

Course Outline: Geography Post 16 Physical Geography Year 12

Rationale – Rationale – The Physical geography subject are taught in an order that is most accessible to students. We begin with coasts as they have studied this at GCSE and students will understand a lot of the terminology / processes – meaning the leap from GCSE to A level is more accessible, in addition this links to fieldwork undertaken in October. Many choose an NEA that is linked to coasts, meaning they have the knowledge and skills to produce a realistic title. We then move onto Hazards as this is also taught at GCSE but does not have a compulsory field trip linked to it so this can be taught in winter but is still an engaging topic. We aim for students to be inspired by their geography, to engage critically with issues / places, and to apply this to the world around them.

	Topic	KEY/FUNDAMENTAL CONCEPTS	You will be assessed on: SPWs
Autumn Term	Coasts	<ul style="list-style-type: none"> The coast, and wider area, has distinctive features and landscapes. Geology changes coastal landscapes Rates of coastal erosion depend on many factors. Erosion creates landforms and coastal landscapes. Sediment transport and deposition creates landforms and coastal landscapes. 	<ul style="list-style-type: none"> Coasts essay question 12 marks
	Coasts	<ul style="list-style-type: none"> Subaerial processes and mass movement Sea level change changes coasts Coastal erosion causes threats to people Coastal flooding major and increasing risk for some Coastal erosion and flooding has serious consequences for communities. Different approaches to managing coastal recession and flooding. Holistic integrated coastal zone management (ICZM). 	<ul style="list-style-type: none"> Coasts end of Unit assessment
Spring Term	Tectonic Hazards	<ul style="list-style-type: none"> The global distribution of tectonics, plate boundaries and tectonic processes. Theories to explain plate movements. Physical processes explain the causes of tectonic hazards. The relationship between hazards, vulnerability, resilience and disaster. 	<ul style="list-style-type: none"> Tectonic essay
	Tectonic Hazards	<ul style="list-style-type: none"> Tectonic hazard profiles of contrasting hazard impacts, showing vulnerability and resilience. Development and management are important in understanding disaster impact, vulnerability and resilience. Trends and patterns for tectonic disasters and how this affects impacts. Theories to understand the prediction, impact and management of tectonic hazards. Management of impacts by a variety of mitigation and adaptation strategies. 	<ul style="list-style-type: none"> Tectonics sources questions
Summer Term	Water	<ul style="list-style-type: none"> The global hydrological cycle and it's importance The drainage basin as an open system Water budgets and river systems at a local scale. Climate change impacts on the hydrological cycle globally and locally. Physical causes and human causes of water insecurity. Consequences and risks associated with water insecurity. 	<ul style="list-style-type: none"> Y12 exam - Coasts /Tectonics,
	NEA / skills	<ul style="list-style-type: none"> Purpose/ identification of a suitable question hypothesis Fieldwork methods, research and selection of appropriate equipment Information collection, data representation and analysis 	<ul style="list-style-type: none"> NEA data collection

Data handling built in throughout Year 12 and 13

Qualitative data

- use and understand a mixture of methods, including using interviews
- interpret and evaluate a range of source material including text and pictures, such as oral accounts, newspapers, creative media, social media, aerial, oblique, ground photographs, sketches and drawings
- understand the opportunities and limitations of qualitative techniques such as sampling, and how they create particular geographical representations
- understand the ethical and socio-political implications of collecting, studying and representing geographical data about human communities.

2. Quantitative data

- understand what makes data geographical and the geospatial technologies (e.g. GIS) that are used to collect, analyse and present geographical data
- demonstrate an ability to collect and to use digital, geo-located data, and to understand a range of approaches to the use and analysis of such data
- use, interpret and analyse geographical information including **dot maps, kite diagrams, linear and logarithmic scales, dispersion diagrams, satellite images, GIS** understand the purposes and difference between the following and be able to use them in appropriate contexts:
 - descriptive statistics of central tendency and dispersion, including **Gini Co-efficient and Lorenz curve**
 - descriptive measures of difference and association from the following **statistical tests: t-tests, Spearman's rank, chi-squared; including measures of correlation and lines of best fit on a scatter plot**
 - measurement, measurement errors, and sampling.

