Toynbee Curriculum

KS4 Topic Summaries

GEOGRAPHY

Toynbee School

Personal Best

Scheme of Learning: KS4 – Year 10

Topic Sequence:

1	2	3	
Tectonic hazards	**Weather hazards and climate change**	**Changing economic world**	**The living world**

Topic Overview:

This topic provides an introduction to Tectonic hazards and develops pupils understanding of our ever changing planet. The main aim is to gain a better understanding of plate tectonics, their devastating impact and how the human race can protect themselves depending on the level of wealth within that country.. Throughout the unit they will use a range of different maps, at different scales, to allow them to accurately locate Nepal and Chile and gain an understanding of the impacts and responses there.. The Geographical themes include understanding why plates move, the consequences of the movement and how we can reduce their impact.. The aim of this unit is that all pupils are aware of the planet around them and develop empathy to the challenge this brings.

Lesson Sequence:

To begin year 10 and their start to KS4 Geography, we will look at Natural hazards and focussing on the tectonic hazard unit initially. The intention is to highlight that we will in an ever changing environment and how these issues may impact people in other parts of the world other than the UK.

Year 10 students should have a base knowledge regarding plate tectonics as they cover part of this in Year 8. To build on this we delve deeper into their understanding. They will learn about plate tectonics and how people who live near the plate edges live a potentially hazardous life. In the sequence of lessons there will be two case studies, one linked to an area of wealth and one less developed country. Pupil's will extend their spatial awareness to a global scale as the areas are in South America and South East Asia. Pupils will analyse and reflect on the reasons why an area of wealth will cope much better with a tectonic hazard.

A range of skills are assessed within the topic. Map skills have been identified whereby pupil's will need to correctly identify specific plate boundaries and also develop empathy to have an understanding of the hardships people face after the devastating consequences of a tectonic hazard.

We will study why people live in these danger zones and how through science and technology are able to protect and monitor these hazards. Pupil's will understand the reasons why people choose to live in these danger zones, understanding that the reasons are economic or social. Following that students will evaluate the preparation and protection countries have to ensure they limit the damage from these events. Finally pupils will look at other tectonic hazards such as tsunamis and volcanoes and reducing the impact of these events.

Overall, pupils at Toynbee should have a clear understanding of the processes related to the movement of plates. They will also be able to identify impacts and responses related to their case studies.

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Sequence of Lessons:

1	Hazards introduction
2	Tectonic hazards
3	Plate boundaries
4	Plate boundaries
5	Nepal
6	Nepal
7	Chile
8	Chile
9	Living in danger zones
10	Earthquake preparation
11	Earthquake protection
12	Tsunami
13	Reducing the impact of volcanoes
14	Revision
15	Assessment
16	
17	
18	

Topic Resources:

Knowledge Map:	Tectonic Hazards	**Any other Resources:**	Revision guide

Assessment:

Knowledge:	15 question knowledge test
Application of Knowledge:	37marks related to application of knowledge

Supportive Reading:

Any supported reading listed here	BBC News article linked to volcanic eruptions Nepal/Chile articles

Scheme of Learning: KS4 – Year 10

Topic Sequence:

1	2	3	
Tectonic hazards	**Weather hazards and climate change**	**Changing economic world**	**The living world**

Topic Overview:

This topic follows after tectonic hazards and completes the Natural hazards unit. The main aim of this unit is for pupils to understand global weather patterns, how they impact an area at a global scale and how we can reduce that impact. Throughout the unit they will use a range of different map skills, analyse how hurricanes form, their structure and how they impact a low income country such as the Philippines. After covering this section pupils will cover climate change. This is highly topical as our world is being impacted by ourselves. Therefore, we study natural and human causes of climate change and how the human race can adapt and mitigate towards these changes. At the end of this unit, all students should be aware that we are living in a ever changing planet and our future is in our own hands.

Lesson Sequence:

Pupils will have completed the tectonic hazard part of the topic and the lessons are sequenced so that weather hazards and climate change is next. They initially learn about the global atmospheric circulation model which ties in with the living world topic which they complete towards the end of Year 10. This lesson educates students on the patterns and trends of wind patterns giving students a base understanding for what lies ahead. E continue the journey students will learn about tropical storms, where they occur on our planet and why they occur there. This will bring in their previous learning around the global atmospheric circulation model. It is imperative students are clear on the formation and the structure of hurricanes and continued knowledge quizzes increase their understanding.

In Year 10 students will have some knowledge having covered parts of this in Year 7. After gaining an understanding of what causes a tropical storm we identify and analyse an example. We currently are using typhoon Haiyan as an area devastated by a tropical storm. Pupils will gain a understanding of the impacts and responses to this. Pupils should have an understanding of a sense of place to another region of SE Asia building on the tectonic case study in Nepal, also in SE Asia. We then focus on the UK and why the weather in our local and national area is becoming more extreme. We will analyse a case study and identify the social and economic impacts. This leads us into the last part of the unit which is climate change.

