



# **Digimap for Schools**

## **GUIDE TO USING THE RESOURCE PACK**

**Geography Teaching Resource**

**Secondary Ages 11-14**

**KS3 and Level 3/4**

# Guide to using the resource

## Digimap for Schools Geography Resource Pack

The resources included are a guide for teachers to demonstrate to the whole class or direct individual students as appropriate. Each activity has several ideas within it that you can tailor to suit your class and pupils.

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## Summary of the resource

This resource is aimed at 11-14 year olds working at KS3 and CfE Level 3 and Level 4.

The resource pack contains the components to run 3 Digimap for Schools workshop sessions. For each session, two documents are provided, one is a teacher resource that contains additional information and answers and the other is a worksheet for distribution to students.

The topics of the 3 sessions are:

- Tectonic plates, mountain ranges and volcanoes
- World Biomes
- Climate change

The resource is intended as a teaching guide, with the main feature being the step-by-step Digimap for Schools worksheets. The resource is flexible about how the teachers choose to convey the geography topics, so that the practicals can be woven into existing taught content. However, the teacher lesson plans also act as a stand-alone resource as they include detailed introductions to topics and links on where to source the information needed to run the practicals.

## Learning outcomes from the resource pack

After using any of the 3 practicals, students should be able to:

- Use Digimap for Schools overlays to locate human and physical features.
- Interpret at least 2 sources of data from geographic information systems.
- Analyse and present conclusions from maps within a GIS.
- Identify spatial patterns of human activity and physical processes.
- Create a map using Digimap for Schools.

## Content of Resource Pack

| Document                            | Topic  | Format        |
|-------------------------------------|--|---------------|
| Guide to using the resource         | Curriculum links                               | Word document |
| Lesson 1 Teacher resource           | Tectonic plates, mountain ranges and volcanoes | Word document |
| Lesson 1 Student Activity Worksheet | Tectonic plates, mountain ranges and volcanoes | Word document |
| Lesson 2 Teacher resource           | World Biomes                                   | Word document |
| Lesson 2 Student Activity Worksheet | World Biomes                                   | Word document |

|                                     |   |               |
|-------------------------------------|---|---------------|
| Lesson 3 Teacher resource           | World temperature, precipitation and Climate change | Word document |
| Lesson 3 Student Activity Worksheet | World temperature, precipitation and Climate change | Word document |

## Content and Curriculum links

| Lesson | Level                  | Content   | Location   |
|--------|------------------------|---|--|
| 1      | Secondary (ages 11-14) | Tectonic plates, mountain ranges and volcanoes      | Global<br>Case studies:<br>Himalayas<br>Pacific Ring of Fire |
| 2      | Secondary (ages 11-14) | World temperature, precipitation and Climate change | Global   |
| 3      | Secondary (ages 11-14) | World Biomes  | Global   |

## Lesson 1: Tectonic plates, mountain ranges and volcanoes

| Knowledge                          | Mapping/Symbology and Labelling   |
|------------------------------------|---|
| Scottish Curriculum for Excellence | Plate Tectonics   |
| Curriculum links (England)         | Human and physical geography: Hazards- Plate Tectonics/Tectonic Hazards<br>Geographical skills: OS map skills |
| Curriculum links (Wales)           | Human and physical geography: Hazards- Plate Tectonics/Tectonic Hazards<br>Geographical skills: OS map skills |

## Lesson 2: World Biomes

| Knowledge                          | Mapping/Symbology and Labelling  |
|------------------------------------|--|
| Scottish Curriculum for Excellence | Tropical desert regions of the world<br>Tundra regions of the world  |
| Curriculum links (England)         | Human and physical geography: Global Biomes<br>Locational knowledge: Polar regions<br>Geographical skills: OS map skills |
| Curriculum links (Wales)           | Human and physical geography: Global Biomes<br>Locational knowledge: Polar regions<br>Geographical skills: OS map skills |

## Lesson 3: World temperature, precipitation and Climate change

| Knowledge                          | Mapping/Grid Reference Tool/Symbology and Labelling   |
|------------------------------------|---|
| Scottish Curriculum for Excellence | What is weather and climate?<br>Climate zones of the world  |
| Curriculum links (England)         | Human and physical geography: Weather and climate/ population and migration<br>Geographical skills: OS map skills |
| Curriculum links (Wales)           | Human and physical geography: Weather and climate/ population and migration<br>Geographical skills: OS map skills |

# Scottish Curriculum for Excellence

## Third Curriculum Level: People, place and environment

| Es and Os | Experiences and Outcomes for planning learning, teaching and assessment   | Benchmarks to support practitioners' professional judgement of achievement of a level  |
|-----------|---|--|
| SOC 3-07a | Having investigated processes which form and shape landscapes. I can explain their impact on selected landscapes in Scotland, Europe and beyond.  | <ul style="list-style-type: none"> <li>Identifies the processes which form landscapes across the world.</li> <li>Provides a simple explanation of at least three processes involved in the development of any chosen landscape, for example, coasts, volcanic, rivers or glaciated.</li> </ul>   |
| SOC 3-08a | I can identify the possible consequences of an environmental issue and make informed suggestions about ways to manage the impact.   | <ul style="list-style-type: none"> <li>Provides a simple explanation of at least three consequences of an environmental issue, and for each suggest how they could be managed.</li> </ul>  |
| SOC 3-10a | I can investigate the climate, physical features and living things of a natural environment different from my own and explain their interrelationship.  | <ul style="list-style-type: none"> <li>Describes a natural environment different to their own, in terms of climate, physical features and living things.</li> <li>Provides a simple explanation of at least three links between climate, physical features and living things in that environment.</li> </ul>   |
| SOC 3-14a | I can use a range of maps and geographical information systems to gather, interpret and present conclusions and can locate a range of features within Scotland, UK, Europe and the wider world. | <ul style="list-style-type: none"> <li>Reviews at least two simple graphical sources to interpret information and form a conclusion, for example, a map and a graph.</li> <li>Uses relevant numeracy and digital technology skills to interpret at least two sources of data from maps and graphical information systems.</li> <li>Locates increasingly complex features such as different physical landscape features and human features on maps of Scotland, the UK, Europe and the wider world for example, hills, mountains, valleys, population.</li> </ul> |

