**Academic Year 2020 – 2021**

**Geography Department Shadow Curriculum**

**COVID-19 Remote Learning Plan – Schemes of Learning Overview**

**Purpose**

This document is designed to give a very simple overview of the units planned to be delivered through remote learning should the need arise due to issues related to the Coronavirus/COVID-19 pandemic that lead to school closures for the second half of the academic year 2019-2020.

This is designed only to give a brief overview of the units that will be covered, as this is based on the Oak National Academy curriculum and resources available online. This document is therefore simply a guide as to what would be covered and in what order, if remote learning is required. The resources are available through the Oak National Academy.

**Year 8:**

Term 1 – Weather and Climate

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| **Lesson number** | **Core content** |
| 1 What is the weather forecast?<https://classroom.thenational.academy/lessons/what-is-the-weather-forecast-60uk2c> | * Using weather symbols to accurately describe the changes in weather from one day to the next.
* Weather forecasts predict the weather in the coming days.
* Weather reports are place specific.
* Weather reports are not always accurate.
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| 2 What are the factors which affect climate?<https://classroom.thenational.academy/lessons/what-are-the-factors-that-affect-climate-crt3gc> | * There are several factors which affect the climate including: latitude, altitude, distance from the sea, prevailing wind direction, and the urban heat island effect.
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| 3 Why does it rain?<https://classroom.thenational.academy/lessons/why-does-it-rain-6cupct> | * The two main causes of rainfall in the UK are relief and frontal.
* Convectional rainfall can also take place.
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| 4 What is the climate of the UK?<https://classroom.thenational.academy/lessons/how-do-air-masses-influence-the-climate-of-the-uk-68wp8e> | * The UK has a mild, wet climate as it is in the mid-latitudes, and is influenced by the gulf stream.
* The climate of the UK is influenced by continental and maritime air masses.
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| 5 How do we use climate graphs?<https://classroom.thenational.academy/lessons/how-do-we-use-climate-graphs-cnhkee> | * Climate graphs show the average temperature and rainfall for each month over the course of a year.
* Comparing climate graphs for the UK shows how the climate varies across the country e.g. the north-west vs the south-east.
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| 6 How do high pressure events affect the UK?<https://classroom.thenational.academy/lessons/how-do-high-pressure-events-affect-the-uk-crukct> | * High pressure systems bring warm, dry conditions to the UK during the summer, and cold, clear days during the winter.
* High pressure forms over the UK due to descending air.
* High pressure systems can have advantages and disadvantages for the UK, such as the 2018 summer heat wave.
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| 7 How do low pressure events affect the UK?<https://classroom.thenational.academy/lessons/how-do-low-pressure-events-affect-the-uk-74t32r> | * Low pressure systems bring wet and unsettled conditions to the UK. In the winter they can result in snowfall, which can be disruptive.
* Low pressure systems are formed by rising air. Frontal systems play a significant role in the low-pressure systems that develop over the UK.
* Low pressure systems can have significant impacts, for example Storm Dennis and Storm Jorge (2020).
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| 8 What was the Beast from the East?<https://classroom.thenational.academy/lessons/what-was-the-beast-from-the-east-c8tkcd> | * Example: The Beast from the East
* The ‘Beast from the East’ storm event was caused by polar continental air and Storm Emma.
* The Beast from the East resulted in economic, social, and environmental impacts.
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| 9 What are tropical storms and how do we measure them?<https://classroom.thenational.academy/lessons/what-are-tropical-storms-and-how-do-we-measure-them-71k3gc> | * Tropical storms are low pressure systems, found between the Tropics.
* Tropical storms are characterised by heavy rainfall, strong winds, thunder and lightning, hail etc.
* Tropical storms are measured using the Saffir-Simpson scale.
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| 10 What is New Orleans like and why is it vulnerable to tropical storms?<https://classroom.thenational.academy/lessons/what-is-new-orleans-like-and-why-is-it-vulnerable-to-tropical-storms-6wukad> | * Example: Hurricane Katrina, New Orleans
* New Orleans is in Louisiana on the south coast of the USA.
* New Orleans is a tourist destination, due to the cultural attractions e.g. the French Quarter and the Mardi Gras.
* New Orleans is at risk from tropical storms and flooding due to much of the land being below sea level.
* New Orleans has a levee system to keep the water out of the city and in the Mississippi river.
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| 11 What were the impacts of Hurricane Katrina?<https://classroom.thenational.academy/lessons/what-were-the-impacts-of-hurricane-katrina-6xk32c> | * Example: Hurricane Katrina, New Orleans
* Tropical storms have economic, social, and environmental impacts.
* Responses are classified as immediate and long-term.
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Term 2 – Life in an Emerging Country