Our planet is changing, students will need to understand that it hasn't always been because of humans; therefore we initially look at natural and human causes of climate change. Students are able to identify how volcanic eruptions or sunspots also cause our planets temperature to change.

Finally, we identify what the human race can do to limit the hazard of climate change. We have a sequence of lessons linked to mitigation and adaptation. World leaders meet regularly to agree targets on climate change , therefore we discuss is this working alongside adaptations such as sea defences. Pupil's also discuss what the future holds for our planet if can cannot control our global emissions. Pupils will continue to revisit this topic as climate change interweaves through all topics.

Sequence of Lessons:

1	Global atmospheric circulation
2	Tropical storms
3	Climate change
4	Typhoon Haiyan
5	Reducing the impact of tropical storms
6	Extreme weather
7	Is weather becoming more extreme?
8	Storm Desmond
9	Intro to climate change
10	Natural causes of climate change
11	Human causes of climate change
12	Climate change mitigation
13	International agreements
14	Climate change adaptation
15	Revision
16	Assessment
17	
18	

Topic Resources:

Knowledge Map:	Weather hazards and climate change	**Any other Resources:**	

Assessment:

Knowledge:	20 question knowledge test
Application of Knowledge:	38 marks related to application of knowledge

Supportive Reading:

Any supported reading listed here	

Scheme of Learning: KS4 – Year 10

Topic Sequence:

1	2	3	
Tectonic hazards	Weather hazards and climate change	Changing economic world	The living world

Topic Overview:

This is the second topic covered in Year 10 and builds on their knowledge in Year 8. The main aim is to give students an understanding of the world around them linked to a number of regions around the world. For example, we identify the impact of tourism on Jamaica, aid and the impact of TNC's in Nigeria. Towards the end of the quality we identify national issues in the United Kingdom. Pupils develop their empathy and communication skills throughout the topic. The concept of inequality is covered throughout the sequence of lessons so pupils need to be able to identify the cause of these, but also to understand the challenges and opportunities related to them at a variety of scales.

Lesson Sequence:

Lessons follow a clear pattern which is linked to the delivery from the AQA specification. Pupils will understand how there is wide scale inequality at different scales and what can be done to reduce this gap. Pupils will be able to evaluate whether or not this has been successful.
In the lessons at the beginning of the topic pupils gain an understanding of what is development and are able to identify factors that would indicate if a country is rich or poor. This helps to form a backbone of knowledge which pupil scan use throughout the topic. Pupils identify the cause and consequence of uneven development. Map skills are integral to these lessons where students identify areas of the world where uneven development exists due to health, wealth and migration.
At his point we begin identify factors to reduce the development gap such as microfinance loans, debt relief and ecotourism. Tourism forms the basis of the first case study. This is the study of Jamaica and whether or not tourism has meant that this country has become wealthier and closed the development gap.
Building upon that knowledge we widen our sense of place to Nigeria. This is the main international case study in Changing Economic World. Pupils have to show an understanding of what has caused its lack of development, what impact Shell has on Nigeria and how oil spills have impacted tribal communities. This topic has a number of cross-curricular links with Natural hazards and Urban issues and challenges. Pupils should show a clear understanding of knowledge from the initial lessons at the beginning of the topic.
Finally, the last section of this topic is identifying inequalities in the UK and how they can be reduced. We initially analyse the North – South divide in the UK. With our school being close to the South coast students will understand through choropleth maps the differences in life expectancy and educational attainment. This leads us to how can we resolve this inequality through transport improvements such as HS2, Heathrow expansion or Liverpool 2. Other strategies such as investment in Science and Business parks will further improve pupils understanding of how governments and councils can reduce inequality. Lastly, we identify the challenge rural communities face in the Outer Hebrides and in Cambridge.
Overall, a pupil finishing this topic should be able to identify the causes off the development gap and consider the consequences. Pupils should also have clear knowledge and understanding of their case studies. Pupils will have an assessment at the end of the topic which focusses on knowledge but with the predominant focus on application of understanding.

