Collins

Scheme of work

Geography: Key Stage 1

Teachers Professional Development Programme

Enquiry 1: What is the geography of where I live?

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Connecting the curriculum through enquiry based learning

Key Question: What is the geography of where I live?

Learning objectives

During the enquiry pupils will have opportunities through the application and analysis of a wide range of geographical skills and resources to:

- Identify and describe physical and human geographical features of a range of environments and understand that geography is the study of how people are connected with these environments;
- Use a number of GIS layers of *Google Earth* to identify and observe familiar physical and human geographical features of the immediate vicinity of their school;
- Identify and locate where they live in the United Kingdom in relation to the four nations of the country, its largest cities and the continent of Europe;
- Using a range of layers in *Google Earth* GIS imagery, identify, describe and offer reasons for changes in land use they can observe and record in the local area of the school;
- Understand that the many different uses of land observed in the local area can be grouped into a small number of categories;
- Through fieldwork observe and record in a variety of ways, significant examples of physical and human geographical features of the local area;

Purpose of the enquiry

The primary aim of this enquiry is to introduce pupils to what geography is all about – a paradigm that underpins all of the investigations throughout this primary programme. Geography is the study of the interrelationship of people with the environments with which they interact at a variety of scales and locations. This sets geography apart from any other discipline and arguably, geography lies at the heart of all major challenges and opportunities that the human race faces today, be it population migration, climate change or realising the potential of new energy sources. Pupils have the opportunity here to explore this paradigm in very simple and basic terms. Firstly pupils are encouraged to distinguish between geographical features that are essentially 'human' in origin and those physical features that are natural or at least semi-natural. Reflecting on whether anything on Earth today can be considered truly 'natural' is something that will crop up in later enquiries.

Pupils are able to use GIS (Geographical Information System) data on *Google Earth* and *Digi-Map* together with their own local fieldwork recording and interpretation to consolidate their understanding of key concepts such as **location**, **distribution** and **change**. Above all it is hoped that pupils will gain an awareness of what geographers do, i.e. study the interactions or connections of people with environments and begin the process of becoming 'good geographers' as well as being 'good at geography'.

Context

This investigation focuses on the immediate vicinity of the school and the pupils' homes and then extends to encompass the local area. In order to establish key concepts and understanding, it is important with young geographers to begin with the known and familiar and then to extend to less well-known contexts. The enquiry combines the application of the digital content of two GIS programmes with fieldwork in the local area. This enables pupils to identify, describe and offer reasons for the location of human and physical geographical features of the environment and to begin to explain any changes in land use that have occurred.

National Curriculum coverage Geography

Pupils should be taught to:

Locational knowledge

- Name and locate the world's seven continents and five oceans.
- Name, locate and identify characteristics of the four countries and capital cities of the United Kingdom and its surrounding seas.

Place knowledge

- Understand geographical similarities and differences through studying the human and physical geography of a small area of the United Kingdom, and of a small area in a contrasting non-European country.

Human and physical geography

- Use basic geographical vocabulary to refer to key physical and human features.

Geographical skills and fieldwork

- Use world maps, atlases and globes to identify the United Kingdom and its countries as well as the countries, continents and oceans studied at this key stage.
- Use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features.
- Use simple observational skills to study key human and physical features of environments.
- Use simple fieldwork and observational skills to study the geography of their school and its grounds and the key human and physical features of its surrounding environment.

- Use interactive online mapping to plot, describe and explain a geographical walk around the local area that would introduce a visitor to some of the key physical and human geographical features;
- Recognise, identify and locate the key human and physical geographical features of their own home area and offer reasons for any current changes in land use;

Key Subject Vocabulary

Place; People; Environment; Landscape; Community; Natural; Physical geography; Human geography; Global; United Kingdom; Country; Nation; City; Capital; Continent; Ocean; Europe; Equator; Sea; Tree; Wood; Forest; Tropical; Buildings; Landslide; Beach; Wave; Motorway; Canyon; Mountain; Snow; Cliff; Town; Moor; Train; Offices; Service; Hotel; Departmental Store; Fishing; Boat; Farm; Ice; Freeze; Plough; Field; Road; Bridge; Safari; Holiday; Sport; Timber; Railway; Geo tagged; Geographical Information System (GIS); Annotated; Local area; Stadium; Change; Construction; Land use; Scale; Street; Transport; Recreation; Economic; Residential.

Connections to the subject content of other curriculum areas

English

Teachers should develop pupils' spoken language, reading, writing and vocabulary as integral aspects of the teaching of every subject. English is both a subject in its own right and the medium for teaching; for pupils, understanding the language provides access to the whole curriculum. Fluency in English is an essential foundation for success in all subjects.

Spoken language

Pupils should be taught to speak clearly and convey ideas confidently using Standard English. They should learn to justify ideas with reasons; ask questions to check understanding; develop vocabulary and build knowledge; negotiate; evaluate and build on the ideas of others; and select the appropriate register for effective communication. They should be taught to give well-structured descriptions and explanations and develop their understanding through speculating, hypothesising and exploring ideas. This will enable them to clarify their thinking as well as organise their ideas for writing.

