Geography Department – Year 9 The Skilled Geographer.

Shirley High Curriculum Map

Students will consolidate and extend their geographical skills through the physical and human themes at the heart of the subject: rivers, coasts, development, population, tectonic hazards and climate change. Each unit demands precise terminology, a secure grasp of processes and the ability to reach and justify a judgement, so that learners finish Key Stage 3 able to think, write and argue as geographers. The year completes a broad and ambitious Key Stage 3 in its own right, while giving every student the secure knowledge and skills they need to succeed at GCSE, whether or not they choose to continue with the subject.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Theme/Topic/Skill:	Theme/Topic/Skill:	Theme/Topic/Skill:	Theme/Topic/Skill:	Theme/Topic/Skill:	Theme/Topic/Skill:
	Rivers	Coasts	Development	Populations	Earthquakes & Volcanoes	Climate Change
Why Now?	KS2 knowledge is limited to names of key rivers and some mention of the water cycle. Rivers are an important recurring geographical topic which requires sound foundations of correct complex terminology and understanding of complex processes and landforms from the outset, so demand the skilled Geographer. Place location of both near (UK) and distant places is now secure, so river processes, landforms and human interaction and physical impacts are easier to visualise and locate.	KS2 knowledge on coastal environments is limited. This is a complex dynamic theme and requires a skilled Geographer to understand the processes, interactions, varied environments, and different management strategies. There is a high level of complex terminology. Place location knowledge of both near (UK) and distant places is now at a good level, which supports this unit. Builds on knowledge of rock types (Y7). This is a topic that is revisited at both KS4 and KS5 so requires strong foundations.	As skilled Geographers, learners have a good grasp of the complexities of near and distant places and are now at a position to see how access to basic services / development varies, how to evidence this and the responsibility of the global community to respond to the issues discovered. A sound foundation for future study at KS4 and 5.	This unit builds upon Y8 units i.e. population pyramids, migration, urban growth and understanding of different places' context as well as the previous unit of Development to allow the skilled Geographer to apply this understanding to assess current populations' opportunities and challenges as well as predicting future changes to lives and urban areas. This is a sound foundation for future study at both KS4 and KS5.	This physical unit builds upon the learners' natural resources unit (Y7) and place location knowledge of major countries and continents to visualise the location of major plates and hazard events. Learners can then apply prior understanding of socio-economic status of major continents / countries so they can visualise / apply context to location and ability to manage hazards such as earthquakes and volcanoes. This unit is also a foundation for future learning at both KS4 and 5.	This unit links together many of the KS3 themes and encourages the Skilled Geographer to think about making steps to becoming a Competent Geographer by applying what has been learnt and predicting future changes. This unit is always relevant so will evolve every year and allows learners to think about the changing world around them, applying knowledge from the KS3 course. This is a perfect springboard to further study.
Fundamental Concepts	**Key concepts:** Physical processes · Time · Environmental impact · Sustainable development **Disciplinary knowledge:** Explaining processes and landform formation in sequence (6-mark answers); interpreting river features on OS maps; evaluating flood management (York) to a justified judgement. **Substantive concepts:** ● River course from source to mouth, processes and landforms ● The water cycle and drainage basin terminology ● Erosional and depositional processes and landscapes ● Use of OS maps to identify river features and interpret the landscape ● How rivers are important to people ● Causes, effects and management of floods	**Key concepts:** Physical processes · Time · Environmental impact · Sustainable development · Interdependence **Disciplinary knowledge:** A decision-making exercise (Mappleton) using cost–benefit reasoning; calculating retreat rates; field sketches from photographs; weighing hard vs soft engineering; a "to what extent" judgement. **Substantive concepts:** ● Definition of the coast and how it varies and is used (UK focus) ● Weathering and the importance of geology ● Processes of erosion and deposition ● Landforms of erosion and deposition ● Types of waves, longshore drift and transportation ● UK coastline examples (Holderness) ● How the coast can be managed and how to decide where defences are built	**Key concepts:** Scale · Interdependence · Time · Cultural awareness · Sustainable