Sequence of Lessons:

1	What is development
2	Development indicators
3	Demographic Transition Model
4	Causes of uneven development
5	Consequences of uneven development
6	Reducing the gap
7	Tourism example
8	Intro to Nigeria
9	Nigeria's changing links
10	Aid Nigeria
11	Environmental issues in Nigeria
12	Quality of life in Nigeria
13	Quality of life in Nigeria
14	The changing UK economy
15	Post industrial UK
16	Science and business parks
17	Revision
18	Assessment

Topic Resources:

Knowledge Map:	Changing economic world	**Any other Resources:**	

Assessment:

Knowledge:	15 question knowledge test
Application of Knowledge:	43 marks related to application of knowledge

Supportive Reading:

Any supported reading listed here	DFID report Malaria net consortium Regional difference in the UK

Scheme of Learning: KS4 – Year 10

Topic Sequence:

1	2	3	
Tectonic hazards	**Weather hazards and climate change**	**Changing economic world**	**The living world**

Topic Overview:

The last topic at KS4 in Year 10 is the living world. This section focusses on Tropical rainforests and cold environments. There are quite substantial links between this Geographical topic and what students learn in Science. This unit has links with previous aspects of Geography in Year 10, significantly the global atmospheric model as pupils apply this understanding to where Ecosystems are found globally. Pupils are then able to use this knowledge to understand that plants and animals have to adapt to their surroundings so that they can thrive. We identify these issues in both tropical rainforests and cold environments. Furthermore, we then identify how these fragile environments are impacted by humans. We analyse how these environment bring economic gain but at a cost to the environment. Finally we look to the future and have understanding of how we can manage these environments so that future generations benefit.

Lesson Sequence:

The sequence of lessons are linked to the AQA specification and follow a logical sequence. Initially pupils will learn about local ecosystems, how they link in relation to the nutrient cycle, biodiversity and human impact. We study a local example in Avington Park in Hampshire where change happened due to natural factors and human factors. To provide background knowledge to this, pupils will have identified an understanding of food chains and food webs. Pupils will learn how energy is lost at each trophic level and why this has occurred. Finally in this section pupils need to have an understanding of the nutrient cycle. This will form a base knowledge to how fragile environments can be impacted by human activity. Following on from gaining this base knowledge of ecosystems, we begin to focus on tropical rainforests. In this section we focus on tropical rainforests. We initially gain a sense of place, understanding where tropical rainforests are on our planet. This is followed by the structure of the rainforest where pupils analyse each layer of the rainforest and identify how animals and plants have adapted to each layer. Malaysia is an area that suffers from high levels of deforestation, pupils will analyse the cause of this deforestation and the consequences on communities such as the Kenyah tribe. Finally, all pupils should be able to identify the reasons why a rainforest should be protected and the management humans can use to protect these vital environments.

The Geography department chose for the last topic cold environments over hot desert environments. These cold environments like tropical rainforests are fragile ecosystems. Initially we identify where cold environments are on our planet and link learning from the atmospheric circulation model to improve that understanding. Identifying characteristics that are shared across cold environments and related opportunities such as mining, fishing in the Barents sea and tourism. However, there are many challenges faced in these fragile ecosystems and pupils gain an understanding of the Exxon Valdez disaster. Finally, pupils identify the management that is required for these ecosystems to thrive and how countries work together to protect them.

Sequence of Lessons:

1	Introduction to ecosystems
2	Location of ecosystems
3	Food chains and food webs
4	TRF location and climate
5	TRF structure and adaptation
6	TRF deforestation
7	TRF case study Malaysia
8	TRF why should they be protected
9	Sustainable management
10	Characteristics of cold environments
11	Opportunities of Svalbard
12	Challenges of cold environments
13	Management of cold environments
14	Revision
15	Assessment
16	
17	
18	

Topic Resources:

Knowledge Map:	The Living World	**Any other Resources:**	

Assessment:

Knowledge:	15 mark knowledge test
Application of Knowledge:	39 marks related to application of knowledge

Supportive Reading:

Any supported reading listed here	DFID report Malaria net consortium Regional difference in the UK

Scheme of Learning: KS4 – Year 11

Topic Sequence:

1	2
Resource management	Rivers and coasts

Topic Overview:

Resource management is the topic that KS4 students will begin Year 11 with. The topic is divided into two whereby pupils will focus on food, energy and water in the UK and then widen their knowledge to focus on case studies focussed in South Africa to widen their knowledge of the challenges of water use in poorer areas of the world. The issue of food, energy and water in the UK is highly topical with recent global events including Brexit, inflation and COVID. These benefits students to have a sense of place and also an understanding of what is topical and is affecting their own lives. There are cross topic links between this unit and topics from Year 10 including Changing Economic World.
As an option the Department has chosen to focus on water at a national and international scale where we identify global inequalities in the water supply and how it can be more sustainable to reduce these inequalities. Furthermore, we will then identify large scale projects such as Kielder water and the Lesotho Highland water project and identify the benefits and drawbacks of these.

Lesson Sequence:

This topic is divided into two whereby pupils will have an overview of food, water and energy in the UK but also the global scale inequalities in the resource of water. In our first lesson the initial focus is on global inequalities related to food, water and energy. There is a global divide and pupils develop an understanding that a high volume of countries have water, food and energy insecurity. Students then focus on how this has impacted the UK and develop an understanding how recent challenges such as Brexit or COVID has impacted the UK. Map skills and exam skills are developed in this unit as we develop key words to gain marks under exam conditions.

