



Rayner Stephens
HIGH SCHOOL

**Curriculum
Intent
for
Geography**

The intent of geography at Rayner Stephens is to provide students with essential and transferable skills to deal with, and understand, the rapidly changing world in which they will be living. The world is increasingly interconnected, with large scale economic movements and migration across the globe, and within the country. Geography gives students the opportunity to be able to understand the reasons for these changes, and their consequences. We want to create discerning and inquisitive geographers who can use their geography skills to interpret the world around them. We want our students to see a world beyond Tameside, so that they can access it, if they choose to. We want to be developing students love of learning and research, as well as helping students to create their own enquiries, making justifiable decisions, cost-benefit analyses and being able to see issues from a range of viewpoints, not just their own. We seek to create global citizens who are aware of, and passionate about, the diverse physical world in which we live.



Sustaining Ecosystems

Students will investigate the global ecosystems and the link between human wellbeing and ecosystem wellbeing and how vital that connection is. Students will explore the distribution and characteristics of the Earth's global biomes. Students will investigate the two contrasting ecosystems of tropical rainforests and polar environments, exploring physical cycles and processes that make these ecosystems distinctive, the threats posed to their existence and how humans are attempting to manage them for a more sustainable future.

UK in the 21st Century and Fieldwork

Students will discover a range of cultures, identities and economies within the UK. Students will analyse the changing nature of people's lives and work in the UK in the 21st century. Students will the global significance of the UK, this will be investigated through a study of the UK's political and cultural connections with the rest of the world. This topic will also include a piece of fieldwork for students to investigate the industrial decline and regeneration of Salford Quays.

Resource Reliance
Students will investigate emerging patterns, where demand is outstripping the supply of food, water and energy, before taking the issue of food security and considering the question 'can we feed nine billion people?'. Students will explore what it means to be food secure, how countries try to achieve this and reflect upon the sustainability of strategies to increase food security

YEAR 11

Distinctive Landscapes

Students will gain a deeper understanding of the different geomorphic processes that shape river and coastal landscapes within the UK. The process of one coastal area and one river basin in the UK will be examined along with human impact on these environments.

Dynamic Development

Students will consider the changing nature and distribution of countries along the development spectrum before examining the complex causes of uneven development. Students will investigate and analyse an in-depth study of one country, considering its development journey so far, how its global connections may influence the future and possible alternative development strategies.

Climate and Change

Students will analyse patterns of climate change from the start of the Quaternary period to the present day, considering the reliability of a range of evidence for the changes. Students will study the theories relating to natural climate change and consider the influence of humans on the greenhouse effect. Social, economic and environmental impacts of climate change at both local and global scales will be examined.

Fieldwork

Using knowledge from previous units students will investigate the human impact on one coastal area in the UK by visiting this area and collecting data.

Global Hazards

Students will investigate both weather and tectonic hazards, analysing and assessing the causes, impacts and responses to each of the different hazards through two case studies, one from the UK and one non UK based weather hazard.

YEAR 10

Exploring Rivers

Students will study the different geomorphic processes that change the river landscapes in the UK and assess the many impacts that these can have on a variety of groups of people.

Urban Futures

Students will explore how and why the global pattern of urbanisation is changing and assess the varied opportunities and challenges through an in-depth analysis and evaluation of two major cities. One city from the developing and one from the developed.

Exploring the Middle East

Students will study the physical and human features of the Middle East including the conflicts arising from oil production and the methods they are using to increase sustainability.

Exploring Resources

Students will explore the increasing demand an increasing population and climate change can have on food, water and energy resources.

Exploring Inequality

Students will explore the process of globalisation by examining the interconnected nature of different countries and how this can impact development. Students will investigate the cause and impact of these connection on countries of varying levels of development.

YEAR 9

Exploring Fieldwork

Using knowledge from previous topics students will assess the ability of the school to withstand natural hazards and suggest how the school could become earthquake proof.

Exploring Fieldwork

Using knowledge from previous units students will complete a river study discussing the varying features of the rivers different courses.

Exploring Cities

Students will understand the global pattern of urbanization and the challenges and opportunities that a rapidly urbanizing world can create.

Exploring Biomes

Students will explore the different global hot and cold biomes looking at, hot and cold deserts, the polar regions and the Tropical Rainforest.

Exploring Coasts

Students will investigate the dynamic coast of the UK looking at the different physical processes that impact the coastline and the features that are created as a result.

YEAR 8

Exploring the UK

Students will explore the physical and human geography of the UK exploring its unique geographical features. This will include differing weather patterns and the changing population.

Exploring Climate

Students will study how climate has changed over different geological periods of time. They will be introduced to the concepts of both natural and human influenced climate change.

