

ASPIRE – ENDEAVOUR - SUCCEED

Purpose and aims

Geography at David Nieper Academy aims to inspire in pupils a fascination about the world. Our teaching will equip pupils with lasting knowledge about diverse places, people, resources and natural and human environments, together with a deep understanding of the Earth's key physical and human geographical processes at a variety of scales. As pupils progress through the curriculum, they will appreciate how interactions between physical and human processes underpin the formation and use of multi-scalar landscapes, including their change over time.

Therefore, the Geography curriculum at David Nieper Academy aims to ensure that all pupils:

- A. Develop **contextual knowledge of the location of globally significant places**, their defining physical/human characteristics, and how they act as the setting for understanding the actions of geographical processes
- B. Understand the **processes that give rise to key physical and human features**, including their interdependence and how they bring about spatial variation and change over time
- C. Are competent in the **procedural knowledge (geographical skills)** needed to:
 - Collect, analyse and communicate with a range of data gathered through fieldwork
 - Interpret a range of sources of geographical information, including maps, diagrams, globes, aerial photos, and GIS
 - Communicate geographical information in a variety of ways, including through maps, numerical and quantitative skills and writing at length.

Threshold concepts

Our geography curriculum is structured around a few organising concepts that underpin the discipline itself, and which reflect our purpose and aims. Our threshold concepts serve as the overarching principles that appear repeatedly across the curriculum and provide the lens through which geographers understand and interpret the world. Our threshold concepts are:

- **Place.** A place is a unique and specific part of the Earth's surface that has been named and given (possibly contesting) meaning by people. When studying places, our students will consider their location, as well as the human and physical characteristics that help support a 'sense of place' for any given area. Places exist at a variety of scales, are interconnected with other places, and change over time. In line with the National curriculum in England, our curriculum ensures that students develop a particular focus on Africa, Russia, Asia (China/India), and the Middle East.
- **Process.** Places are the context for geographical processes. In this way, processes refer to the multi-scalar human or physical cause-and-effect relationships that explain the creation of features, landscapes or geographical phenomena, patterns or distributions and/or changes over time and space.
- **Interconnection.** Both places and processes are complex, and therefore do not exist or take place in isolation. Interconnection therefore refers to explicit examples of where geographical processes overlap or where places exist inter-dependently. It also refers to the interconnection between places and processes themselves, that is, the way in which processes are mediated by place context.
- **Geographical procedures.** Geographical procedures refer to the application of skills or procedural knowledge that geographers use to interpret the world and to communicate geographical information. It includes the collection and analysis of qualitative and quantitative data (in part through fieldwork), the interpretation of maps and diagrams, numerical skills and writing at length.

Sequence of learning

Pupils start the year learning about global biomes. They will be readily equipped with the skills to be able to describe the global distribution of the different biomes. This is because they studied locational factors in year 7 and have applied them throughout their geography journey in a range of different contexts; in particular, describing distribution using data is a key aspect of procedural knowledge that student encounter repeatedly. In order to understand about the characteristics of the biomes it is important that pupils understand the factors influencing them, namely climate. Pupils studied weather and climate in year 8 so already have a good understanding of the different elements, they can then apply this information to the different biomes occurring on a global scale. For example, students will revisit the impact of latitude and altitude on the effects of biome distribution. In year 7 pupils studied economic and development geography; they need this platform in order to be able to understand why an area of global importance environmentally may be exploited for economic gain when

studying threats to the biomes. There are also opportunities to link this back to their knowledge of population growth and its encroachment on the environment.

Studying glacial environments towards the end of students' KS3 geography journey means that they can make links back to other topics they have studied that support the development of schema in a topic that is particularly challenging as students have rarely encountered glacial environments through their own life experiences. For example, natural climate change which was included in year 8 will help students understand why glacial environments in the Arctic are changing. Moreover erosional, transportational and depositional features from river and coastal environments from year 7 share some of their formation processes with glacial landforms, which is why we have sequenced this in this way.