development **Disciplinary knowledge:** Selecting and critiquing development indicators (GNI vs HDI); choropleth mapping; evaluating a large-scale project (Akosombo "deal or no deal"); evaluating the SDGs. **Substantive concepts:** ● Defining development, standard of living and quality of life ● Comparing development levels around the world using indicators and the Human Development Index (HDI) ● Development is transient as well as spatial — change over time (the B.R.I.C.S.) ● Inequality within countries and within cities (the UK) ● Poverty and its causes, including gender inequality ● Aid to support development: bilateral and NGO ● Global responsibility: the Sustainable Development Goals	**Key concepts:** Time · Space · Scale · Human processes · Interdependence **Disciplinary knowledge:** Interpreting the DTM and population pyramids to predict change; using census data; collecting primary data (class migration survey); evaluating a policy (one-child) with evidence. **Substantive concepts:** ● Global population distribution and rates of growth ● The census and analysing population data ● The Demographic Transition Model ● Population pyramids to predict change ● Measures to control population (China vs Russia) ● Migration including push and pull factors and reasons ● Urbanisation and the evolution of urban areas, with a UK focus	**Key concepts:** Physical processes · Place · Interdependence · Environmental impact **Disciplinary knowledge:** Plotting real data and describing distribution; evaluating Wegener's evidence; comparing cases through fact files; judging whether hazards can be managed and how development shapes impacts. **Substantive concepts:** ● Plate tectonic theory: continental drift and sea-floor spreading ● Patterns of plate boundaries, earthquakes, volcanoes and mountain belts ● Structure of the Earth ● Types of plate boundary and why plates move (slab pull and ridge push) ● Earthquake and volcano formation, type, measurement and impacts ● Impacts can be mitigated but are linked closely to the development of places previously studied ● That people choose to live in earthquake and volcanic zones	**Key concepts:** Time · Interdependence · Sustainable development · Physical and human processes · Scale · Interpretation **Disciplinary knowledge:** Evaluating the reliability of evidence; comparing viewpoints (thirteen voices); analysing graphs over different timescales; constructing a 9-mark "to what extent" judgement (mitigation vs adaptation). **Substantive concepts:** ● Defining climate change and why it is a controversial topic ● Evidence of climate change and its reliability ● Natural and human causes: the greenhouse effect and the enhanced greenhouse effect ● Consequences of climate change, both physical and human ● What can be done: mitigation and adaptation at local, national and international scales ● Consequences for the UK ● Case studies: the Maldives and the polar regions
Students will…	**Learn about:** ● Definition of a river and key terms of source and mouth using the UK's River Tees as an example ● The water cycle and its components, and what happens when water reaches the ground (interception, infiltration, run-off) ● The features of a drainage basin: watershed, tributary, confluence (and what a hydrologist does) ● How rivers erode (hydraulic action, abrasion, attrition, solution), transport (traction, saltation, suspension, solution) and deposit material ● How a river changes from source to mouth: long and cross profiles, vertical and lateral erosion ● How rivers shape the land: the formation of waterfalls and gorges (High Force) and meanders and ox-bow lakes —	**Learn about:** ● What coasts are and how they are varied and used, with a focus on the UK (Happisburgh, Scarborough) ● Geomorphology, and the difference between weathering and erosion ● The three types of weathering (biological, chemical, physical — freeze-thaw and onion-skin) and how geology determines how a coastline forms ● The four processes of erosion and their impact on coastlines ● Identifying and explaining the formation of landforms created by erosion: headlands and bays, caves, arches, stacks, stumps and wave-cut platforms (Flamborough Head) ● Types of waves (constructive and destructive) and their importance in transportation at	**Learn about:** ● What development, standard of living and quality of life are; the Development Compass Rose; Dollar Street ● How money is distributed globally: GNI per capita as the World Bank's economic development indicator, and the extreme poverty line ● How the HDI measures a variety of development indicators (wealth, health, education) and why this is useful ● How development can change over time and at different rates in different countries, including the B.R.I.C.S. nations ● Inequality within countries and within cities: the UK's North–South divide and inequality across London ● The causes of poverty, both human and physical, including gender inequality ● How bilateral and NGO aid support development; a large-scale development project: the Akosombo Dam, Ghana ● The Sustainable Development Goals and the role all nations have as a global community	**Learn about:** ● Current population figures and how the global population has changed (the population explosion) and is forecast to change; why governments carry out a census ● How the global population is distributed and where the largest populations are found; positive and negative settlement factors ● Using the DTM to investigate how population change is linked to development ● Using population pyramids to analyse the structure of a population and predict how it may change ● How countries have tried to control population size: China's one-child policy vs Russia's incentives; over- and under-population ● Reasons people migrate: push and pull factors (migrant stories); migrants, immigrants and refugees ● The major destinations and routes of international migration, including Mexico to the USA ● The concept of urbanisation, how and where it is happening and the problems it brings (links to the India work in the Y8 Asia unit) ● How urbanisation changed a UK city: Southampton, and the Burgess land-use model	**Learn about:** ● The difference between a natural hazard and a natural disaster; hazard fact files (Guatemala and Turkey) ● Plate tectonic theory: Wegener's continental drift and its evidence; Hess's sea-floor spreading ● The location of the world's earthquakes, volcanoes, mountain belts, mid-ocean ridges and ocean trenches ● The structure of the Earth and why this is important (link to Y7 rocks in the Natural Resources unit) ● The different types of plate boundary and why plates move (slab pull and ridge push) ● How earthquakes occur (focus, epicentre, seismic waves) and vary: the Nepal 2015 case study ● How earthquake risks can be managed — the 3 Ps (Japan focus:	**Learn about:** ● Defining climate change, why it is controversial, and different viewpoints (thirteen voices, from Attenborough to sceptics) ● The evidence for climate change (artwork, ice cores, temperature records) and critically evaluating its reliability ● The natural and human causes of climate change: the greenhouse effect and the enhanced greenhouse effect; the role of greenhouse gases ● The possible future global consequences of climate change on both human and physical geography ● What can be done: mitigation (renewables, carbon capture, tree planting, the Paris Agreement) and adaptation (agriculture, water supply, rising sea levels), at local, national and international scales ● The consequences of climate change for the UK: heatwaves, drought, crop failure, pests and diseases, flooding, sea-level rise — and possible benefits ● The Maldives: impacts and adaptation in a low-lying island nation ● The importance of the polar regions (the Arctic vs Antarctica) and how they

	identifying these on OS maps • How rivers are used by people and why they are important • Human and physical causes of river flooding and how people respond to flood risk (York, 2015) • How floods can be managed: the Environment Agency's five-year plan for York; hard and soft engineering	coasts via longshore drift • Identifying and explaining the formation of landforms created by deposition: spits (Spurn Point), bars and tombolos, and their value to people • Using the UK example of Holderness to see how the coastline has changed over time and how this has affected people (Mappleton and Great Cowden) • How the coast can be managed (hold the line vs do nothing; hard and soft engineering) and the relative advantages and disadvantages • Applying knowledge of coastal management in a decision-making exercise on the future of the Holderness coast			grab bags, earthquake-resistant buildings) and why development level matters • Different types of volcano (shield and composite; active, dormant, extinct; hot spots such as Hawaii) • How volcanic activity can be managed (the 3 Ps) and why people choose to live near volcanoes • To consider whether it is possible to live safely with earthquakes and volcanoes	are changing due to climate change
Language for Life (Key terms / Vocabulary)	Evaporation, condensation, precipitation, interception, infiltration, source, mouth, estuary, drainage basin, watershed, tributary, confluence, hydraulic action, abrasion, attrition, solution, traction, saltation, suspension, meander, ox-bow lake, gorge, plunge pool. A knowledge organiser and Frayer model are given to students and used in lessons	Geomorphology, weathering, hydraulic action, abrasion, attrition, solution, headland, bay, stack, stump, wave-cut platform, constructive / destructive waves, swash, backwash, longshore drift, spit, bar, tombolo, retreat, gabions, groyne, rock armour, beach recharge, managed retreat. A knowledge organiser and Frayer model are given to students and used in lessons	Development, standard of living, quality of life, GNI per capita, HDI, indicators, B.R.I.C.S., inequality, poverty, bilateral aid, NGO, Sustainable Development Goals. A knowledge organiser and Frayer model are given to students and used in lessons	