As part of the AQA specification, departments have a choice to which unit to continue with. We have chosen to focus on water security and how we can improve this. Students will therefore understand a range of case studies focussed at a range of scales.

Initially we will identify factors that will contribute to water inequality such as physical factors such as climate or economic factors related to the wealth of a particular country. We will delve further into understanding and identifying the impacts of water security. Following this we will study two case studies where water supply has increased. This will focus on Kielder water which is northern England and understand that developing infrastructure you can move water from an area of water surplus to an area of water deficit. This is a focus at a local level but our next lesson will be identify the movement of water across borders and between countries. This focus is on a large scale project in Lesotho whereby water is being transferred to South Africa.

Finally, students will look at sustainable schemes and how local people in developing countries can improve their water supply. We will also identify how local people in Hampshire can conserve their own water supply. This topic links to climate change in Year 10.
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Sequence of Lessons:

1	Intro to resource management
2	Inequalities
3	Food in the UK
4	Food in the UK
5	Water in the UK
6	Water in the UK
7	Energy in the UK
8	Energy in the UK
9	Factors contributing to water inequality
10	The impacts of water insecurity
11	Increasing water supply
12	LHWP
13	Water conservation
14	Local sustainable scheme
15	Revision
16	Assessment
17	
18	

Topic Resources:

Knowledge Map:	Resource management	**Any other Resources:**	Revision guide

Assessment:

Knowledge:	14 question knowledge test
Application of Knowledge:	38 marks related to application of knowledge

Supportive Reading:

Any supported reading listed here	Articles relating to LWHP and Kielder water

Scheme of Learning: KS4 – Year 11

Topic Sequence:

1	2
Resource management	Rivers and coasts

Topic Overview:

To complete the AQA GCSE specification, year 11 students will finish with the rivers and coast unit. This will question 3 and 4 of paper 1. This is the final section of the "living in the physical world" unit and centres around how different human and physical processes shape the land and coastlines of the UK. The unit will cover the diverse upland and lowland landscapes of the UK, the physical processes that shape rivers and coastlines, the distinctive landforms that are created from these processes and strategies that are designed to manage the effects of these physical processes. There are 3 units to chose from in this section of the GCSE. We have considered our geographic location in Hampshire and the appropriateness of studying rivers and coasts and **not glaciers.** Therefore students can complete miss this question in their exam (question 5).

Lesson Sequence:

The topic is divided into 3 main areas. These are UK physical landscapes, rivers and coasts. Firstly we identify the different upland and lowland areas of the UK and consider how geology and physical processes have created these diverse landscapes. We use examples of upland areas such as the North-West Highlands in Scotland and lowland areas such as the Fens in East of England.

To begin the river unit, we identify the different features of a river basin. Then we investigate the Bradshaw model, which shows how a river can change as you move from source to mouth. Next we will investigate the reasons for these changes and start to link to difference processes such as transportation, erosion, deposition and weathering. After this we consider how these processes help to create different distinctive landforms in the upper, middle and lower course of a river. Some of these landforms include waterfalls, V-shaped valleys and meanders, all of which are found along our example, the River Tees. Next we start to focus on the physical and human causes of flooding and how the shape of a storm hydrograph can change, depending on the natural and human characteristics of the area surrounding a river. Finally we investigate how the threat of flooding can be managed through soft and hard engineering. This links us to our Boscastle case study.

Next we focus on coastal environments and how constructive and destructive waves can help to shape our coastlines. We then look at how the waves and weather can further shape our coastlines through weathering, erosion, deposition and transportation. These processes help to create distinctive landforms such as coves, headlands, bays, spits and beaches. We then look at how the process of longshore drift can help to create depositional landforms such as spits, bars and tombolos. Finally we end the unit investigating soft and hard coastal management strategies and consider their use in areas such as Medmerry (managed retreat) and the Holderness coastline.

Sequence of Lessons:

1	UK Landscapes
2	The Bradshaw Model
3	River processes
4	Erosion Landforms
5	Erosion and depositional landforms
6	Lower course landforms
7	Hydrographs
8	Causes of flooding
9	Flood management
10	Boscastle
11	Waves
12	Weathering and mass movement
13	Coastal processes
14	Erosional landforms
15	Longshore drift
16	Coastal Management
17	Revision
18	Assessment

Topic Resources:

Knowledge Map:	Rivers and coasts	**Any other Resources:**	Revision guide

Assessment:

Knowledge:	15 question knowledge test
Application of Knowledge:	45 marks related to application of knowledge

Supportive Reading:

Any supported reading listed here	