Exploring Hazards

Students will develop an understanding of both weather and tectonic hazards studying specific case studies and studying the impacts of these hazards in different parts of the world.

Exploring Africa

Students will learn that the continent of Africa is one of the most diverse on the planet. Students will investigate the features of Africa and the significance of Nigeria and Ghana.

YEAR 7

Exploring Asia

Students will investigate the different human and physical features of the world's largest continent. A study of India and China's rapid population growth, their differing population policies and economies.

Exploring Fieldwork

Students will use their knowledge from the previous topic to measure the micro-climates around school. Students will design and implement an investigation and analyse and conclude on their own results.

Year 7 – Geography

Curriculum intent	<p>The year 7 curriculum is based on developing geographical ideas from a local to a global scale. This starts with students exploring their local area and the wider UK and its position in Europe and moving on to a contrasting continent with the study of two countries, India and China. This will then allow our students to move on to the interactions between humans and the physical landscape by discussing the issues of climate and climate change, topics which thread their way through all of their geographical learning at KS3. The use of fieldwork to then investigate these geographical processes on a smaller scale will deepen students understanding of the similarities and differences that humans face in responding to these physical processes and the responses that can be implemented when discussing the mitigation of climate change. This learning will then provide the basis for an in-depth analysis of the continent of Africa where a synoptic approach will be taken to all knowledge and skills, to deepen the global understating of human interactions with physical processes and the impacts this can have on different scales.</p>				
	Topic 1 Exploring the UK	Topic 2 Exploring Asia	Topic 3 Exploring Climate	Topic 4 Exploring Fieldwork	Topic 5 Exploring Africa
Knowledge	<ul style="list-style-type: none"> • Where the UK is located globally. • The different countries and capitals that make up the UK. • The main physical features of the UK. • The differing weather patterns in the UK linked to precipitation and temperature and its global location. • The different population demographics and their distribution in the UK. • The UK is a multi-cultural society as a result of migration. 	<ul style="list-style-type: none"> • The main human and physical features of Asia with a focus n the similarities and differences of China and India. • How the populations of China and India vary from that of the UK and what has been done in terms of population policies. • Introduction if TNCs and the impact that these have the industry in both China and India. 	<ul style="list-style-type: none"> • The process of natural climate change since the quaternary period. • The greenhouse and the enhance greenhouse effect. • The different human activities that influence the greenhouse effect. • The positives and negatives of renewable and non-renewable energy sources. • The different options for mitigation and adaptation of climate change. • What sustainability is. 	<ul style="list-style-type: none"> • Application of Exploring Climate. • The structure of a geographical investigation. • The different types of data collection methods and their benefits and disadvantages. • How to select appropriate data collection methods and construct a hypothesis. • How to construct an investigation and conduct it, including introduction, methodology, analysis, conclusion and evaluation. 	<ul style="list-style-type: none"> • The main human and physical characteristics of Africa. • The common misconception of Arica which are presented in the media. • The level of development in Ghana and Kenya and the barriers to their development. • The Ghana school feeding programme and its impact of rural areas of Ghana. • The impact of tourism on Kenya. • What sustainable development is.

New Procedural Knowledge	OS Maps Population Pyramid Choropleth Map	Bar Graph / Histogram Atlas Maps Climate Graphs (basic)	Line Graph	Qualitative and Quantitative data collection methods.	Pictogram
Assessments	Extended Writing What are the main human and physical features of the UK?	<u>KS3 Exam 1</u> Multiple choice questions. Recall Questions. Procedural Knowledge Extended piece of writing.	Extended Writing / Decision Making Should all countries respond to climate change in the same way?	<u>KS3 Exam 2</u> Multiple choice questions. Recall Questions. Procedural Knowledge Extended piece of writing.	Extended Writing How sustainable is the Ghana school feeding programme?
Enrichment	Virtual Fieldtrips to British Landmarks	Explore Asian Culture	Nasa Climate Kids	Virtual Fieldwork Investigations	Explore Ghanaian Culture Cultural Diversity Day

YEAR 7 HALF TERM – Climate

Key vocab	Definition
Greenhouse Effect	The natural process of the warming of the earth that allows life to exist.
Enhanced Greenhouse Effect	The magnifying of the greenhouse effect caused by human activities that release greenhouse gases.
Greenhouse Gases	Carbon Dioxide (CO ₂), methane nitrous oxide and CFC's (chlorofluorocarbons)
Quaternary	The last 2.6 million years
Renewable	An energy source that can be used again and will not run out, e.g. solar and wind power.
Non Renewable	An energy source that can only be used once and will eventually run out, e.g. fossil fuels and nuclear power.
Fossil Fuels	Oil, natural gas and coal which are made from decomposing plants and animals from millions of years ago.
Global Warming	The effect of the enhanced greenhouse effect where the earth's temperatures increase unnaturally.
Glacial	A very cold period of time, such as an Ice Age.
Interglacial	A warmer period of time.
Adaptation	Changing the way that you live to reduce the impacts of climate change on people and the economy, e.g. building houses on stilts in flood prone areas.
Mitigation	Trying to stop climate change from happening by reducing the amount of greenhouse gases produced.