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| **Lesson number** | **Core content** |
| 1 Where are the emerging countries?<https://classroom.thenational.academy/lessons/where-are-the-emerging-countries-cmtkcc> | * Emerging countries are often referred to as the BRICS and MINTs.
* They are mainly found in Asia, South America, Africa, and the Middle East.
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| 2 What are the features of an emerging country?<https://classroom.thenational.academy/lessons/what-are-the-features-of-an-emerging-country-71hkgc> | * Emerging countries often have some similar features e.g. a large young population, large land mass, large coastlines, reserves of natural resources.
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| 3 How has the employment structure changed overtime in emerging countries?<https://classroom.thenational.academy/lessons/how-has-the-employment-structure-changed-over-time-in-emerging-countries-6xh6ce> | * Emerging countries have seen a decline in primary industries due to mechanisation, and a growth in secondary industries.
* Example: India and China have large manufacturing sectors.
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| 4 Where is China and what is it like?<https://classroom.thenational.academy/lessons/where-is-china-and-what-is-it-like-74wkge> | * Example: China
* China is in southeast Asia.
* China is the world’s most populous country.
* China has seen rapid economic growth in recent times.
* Quality of life has rapidly improved in China in recent years, especially in the cities.
* Quality of life is improving in rural areas.
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| 5 What has led to China’s success?<https://classroom.thenational.academy/lessons/what-has-led-to-chinas-success-74r3ae> | * Example: China
* China has used a range of different strategies which have led to rapid economic development. Such as, subsidising exports, attracting large TNCs, until recently the minimum wage could be classified as low etc.
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| 6 What are the advantages and disadvantages of TNCs in China?<https://classroom.thenational.academy/lessons/what-are-the-advantages-and-disadvantages-of-tncs-in-china-ctj34d> | * Example: China
* Nike has approximately 146 factories in China employing 189,000 workers.
* Nike has created advantages and disadvantages for China.
* Today, China has its own TNCs e.g. Huawei.
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| 7 Why is rural to urban migration a key feature of emerging countries?<https://classroom.thenational.academy/lessons/why-is-rural-to-urban-migration-a-key-feature-of-emerging-countries-cgwp2d> | * Urbanisation is a process taking place in emerging countries.
* Rural to urban migration is a key feature of emerging countries, due to mechanisation of rural areas e.g. India’s green revolution.
* Growing secondary and tertiary sectors have attracted workers to urban areas in search of work.
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| 8 What are mega cities and where are they located?<https://classroom.thenational.academy/lessons/what-are-megacities-and-where-are-they-located-crw3jd> | * Mega cities can be found in many countries; however, many are in emerging countries and the number is predicted to grow in the coming years.
* Mega cities have large populations, with over 10 million people living there e.g. Mumbai in India.
* Mega cities have a large natural increase due to the large young population.
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| 9 What are the opportunities in Mumbai?<https://classroom.thenational.academy/lessons/what-are-the-opportunities-in-mumbai-68t3et> | * Example Mumbai, India:
* Mumbai is the capital city of the Indian state of Maharashtra and is the second most populous city in India.
* Mumbai has many opportunities that attract people to the city e.g. employment. Mumbai has a growing finance and IT sector, along with a growing tertiary sector.
* Other opportunities include education, health care and housing.
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| 10 What are the challenges in Mumbai?<https://classroom.thenational.academy/lessons/what-are-the-challenges-in-mumbai-chh3cd> | * Example Mumbai, India:
* Rapid urban growth has created challenges in Mumbai e.g. it is one of the most congested cities in the world, leading to air pollution.
* A shortage of housing has led to squatter settlements e.g. Dharavi.
* Mumbai has a large informal economy.
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Term 3 – Tectonics