## Fourth Curriculum Level: People, place and environment

| Es and Os | Experiences and Outcomes for planning learning, teaching and assessment  | Benchmarks to support practitioners' professional judgement of achievement of a level  |
|-----------|--|--|
| SOC 4-07a | I can explain how the interaction of physical systems shaped and continue to shape the Earth's surface by assessing their impact on contrasting landscape types.                   | <ul style="list-style-type: none"> <li>Explains in some detail how at least two landscape types from across the globe are formed.</li> </ul>   |
| SOC 4-10a | I can develop my understanding of the interaction between humans and the environment by describing and assessing the impact of human activity on an area.                          | <ul style="list-style-type: none"> <li>Describes and makes at least three valid conclusions about the impact of human activity on a chosen area.</li> </ul>                                      |
| SOC 4-12a | I can identify threats facing the main climate zones, including climate change, and analyse how these threats impact on the way of life.   | <ul style="list-style-type: none"> <li>Identifies at least three threats facing main climate zones and analyses how these threats impact on the way of life.</li> </ul>                          |
| SOC 4-12b | I can carry out a geographical enquiry to assess the impact and possible outcomes of climate change on a selected region and can propose strategies to slow or reverse the impact. | <ul style="list-style-type: none"> <li>Suggests the impact and possible outcomes of climate change on a chosen region and proposes reasoned strategies to slow or reverse the impact.</li> </ul> |
| SOC 4-14a | I can use specialised maps and geographical information systems to identify patterns of human activity and physical processes.   | <ul style="list-style-type: none"> <li>Evaluates different types of maps, and geographical representations of information to inform discussion on at least three topics.</li> </ul>              |

# National Curriculum in England and Northern Ireland

## Key Stage 3 Geography

Pupils should consolidate and extend their knowledge of the world's major countries and their physical and human features. They should understand how geographical processes interact to create distinctive human and physical landscapes that change over time. In doing so, they should become aware of increasingly complex geographical systems in the world around them. They should develop greater competence in using geographical knowledge, approaches and concepts [such as models and theories] and geographical skills in analysing and interpreting different data sources. In this way pupils will continue to enrich their locational knowledge and spatial and environmental understanding.

### Pupils should be taught:

#### Locational knowledge

- extend their locational knowledge and deepen their spatial awareness of the world's countries using maps of the world to focus on Africa, Russia, Asia (including China and India), and the Middle East, focusing on their environmental regions, including polar and hot deserts, key physical and human characteristics, countries and major cities

#### Place Knowledge

- understand geographical similarities, differences and links between places through the study of human and physical geography of a region within Africa, and of a region within Asia

#### Human and physical geography

- understand, through the use of detailed place-based exemplars at a variety of scales, the key processes in:
  - physical geography relating to: geological timescales and plate tectonics; rocks, weathering and soils; weather and climate, including the change in climate from the Ice Age to the present; and glaciation, hydrology and coasts
  - human geography relating to: population and urbanisation; international development; economic activity in the primary, secondary, tertiary and quaternary sectors; and the use of natural resources
- understand how human and physical processes interact to influence, and change landscapes, environments and the climate; and how human activity relies on effective functioning of natural systems

#### Geographical skills and fieldwork

- interpret Ordnance Survey maps in the classroom and the field, including using grid references and scale, topographical and other thematic mapping, and aerial and satellite photographs
- use Geographical Information Systems (GIS) to view, analyse and interpret places and data



# Curriculum in Wales

Area of learning and experience- Humanities

## Progression Step 4 Geography

**Our natural world is diverse and dynamic, influenced by processes and human actions.**

- I can understand and explain how human actions affect the physical processes that shape places, spaces, environments and landforms over time.
- I can understand and explain the range of factors that affect the interrelationships between humans and physical processes.
- I can describe and explain the distinctive features of places, spaces and landscapes at a variety of scales, in my locality and in Wales, as well as in the wider world, along with the processes at work in them.
- I can describe and explain why spatial patterns of places, environments and landforms may change over time in my locality and in Wales, as well as in the wider world.
- I can describe and explain how places, spaces, environments and landforms have changed over time and outline the processes that cause these changes in the natural world.

## Geography- Designing your curriculum

This resource fulfils the requirements of school curriculum design, which should:

- provide rich content for exploring physical and human landscapes, and a context for the causes and consequences of physical and human inter-relationships and interdependence which characterise our modern world.
- provide a rich context for exploring the issues of sustainability, climate change, nature, natural hazards and disasters and hazard risks, pollution, scarcity of natural resources, food security, population, migration, settlements, inequality and injustice, contrasts between countries at different levels of development.
- equip learners with the skills to question, use and analyse maps, images, and Geographical Information Systems.

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