Population, census, distribution, density, sparsely / densely populated, demographer, birth / death rate, natural increase, DTM, population pyramid, over- / under-population, migration, immigrant, refugee, push / pull factors, urbanisation, land-use model. A knowledge organiser and Frayer model are given to students and used in lessons	Natural hazard / disaster, Pangaea, continental drift, sea-floor spreading, mid-ocean ridge, ocean trench, lithosphere, plate boundary, destructive, constructive, conservative, subduction, slab pull / ridge push, focus, epicentre, seismic, Richter scale, magnitude, shield / composite volcano, the 3 Ps. A knowledge organiser and Frayer model are given to students and used in lessons	Climate change, evidence, ice cores, greenhouse effect, enhanced greenhouse effect, greenhouse gases, Milankovitch cycles, sun spots, fossil fuels, mitigation, adaptation, carbon capture and storage, carbon sink, Paris Agreement, sea-level rise, ice sheet. A knowledge organiser and Frayer model are given to students and used in lessons
Extended writing Opportunities	Response to flooding: the causes of the York floods and evaluating hard vs soft engineering; GCSE-style "explain how a waterfall is formed by erosion" (6 marks).	Decision-making exercise on the management of the Holderness coast (Mappleton); "are coastal defences worth the money?" evaluation.	Extended answer on the Akosombo Dam (advantages and disadvantages of a large-scale project); evaluating the Sustainable Development Goals.	A migration story (Mexico–USA / rural to urban); evaluating population control (China's one-child policy).	GCSE-style explanations of plate boundaries and landform formation; evaluating "can we live safely with earthquakes and volcanoes?" (development-linked).	Two-paragraph summary of contrasting climate-change viewpoints; evaluating impacts on the UK; "mitigation matters more than adaptation" judgement essay.
Maths Across the Curriculum	Long and cross profiles; grid references (4- and 6-figure); interpreting flood-risk data.	Calculating cliff retreat and years-to-loss (distance ÷ rate of retreat); defence cost data (£ per metre); mean, median and mode practice.	Use of indicator data (GNI per capita, life expectancy, literacy); HDI rankings and scores; choropleth mapping (London life expectancy).	Population line graphs and the population explosion; calculating how long the population took to grow by each billion; population pyramids; bar graphs of most-populated countries.	Richter scale and magnitude; interpreting distribution maps of earthquakes and volcanoes; hazard fact-file data.	Interpretation of greenhouse gas accumulation and temperature graphs over different timescales; UK climate records and impact figures.
Links to careers / aspirations	Hydrologist, Environment Agency, town planner, engineer.	Environment Agency, engineer of coastal defences.	Charity worker, WHO, UN, the World Bank.	Town planner, demographer, Civil Service.	Volcanologist, geologist, emergency services, planners / architect, engineer.	Antarctic survey scientist, climate scientist, politician.
Cultural Capital	**Country, capital, continent routine.** The River Tees and High Force; the York floods of 2015, the public inquiry and the Environment Agency's plan; the hydrologist feature.	**Country, capital, continent routine.** Happisburgh's lost homes; the Holderness communities of Mappleton and Great Cowden; Newquay's tourist economy; whether public money should defend every coast.	**Country, capital, continent routine.** Dollar Street; London's life-expectancy divide; ActionAid and NGO work; the Akosombo Dam and Ghana; the UN Sustainable Development Goals.	**Country, capital, continent routine.** The census; China's one-child policy and its legacy; Mexico–USA migration; migrant stories; a class survey of our own families' migration; Southampton's growth.	**Country, capital, continent routine.** Eyewitness accounts from Guatemala and Turkey; Nepal 2015; Japan's culture of preparedness (grab bags); the USGS and the work of volcanologists.	**Country, capital, continent routine.** Thirteen voices on climate change from Attenborough to Trump and Chomsky; the G7 and the Paris Agreement; the Maldives; Frozen Planet II; the UK's record-breaking 2025.
Practical Application of Skills	OS map work throughout: grid references, contour patterns and identifying river landforms; field sketch and photo interpretation.	OS map and photo work (Flamborough Head, Spurn Point, Scarborough); field sketches; the Mappleton decision-making exercise.	The Development Compass Rose; Dollar Street investigation; choropleth mapping; the Akosombo Dam "deal or no deal" decision game.	Class migration survey and mapping; plotting the world's largest cities over time; mapping migrant destinations and routes.	Plotting earthquakes and volcanoes from real data with an atlas; Pangaea jigsaw; hazard fact files; Japanese grab bags.	Analysing real climate data and news (2025 UK records); viewpoint line debate; Frozen Planet II polar enquiry.