap. They don't ask enough questions about where the palm oil used in them comes from or how it is produced.

Pressure group

Our company has pledged to stop deforestation. We will grow more palm trees per unit area in our existing plantations. But when we say we want to save the rainforest, the Indonesian government just sells it to companies who don't care as much as we do.

> A palm oil company manager

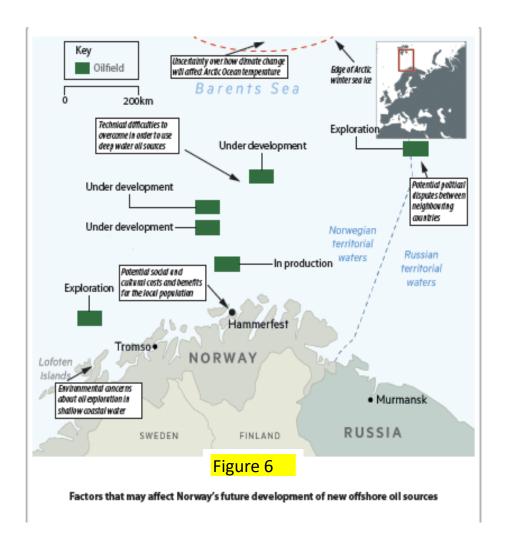
We want to develop eco-tourism here in Merabu, to attract adventurous tourists. The Norwegians paid us to save some local trees. But then a palm oil company came and cut them down. I think it's impossible to stop the worst companies.

The chief of Merabu, a village in Kalimantan It is difficult to make some villages obey the rules. A lot of fires are started where local people want to make money from palm oil too. They claim that growing oil palms will speed up the development of their local community.

A government official

Figure 5

Different views about who is most to blame for deforestation in Indonesia



It is totally idiotic to start producing oil here in the Lofoten Islands. There will be oil spills and the fish will die. The government says oil production will bring 400 new jobs but that's a pathetic number.

We have always survived as a nation by making the most of our energy resources. Our Sovereign Wealth Fund has long supported remote and challenging regions in our country, such as the Lofoten Islands. We still need as much oil as possible to maintain this fund.

#### Lofoten Islands fisherman

#### Government minister

The Norwegian government is two-faced.

On the one hand they say it is time to stop

climate change, but they keep selling oil to

countries where not enough is being done

Lofoten is "the Amazon rainforest of Norway." It is the most unique area, but exploiting oil resources here will ruin everything, and visitors will stop coming. That is why

this battle is so important.

to reduce carbon footprints. Nowhere will prosper, including the Lofoten Islands, if the world keeps warming.

#### Lofoten Islands hotel owner

#### Norwegian university student

We need Norway to stay rich. There are fewer young people than there used to be to keep the economy running. The world is becoming a dangerous place and we need to look out for ourselves.

I can't see why the fishing and oil industries can't coexist responsibly. And we'll use the profits from the Lofoten Islands' oil to keep researching and developing new energy technology that could have global benefits.

#### Norwegian pensioner

### Oil company representative

Figure 7

Conflicting views about developing the oil resources around Norway's Lofoten Islands