1. Natural Climate Change

Last 2.5 million years: global climate shifted between...

- > Cold glacial periods (100,000 years)
- > Warmer interglacial periods (about 10,000 years)

20,000 years ago: Earth was cold (Ice Age)

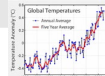
12,000 years ago: end of the last glacial period, Earth warms up.

Last 10,000 years: climate mainly warm.

Last 1000 years: climate fairly constant.

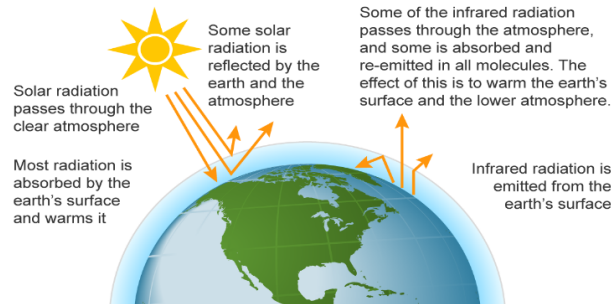
Last years 100 years: global warming – rapid increase in global temperature.

Earth is in an interglacial period.



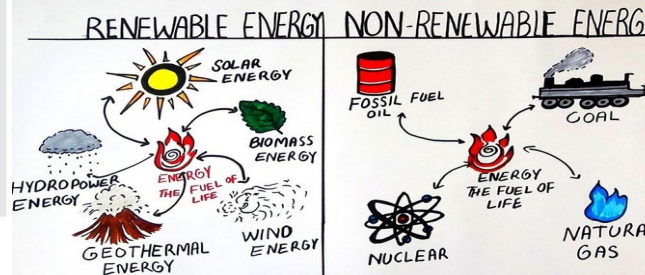
2. The Greenhouse Effect

The greenhouse effect



3. Human Activities that contribute to global warming.

Farming	Farming of livestock produces a lot of methane – cows love to fart. Rice farming contribute to global warming because flooded farms produce methane. Deforestation contributes to global warming as trees absorb CO ₂ .
Industry	Most industry uses a lot of energy. Some industrial processes also release greenhouse gases. Industrial waste may end up in landfill sites where it decays, releasing methane.
Energy	CO ₂ is released into the atmosphere when fossil fuels like coal, oil and natural gas are burnt, e.g. in power stations.
Transport	Most cars, lorries, ships and planes run on fossil fuels, which release greenhouse gases when burnt. Car ownership is rapidly increasing in countries in China. More cars are on the roads in urban areas. Congestion increases – cars are running for longer, so the amount of greenhouse gases released are increased.



4. Renewable vs Non Renewable

	Advantages	Disadvantages
Solar	Solar energy does not generate carbon emissions. Solar panels can be placed on houses allowing households to become more energy secure.	Advance costs can be expensive. Equipment needs regular maintenance. Manufacturing of panels requires fossil fuels to be used. Habitats can be damaged with solar panel farms.
Wind	Wind power does not generate carbon emissions. The land beneath turbines can be used for other things.	Wind power can only be used when the wind blows. Some people think turbines spoil views and make a noise.
Fossil Fuels	Fossil fuels have been used for many years and so they are easy to use. They generate large amounts of energy relatively cheaply.	Burning fossil fuels releases carbon dioxide, adding to global warming. The UK is dependent on prices set by other countries.
Nuclear Power	Small amounts of uranium produce lots of energy. Once up and running, it is cheap to produce electricity. Carbon emissions are low.	Accidents involving nuclear power are highly dangerous and can cause loss of life. They can also have long lasting affects. The waste from nuclear power is dangerous and so expensive to store.

5. Mitigation and Adaptation

Flood Defences – Protecting the coast from rising sea levels and flooding.

Drought Resistant Crops – Farmers will need to change the crops that they grow as temperatures change. Crops can also be genetically engineered to need less water as rainfall becomes less reliable.

Electric Vehicles – By driving electric vehicles there are less fossil fuels burnt and the issue of transport contributing the enhanced greenhouse effect is reduced.