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| **Lesson number** | **Core content** |
| 1 What is the structure of the Earth?<https://classroom.thenational.academy/lessons/what-is-the-structure-of-the-earth-c8v66c> | * The earth is made up of 4 layers
* Each layer has distinct features.
* The outer crust is broken into a series of plates.
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| 2 How do the major plates of the world move? <https://classroom.thenational.academy/lessons/how-do-the-earths-plates-move-cmw6ad> | * There is evidence to suggest that the plates of the world have moved overtime e.g. Pangea, fossils etc.
* There are different causes of plate movement: convection currents, slab pull, ridge push.
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| 3 What are the different plate boundaries?<https://classroom.thenational.academy/lessons/what-are-the-different-plate-boundaries-c4tk0c> | * There are different plate boundaries:
* Destructive (convergent) e.g. Andes fold mountains and volcanoes such as Chaiten.
* Constructive (divergent) e.g. the Mid-Atlantic Ridge
* Conservative e.g. the San Andrea Fault.
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| 4 What are composite and shield volcanoes?<https://classroom.thenational.academy/lessons/what-are-composite-and-shield-volcanoes-6xjk8c> | * Shield volcanoes are formed on constructive (divergent boundaries) and composite volcanoes are formed on destructive (convergent margins).
* Shield volcanoes and composite volcanoes have distinct features due to their formation.
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| 5 How can we predict, protect, and prepare for volcanic eruptions?<https://classroom.thenational.academy/lessons/how-can-we-predict-protect-and-prepare-for-volcanic-eruptions-6wv3er> | * Prediction includes tiltmeters, smoke, tremors, sulphur dioxide levels etc.
* Protection includes evacuation (exclusion zones), grounding aeroplanes, closing roads etc.
* Preparation includes training emergency services, ensuring residents have emergency supplies, good communication systems in place etc.
 |
| 6 What are the positive and negative impacts of volcanoes?<https://classroom.thenational.academy/lessons/what-are-the-positive-and-negative-impacts-of-volcanoes-ccv38c> | * Living in volcanic areas such as Iceland can provide a range of opportunities e.g. tourism, geothermal energy etc.
* However, they can also have negative impacts e.g. 2010 eruptions of Eyjafjallajökull.
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| 7 How can we measure and predict earthquakes?<https://classroom.thenational.academy/lessons/how-can-we-measure-and-predict-earthquakes-cmrk4r> | * Earthquakes are measured using the Richter and Mercalli Scale.
* We can predict earthquakes by measuring tremors and identifying irregular patterns, measuring radon gas and underground water levels, monitoring animal behaviour e.g. 1975 Haicheng earthquake.
* Prediction is difficult and has limitations.
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| 8 How can we prepare and protect against the impacts of earthquakes?<https://classroom.thenational.academy/lessons/how-can-we-prepare-and-protect-against-the-impact-of-earthquakes-69jpae> | * Preparation takes many forms e.g. earthquake drills, training the emergency services, emergency first aid kits etc.
* Protection – earthquake proof buildings, retrofitting buildings, automatic shut-off switches to gas and electric etc.
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| 9 Where is Haiti and what is it like?<https://classroom.thenational.academy/lessons/where-is-haiti-and-what-is-it-like-6th34d> | * Example: Haiti.
* Haiti is in the Caribbean and shares a border with the Dominican Republic.
* Haiti is the poorest country in the western hemisphere and is at risk from natural hazards.
* Haiti is located on a conservative margin.
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| 10 What happened in the 2010 Haiti earthquake?<https://classroom.thenational.academy/lessons/what-happened-in-the-2010-haiti-earthquake-70v3et> | * Example: Haiti.
* The primary and secondary effects of the 2010 Haiti earthquake.
* The immediate and long-term responses.
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| 11. What are Tsunamis and how do they form?<https://classroom.thenational.academy/lessons/what-are-tsunamis-and-how-do-they-form-c8t32r> | * Tsunamis are large waves, usually caused by volcanic or earthquake activity under the ocean.
* They occur due to an earthquake, volcano or landslide happening on the ocean floor, causing water to be displaced.
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| 12 Where is Japan and what is it like?<https://classroom.thenational.academy/lessons/where-is-japan-and-what-is-it-like-cdgpcr> | * Example: The Japanese Tsunami 2010
* Japan is in east Asia and is made up of many islands.
* Japan is a developed country, which is at risk from tectonic hazards.
* The cause of the 2010 Tsunami.
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| 13. What happened during the 2010 Japanese Tsunami?<https://classroom.thenational.academy/lessons/what-happened-during-the-2011-japanese-tsunami-6wv3gd> | * Example: The Japanese Tsunami 2010
* There were a range of primary and secondary impacts.
* The immediate and long-term responses.
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Term 4 – Geology of the UK