Course Outline: Geography Post 16 Physical Geography Year 13

Rationale– In Year 13 we **begin with completing their NEA** to ensure this is fully complete and out the way before PPE exams. We then teach the two topics that are compulsory Water and Carbon / Energy. **We begin with water** as this is easier for the students to understand as they have more experience of the water cycle and the concept of water moving around a system in different forms. This then leads into the **same concepts with carbon**, by applying the cycling ideas learnt from the water topic this helps them to understand the Carbon and energy cycle. During the year we aim for students to grow as independent thinkers and informed and engaged citizens, who understand the role and importance of geography to the world’s changing peoples, places and environments.

	Topic	KEY/FUNDAMENTAL CONCEPTS	You will be assessed on: SPWs
Autumn Term	NEA	<ul style="list-style-type: none"> Analysis and explanation of information Conclusions and critical reflection on methods and results Recognising the wider geographical context 	<ul style="list-style-type: none"> NEA provisional feedback End of water topic essay
	Water	<ul style="list-style-type: none"> Deficits within the hydrological cycle from physical processes and it’s impacts Surpluses within the hydrological cycle can lead to flooding, and it’s impacts Different approaches to managing water supply, and their sustainability. 	<ul style="list-style-type: none"> Y13 exam Coasts, Tectonics, Water
Spring Term	Carbon and Energy	<ul style="list-style-type: none"> Most global carbon is locked in land stores as part of the long-term geological cycle. Biological processes store carbon on land and in the oceans on shorter timescales. The carbon cycle and links to other earth systems How the Carbon cycle is impacted by humans Energy security for countries, and reliance on fossil fuels. Reliance on fossil fuels for economic development is still the global norm. 	<ul style="list-style-type: none"> Carbon short questions
	Carbon and Energy	<ul style="list-style-type: none"> Costs and benefits to alternatives to fossil fuels Carbon cycles and the water cycle and threats by human activity. Impacts to human wellbeing from damage to the water and carbon cycles. Planetary warming risks large-scale release of stored carbon. Responses to carbon release from different players at different scales. 	<ul style="list-style-type: none"> End of Unit Carbon
Summer Term	Revision	<p>Paper 3 Preparation –Synoptic paper - focused on an issue which links to units in both the human and physical sides of the A-Level course. Studied at the end of the course, when students have the best knowledge, skills and application.</p> <p>Revision and Exam Preparation – As well as support and providing revision materials in lessons, teachers will run after school revision sessions for all units studied</p>	<ul style="list-style-type: none"> Synoptic paper External exams

Data handling built in throughout Year 12 and 13

1. Qualitative data

- a) use and understand a mixture of methods, including using interviews
- b) interpret and evaluate a range of source material including text and pictures, such as oral accounts, newspapers, creative media, social media, aerial, oblique, ground photographs, sketches and drawings
- c) understand the opportunities and limitations of qualitative techniques such as sampling, and how they create particular geographical representations
- d) understand the ethical and socio-political implications of collecting, studying and representing geographical data about human communities.

2. Quantitative data

- a) understand what makes data geographical and the geospatial technologies (e.g. GIS) that are used to collect, analyse and present geographical data
- b) demonstrate an ability to collect and to use digital, geo-located data, and to understand a range of approaches to the use and analysis of such data
- c) use, interpret and analyse geographical information including **dot maps, kite diagrams, linear and logarithmic scales, dispersion diagrams, satellite images, GIS** understand the purposes and difference between the following and be able to use them in appropriate contexts:
 - i. descriptive statistics of central tendency and dispersion, including **Gini Co-efficient and Lorenz curve**
 - ii. descriptive measures of difference and association from the following **statistical tests: t-tests, Spearman’s rank, chi-squared; including measures of correlation and lines of best fit on a scatter plot**
 - iii. measurement, measurement errors, and sampling.