Building Changes – When new buildings are designed ensure that they are able to withstand the impacts of climate change. For example building houses on stilts in flood prone areas.

International Agreements – Countries can get together and create targets around renewable sources of energy and greenhouse gases.

YEAR 7 HALF TERM 1 – EXPLORING THE UK

Key vocab	Definition
Borough	A district or area home to several towns
Migration	The movement of people from one area to another
Britain	The word used instead of the United Kingdom
Multiculturalism	A society that has numerous people from different ethnicities and cultural backgrounds
Human landscape	A landscape that has been altered by humans
Physical	A natural landscape that has not been altered by humans
Urban	A town or a city
Rural	The countryside
Weather	Day today conditions of the atmosphere that change in a short space of time
Climate	The weather periods in a certain area over a long period of time
Sparse	Very few items or people are found here
Dense	An area that is overcrowded with very little space

Towns found within Tameside



	Population	Capital city	Date founded	Famous people
England	55.6 million	London	927 AD	Elizabeth I Sir David Attenborough
Northern Ireland	1.9 million	Belfast	1921 AD	George Best C.S. Lewis
Scotland	5.4 million	Edinburgh	843 AD	JK Rowling Robert Burns
Wales	3.1 million	Cardiff	1057 AD	Tom Jones Roald Dahl

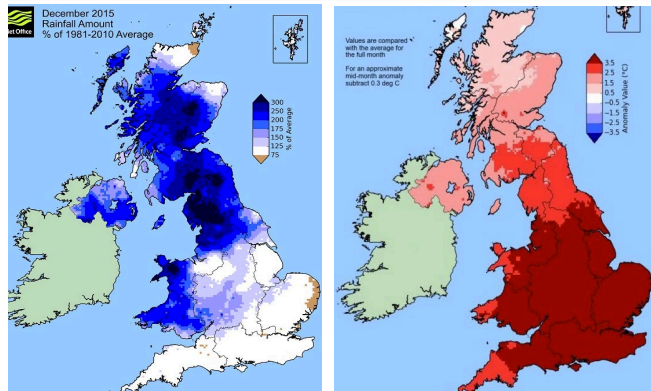


Multicultural Britain

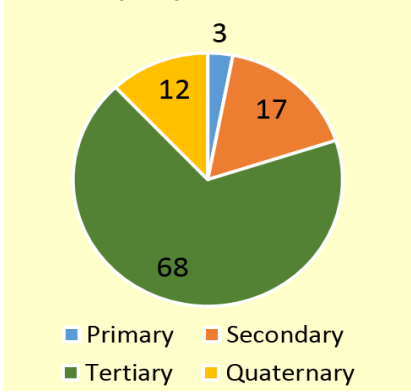
- The UK is a predominantly white country
- Migration has happened to Britain for hundreds of years which has helped Britain become multicultural – 14.4% of Britain are Black and Minority Ethnic (BME)
- Britain is home to 18 different ethnic groups

Climate of the UK

- Scotland, Northern England and Wales has the most rainfall.
- The South and East of England receives the least rainfall.
- The midlands, southern and eastern England has the highest temperatures in the UK
- Northern Scotland and Northern Ireland have the lowest temperatures



UK Employment Sectors

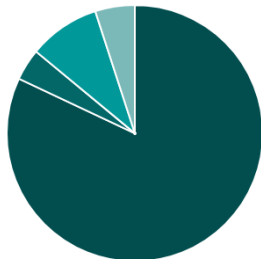


Job sector	Definition
Primary	Gathering raw materials - farmers
Secondary	Processing materials - manufacturers
Tertiary	Providing services for people – Bus drivers
Quaternary	Knowledge and skills based jobs- researcher

How many 18-24-year-olds are BME?