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| **Lesson number** | **Core content** |
| 1 What are the UK’s main rock types?<https://classroom.thenational.academy/lessons/what-are-the-uks-main-rock-types-6tgk2e> | * The distribution of the UK’s main rock types: sedimentary, igneous, metamorphic.
* The link between geology and upland and lowland areas of the UK.
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| 2 How does rock type affect where we live?<https://classroom.thenational.academy/lessons/how-does-geology-influence-the-uk-c8uk2c> | * Geology has influenced the distribution of the population and certain industries (e.g. farming) in the UK.
* Example: Comparison between north west UK and the south east.
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| 3 What is the rock cycle?<https://classroom.thenational.academy/lessons/what-is-the-rock-cycle-6gt30t> | * Through weathering, erosion and large earth movements, rocks are recycled over millions of years.
* Several processes drive the rock cycle including transportation, deposition, compaction etc.
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| 4 How does weathering affect rocks? <https://classroom.thenational.academy/lessons/how-does-weathering-affect-rocks-6xh3et> | * Weathering includes freeze-thaw, chemical, onion-skin, biological.
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| 5 How do we use different rocks?<https://classroom.thenational.academy/lessons/how-do-we-use-the-different-types-of-rock-cdk3er> | * Uses of igneous rocks
* Uses of sedimentary rocks
* Uses of metamorphic rock
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| 6 What is the Peak District like?<https://classroom.thenational.academy/lessons/what-is-the-peak-district-like-69hkjd> | * Example: Peak District.
* Where is the Peak District?
* What is it like?
* What is the geology of the Peak district?
 |
| 7 What landforms occur in Limestone areas?<https://classroom.thenational.academy/lessons/how-do-limestone-pavements-form-68w38t> | * Example: Peak District.
* Limestone landscapes contain surface landforms (limestone pavements) and underground landforms (e.g. Treak Cliff Cavern near Castleton, Derbyshire).
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| 8 How do caverns form in limestone?<https://classroom.thenational.academy/lessons/how-do-caverns-form-in-limestone-areas-61j68d> | * Caverns in the Peak District
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| 9 What are the impacts related to the human extraction of rocks?<https://classroom.thenational.academy/lessons/what-are-the-impacts-of-quarrying-in-the-peak-district-74ukce> | * Example: Peak District, Hope quarry.
* Quarrying is an economic activity which has associated advantages and disadvantages, for the local area and the UK.
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| 10 How can quarrying be made more sustainable?<https://classroom.thenational.academy/lessons/what-are-the-impacts-of-quarrying-in-the-peak-district-74ukce> | * Example: Peak District, Hope quarry.
* Quarrying can be made more sustainable by only blasting at certain times, replanting trees, community projects etc.
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Term 5 – Climate Change

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| **Lesson number** | **Core content** |
| 1 What evidence do we have to show that the climate is changing?<https://classroom.thenational.academy/lessons/what-evidence-do-we-have-to-show-that-the-climate-is-changing-cmu64r> | * Evidence exists from ice cores, paintings and diaries, tree rings, temperature records etc.
* There are strengths and weaknesses to some of the historical evidence.
 |
| 2 What are the natural causes of climate change?<https://classroom.thenational.academy/lessons/what-are-the-natural-causes-of-climate-change-6rwk8r> | * There are natural causes of climate change including, orbital change, solar output, volcanic eruptions.
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| 3 What is the greenhouse effect?<https://classroom.thenational.academy/lessons/what-is-the-greenhouse-effect-chh62d> | * The greenhouse effect is important to keep the Earth warm enough to sustain life.
* The enhanced greenhouse effect is influenced by humans e.g. burning fossil fuels, cattle ranching etc.
 |
| 4 What are the possible effects of climate change?<https://classroom.thenational.academy/lessons/what-are-the-possible-effects-of-climate-change-cdhpcc> | * Climate change will have a range of potential impacts.
* Environmental: Ice sheets such as those in Greenland melt, rising sea levels could lead to flooding e.g. Maldives, Netherlands, Bangladesh, Shanghai. Decline in ocean species due to warming e.g. coral reefs bleaching etc.
* People: Droughts lead to crop failure, deaths due to lack of availability of clean water etc.
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| 5 How could climate change affect Bangladesh?<https://classroom.thenational.academy/lessons/how-could-climate-change-affect-bangladesh-c8wpcd> | * Example: Bangladesh
* Bangladesh is a low-lying delta country; 80% of the land is floodplain. Two-thirds of Bangladesh is less than 5 metres above sea level.
* Increased monsoon rains, flooding reduction in melt water from the Himalayas, mass migration etc.
 |
| 6 Why are future predictions about climate change uncertain?<https://classroom.thenational.academy/lessons/why-are-future-predictions-about-climate-change-uncertain-6ngk8d> | * Data about climate change can be used to make predictions.
* The IPCC is an international group that uses models to predict how the climate might change and the consequences of this.
* Uncertainty exists regarding future population growth, emission rates, and adaptation techniques etc.
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| 7 How can humans adapt to climate change?<https://classroom.thenational.academy/lessons/how-can-humans-adapt-to-climate-change-c8t66d> | * A range of strategies can be used including changing agricultural systems e.g. using drought resistant crops in Kenya.
* Coping with rising sea levels e.g. the Thames Barrier, or in Bangladesh building houses on stilts or on top of earth embankments.
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| 8 How has Bangladesh adapted to the threat of climate change?<https://classroom.thenational.academy/lessons/how-has-bangladesh-adapted-to-the-threat-of-climate-change-6nj3gr> | * Example: Bangladesh
* Bangladesh has developed several strategies to cope with climate change, including the construction of 224 new cyclone shelters and repairing 387 kilometres of embankment. The government has also distributed clean, energy-efficient cook stoves to 750,000 rural women etc.
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| 9 How can humans mitigate the effects of climate change?<https://classroom.thenational.academy/lessons/how-can-humans-mitigate-the-effects-of-climate-change-c4ukec> | * Carbon capture, alternative energy production, international agreements e.g. the Paris Agreement.
* However, there are some limitations of mitigation strategies e.g. the Paris Agreement.
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Term 6 – The Geography of Russia