The Middle East is the first topic whereby a place is studied in its entirety as opposed to single specialist areas of geographical that focus on developing place knowledge cumulatively through the study of theories and concepts. This has been placed at the end of the course as we felt that pupils will have built a large knowledge base of conceptual knowledge and developed their geographical skills in a range of contexts in a way that develops a level of geographical expertise that allows them to apply all of this to one location. This topic covers a range of concepts that they have already studied broadly but is now refined to applying it to a specific example. These concepts include: climate, economy, development, population and resource supply issues.

Subject knowledge

7. Global biomes: systems, services and threats

- What global biomes and ecosystems are, including their global distribution and basic climate and vegetation characteristics, to include tundra, taiga, temperate forest, desert, tropical grassland, tropical rainforest
- How global biome distribution is influenced by the effects of latitude on temperature and precipitation
- Tundra characteristics: distribution (including emphasis on Russia), climate characteristics
- Impact of climate on tundra flora and fauna adaptations
- Tundra soils, including characteristics of permafrost
- Impact of climate change on permafrost
- Tropical rainforest characteristics: distribution, climate
- How climate influences the tropical rainforest soils and nutrient cycle, and how this subsequently affects biodiversity and forest vertical structure
- Tropical rainforest ecosystem services: atmospheric regulation/carbon sequestration, regulating of the hydrological cycle, resources for indigenous or local communities
- Threats to the tropical rainforest – the impact of climate change, including forest fires and biodiversity loss
- Threats to the tropical rainforest – the reasons for deforestation: commercial agriculture, subsistence agriculture, demand for hardwood, mining and resource extraction
- Oil case study: oil as a non-renewable resource, including its formation and usage
- Oil case study: causes of the distribution of oil accessibility within and beyond the tropical rainforest
- Oil case study: characteristics of alternatives to oil – solar, wind, hydroelectric, biomass, geothermal
- Approaches to tropical rainforest protection and sustainable management (replanting, selective logging, education, sustainable farming and ecotourism)

8. Glacial environments

- Different elements of the cryosphere – (ice sheets, ice caps, glaciers, and areas of snow and permafrost); what they are and where they are located.
- How and why their distribution has changed over time due to natural climate change and ice age cycles.
- The formation and movement of glaciers
- The erosional, transportation and depositional processes by which glaciers change the landscape (plucking, freeze thaw weathering, moraine, meltwater)
- The formation of a range of glacial features by erosion (U shaped valleys, truncated spurs and hanging valleys, fjords, ribbon lakes, corries, aretes and pyramidal peaks)
- To know Landforms shaped by glacial deposition and describe their formation (erratics, Drumlin, Moraine, Outwash plains, Glacial till)
- How people use glacial landscapes and landforms (tourism and hydroelectric power)
- The impact of global warming on ice environments
- The Arctic – future environmental and political issues (Russia) as a consequence of climate change

9. The Middle East

- The origins of the term 'Middle East'
- The location and key geographical features (countries, water bodies) of the Middle East

- The physical geography of the Middle East: physical zones (northern uplands of Turkey and Iran vs. lowlands of the Arabian Peninsula); river basins of the Nile, Euphrates and Tigris; and the influence of tectonic activity (Red Sea and northern fold mountain formation)
- The Middle East's two climatic zones (southern desert vs. Mediterranean in the north) and the social, political, economic and environmental issues this creates within the region
- The population of the Middle East: patterns of, and reasons for population distribution; reasons for cultural and religious diversity
- The role of oil to the economy of the Middle East, including the opportunities and challenges this presents
- Characteristics of economic diversification and subsequent rapid development in the United Arab Emirates
- Reasons for Yemen's hindered development, including conflict, the economy, corruption, infrastructure, gender equality, water-stress
- The characteristics of, reasons for, and consequences of the ongoing conflicts in the Middle East region, including the Syrian crisis.

Curriculum links to careers

Students will be introduced to the job of a Sustainability Officer. Examples of how this role is required in a number of organisations is required. The emphasis here is on skills of critical thinking and problem solving. Students will be tasked with writing a report recommending how the UK best proceed with its future energy mix to meet sustainable goals. They will have to interpret and analyse a range of data and consider the viewpoints of, and implications for, various stakeholders at a variety of scales. This will be treated as a 'best' piece of work that will be displayed via various media.