% 10-17-year-olds in England and Wales at time of 2011 census

- White
- Black
- Asian
- Mixed/ Other



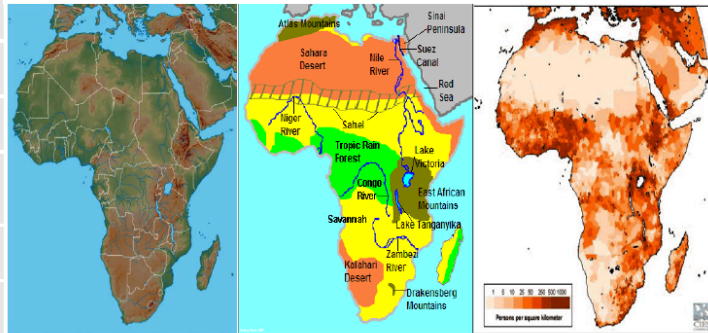
YEAR 7 SUMMER TERM – Africa

Vocab	Definition
Climate Zones	Areas with a similar climate and physical features such as plants and animals.
Poverty	When someone does not have access to basic human needs such as water, clothing, education and shelter.
Development	A measure of how advanced a country is socially, economically, or technologically.
Famine	Extreme and long-term shortage of food that results in widespread malnutrition and death by mass starvation and disease.
Drought	Abnormally low rainfall for an extended period of time.
Development Indicators	Development indicators are a method used to measure how developed a country or region is.
Barrier to Development	Human and physical reasons that there are differences between the level of development between countries.
Landlocked	A country is considered landlocked when it is surrounded on all sides by one or more other countries and therefore has no immediate coastlines.
Sustainable Development	Development that "meets the needs of the present without compromising the ability of future generations to meet their own needs"
Eco - Tourism	A form of environmentally friendly and sustainable tourism which involves people visiting areas that are usually protected such as rainforest.
Quality of Life	refers to the wellbeing of individuals or groups of people. Instead of measuring the amount of money that people have, it refers to where people live and whether they are healthy and happy.

1. A Diverse Continent

- Africa is the world's second largest continent and contains over 50 countries.
- Africa is in the Northern and Southern Hemispheres. It is spread across three of the major lines of latitude: the Tropic of Cancer, the Equator and the Tropic of Capricorn.
- Africa is surrounded by the Indian Ocean in the east, the South Atlantic Ocean in the south-west and the North Atlantic Ocean in the north-west.
- There are 54 countries in the continent of Africa.
- Across these 54 countries there are an estimated 1000-2000 languages spoken.
- Algeria is the largest country by area in Africa and Nigeria is the largest country by population.
- Africa has a number of different climate zones including Tropical Rainforest and Savanna.
- The Sahara Desert is the world's largest hot desert, located in northern Africa. The climate is hot and dry, with temperatures recorded as high as 50°C.
- The largest cities in Africa include Lagos, Kinshasa, Cairo and Johannesburg.

2. Relief, Climate and Population Density Maps of Africa.



3. Physical and Human Barriers to Development

Human

War and Conflict – Can cause damage to roads, schools and hospitals and cause a loss in population.
 Colonialism – When countries were taken control of in the past countries in Europe stole their valuable resources.
 Trade

Physical

Landlocked – With no access to the limits their ability to trade. 16 countries in Africa are landlocked.
 Climate – Some climates are more extreme and harsh limiting agriculture.
 Extreme Weather - Such as drought, flooding and tropical storms.
 Natural Hazards – Earthquakes and Volcanoes can cause damage to roads, schools and hospitals.

4. Sustainable Development Goals



6. Ghana School Feeding Programme

Not enough children in Ghana were attending school. Students were staying home and working as parents could not afford to send them in with food for the day.

The basic idea of the programme is to give children in **public primary schools one hot nutritious meal, prepared from locally grown food every day.**

The aim is to spend 80% of the feeding cost in the local economy.

The immediate objectives are to **reduce hunger and malnutrition, increase school enrolment, attendance and retention.**

The Development objective is to reduce poverty and make sure children have enough to eat every day.

7 Tourism in Kenya

Ecotourism Kenya runs a standards scheme where 86 facilities have received 23 Gold, 43 Silver and 20 Bronze standard eco-rating certificates.

Ecotourism can play a large part in helping to ensure that there are many social and economic positives coming from ecotourism.

These include:

Providing well-paid, stable jobs for the locals - these jobs include a wide range of services for tourists.

High quality education and staff training - many employees and their families will be supported through their education and will be encouraged to continue to learn through their career development.

'Community Development Projects' - many of local hotels and safari lodges and camps have set up their own 'Community Development Projects' where they will support the local community by helping to build homes and infrastructure, wells and water supplies, telecommunications and electricity. **Education** - some organisations will also support local schools and make sure that they are provided with all the provisions that will encourage children to go to school.

However, perhaps the largest impact that ecotourism can make is in how it can help to impact the environment. These include:

Sustainable buildings – any new building for a hotel or safari lodge needs to be planned carefully so that it integrates into the environment easily. Local products should be used so that they do not need to be transported long distances.

Water – water management systems should be developed to ensure that new building will not take too much water away from the local ecosystem. Grey water (from washing) and black water (from toilets and sewage) needs to be filtered and reused.

Electricity – should be generated from a sustainable source such as solar panels.

Waste – should be recycled as much as possible so that there is very little that needs to be incinerated. Strategies for managing waste and for encouraging recycling should be emphasised within every resort.

As a result, any new tourism development in the area should not have any negative environmental impact on the local environment and if anything, should have a positive impact.