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| **Lesson number** | **Core content** |
| 1 Where is Russia and what are some of its key human and physical features?<https://classroom.thenational.academy/lessons/where-is-russia-and-what-are-some-of-its-key-human-and-physical-features-6mv68d> | * Russia is the largest country in the world by land area.
* Russia occupies one-tenth of all the land on Earth.
* It spans 11 time zones across two continents (Europe and Asia) and has coasts on three oceans (the Atlantic, Pacific, and Arctic).
* Important cities (Moscow, St. Petersburg, Novosibirsk etc) and rivers (Volga, Don, Kama etc).
* Life in an emerging country\*
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| 2 How is the population distributed across Russia?<https://classroom.thenational.academy/lessons/where-is-russia-and-what-are-some-of-its-key-human-and-physical-features-6mv68d> | * The population of Russia is 114.5 million (2020) and it is the 9th most populous in the world.
* Russia is one of the most sparsely populated countries in the world. Its country has a population density of 9 people per square kilometre.
* Human and physical factors have influenced the population distribution of Europe.
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| 3 What is the climate like across Russia and how does this influence biome distribution?<https://classroom.thenational.academy/lessons/how-has-climate-influenced-the-distribution-of-biomes-across-russia-cgtk6c> | * Russia has distinct climatic and environmental regions.
* The taiga forest and tundra have distinct features.
* Animals and vegetations have had to adapt to the climatic conditions.
* Link: Ecosystems\*
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| 4 How have plants and animals adapted to taiga forests?<https://classroom.thenational.academy/lessons/how-have-plants-and-animals-adapted-to-taiga-forests-6th3et> | * Plants and animals have adapted to live in taiga forests in Russia.
* Examples include evergreen trees and trees that have needles rather than flat leaves etc.
* Animals have adapted e.g. ptarmigan have thick layers of downy feathers.
* Link: Ecosystems\*
 |
| 5 What are the threats to taiga forests?<https://classroom.thenational.academy/lessons/what-are-the-threats-to-taiga-forests-c4rk0r> | * Deforestation in the Taiga has many impacts, such as environmental and economic impacts. Some of these impacts are negative, some are positive.
* Example: Tar Sands.
* Link: Ecosystems/ Energy\*
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| 6 What are the opportunities and challenges of mineral extraction in the Tundra?<https://classroom.thenational.academy/lessons/what-are-the-opportunities-and-challenges-of-mineral-extraction-in-the-tundra-c8r66c> | * Russia has significant reserves of oil (8th in the world in 2016) and gas in parts of Siberia, as well as phosphates, gold, and tin.
* Example: natural gas is extracted from the Messoyakha Gas Field in western Siberia. This is one of the largest industrial enterprises in the Arctic.
* The extraction of such minerals creates opportunities and challenges.
* Link: Ecosystems/ Energy/ Life in an emerging country\*
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| 7 What is Russia’s role in global energy sources?<https://classroom.thenational.academy/lessons/what-is-russias-role-in-europes-energy-resources-6tjk4c> | * Russia plays a major role in resource (natural gas/oil) markets in Europe. Meaning many countries in Europe rely on Russia for future energy reserves.
* Previous reports that the gas could be turned off, has led to fluctuating prices in the past across Europe.
* Link: Energy/ Life in an emerging country\*
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| 8 What was the Crimea conflict and how has it been managed?<https://classroom.thenational.academy/lessons/why-does-russia-want-control-of-crimea-cnh36e> | * In 2014, Russia took control of Crimea (previously a Russian territory), which is part of Ukraine.
* Russia now has a warm water port.
* Fighting between the Ukrainian army and pro-Russian Ukrainians has taken place ever since.
* International organisations which the UK is involved in such as NATO and the UN have been involved in the conflict.
* Life in an emerging country\*
 |