Reading and writing

Teachers should develop pupils' reading and writing in all subjects to support their acquisition of knowledge. Pupils should be taught to read fluently, understand extended prose (both fiction and non-fiction) and be encouraged to read for pleasure. Schools should do everything to promote wider reading. They should provide library facilities and set ambitious expectations for reading at home.

Pupils should develop the stamina and skills to write at length, with accurate spelling and punctuation. They should be taught the correct use of grammar. They should build on what they have been taught to expand the range of their writing and the variety of the grammar they use. The writing they do should include narratives, explanations, descriptions, comparisons, summaries and evaluations: such writing supports them in rehearsing, understanding and consolidating what they have heard or read.

Numeracy and Mathematics

Teachers should use every relevant subject to develop pupils' mathematical fluency. Confidence in numeracy and other mathematical skills is a precondition of success across the national curriculum.

Teachers should develop pupils' numeracy and mathematical reasoning in all subjects so that they understand and appreciate the importance of mathematics. Pupils should be taught to apply arithmetic fluently to problems, understand and use measures, make estimates and sense check their work.

Pupils should apply their geometric and algebraic understanding, and relate their understanding of probability to the notions of risk and uncertainty. They should also understand the cycle of collecting, presenting and analysing data. They should be taught to apply their mathematics to both routine and non-routine problems, including breaking down more complex problems into a series of simpler steps.

Computing

Pupils should be taught to:

- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.
- Recognise common uses of information technology beyond school.
- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

NOTES

Ancillary Question 1: What is geography all about?

Divide the pupils into pairs and provide each pair with the set of photographs in **Resource 1.** Allow plenty of time for the pupils to look carefully at each image and to identify and describe what they can see. Encourage discussion and feedback and make a list on the board of all the key features that the pupils are able to recognise and speculate upon. Note also the use of important key subject vocabulary as discussion unfolds. Tell the pupils that this set of photographs helps us to understand what the subject of geography is all about and can they work out what it is?

Write the first half of a sentence on the board: *Geography is the study of* …. Now challenge the pupils to finish this sentence in just **three** words! Give each pair the opportunity to prepare what their three words are going to be and then ask a representative to come up and complete the sentence. The three words are **people and places**. All of the photographs are of different places around the world – some mainly of **human geography** (largely built environments) and some of **physical geography** (mostly natural or semi-natural environments). Can the pupils make two sets of the photographs – one for images that show mostly human geography and one for images showing mostly physical geography?

There is no longer anywhere in the world that is not impacted upon in some way by people and human activities. Even in the remotest parts of central Antarctica, ice core samples show deposits of nitrous oxide and sulphates corresponding to the beginning of the industrial revolution in Europe in the 1800s and so even this environment can't be described to as entirely 'natural'. In **Resource 2** there is a second set of photographs to show and discuss with the pupils. These images will enable the pupils to arrive at a more precise definition of what the study of geography is about. Explain to the pupils that you are hoping that they will come up with a key word that is needed to complete the definition, which at the moment says: *Geography is the study of people and places.* Encourage the pupils to see that all of the photographs show people being **connected** in some way to the places they are in e.g. building a new house or watching big game on safari in Kenya. This is the very essence of geography: *the study of the connections between people and places.*

NOTES

Ancillary Question 2: Whereabouts in the United Kingdom do I live?

Using the search facility in *Google Earth* the pupils can type in their postcode and then watch Earth spin as the programme focuses in to locate exactly where they live in the United Kingdom. *Google Earth* is a free and invaluable geographical information programme and can be downloaded at: www.google.com/earth/. If you are unfamiliar with the Geographical Information System (GIS) features of the *Google Earth* programme there are two introductory tutorials to get you underway in **Resource 3** and **Resource 4**. Support the pupils to explore around their home on screen, identifying key geographical features with which they are familiar. By clicking on and dragging the orange person icon (top right above the zoom control slider), the pupils will be able to enter and use the 'street view' feature, which will allow them to further explore the geography of where they live at ground level by moving along roads in any direction. Again this is a case of the pupils being able to identify common geographical features.

If the pupils now zoom out until the entire United Kingdom is revealed, the place marker will still show where they live. If they switch on the 'borders and labels' layer from the sidebar on the left hand side then they will be able to observe the location of where they live in relation to other major cities and the four nations of the United Kingdom. In which nation of the United Kingdom do you live? Which large city is closest to you? On a copy of the outline map of the United Kingdom in **Resource 5** the pupils can now locate where they live and mark it with a label. If, in advance, they write down the postcodes of other members of their family around the United Kingdom, then they can also search and locate these places on their map and label it with who lives there.

In addition they can also write in the names of the four nations of the United Kingdom in their correct position on their map using **Resource 6** together with the location of the four nation capitals using the map in **Resource 7**. This is also an opportunity to familiarise the pupils with the continents and oceans of the world (**Resource 8**) and how the United Kingdom is found in Europe and this can be developed further by introducing the map of the countries and cities of Europe in **Resource 9**.

NOTES

Ancillary Question 3: What does the Geographical Information System (GIS) in *Google Earth* tell me about the geography of the local area?

Begin this investigation by telling the pupils to search for the postcode of the school and then centre it in the middle of the image such as the school at Clyst St Mary in Devon in **Resource 10**. This will provide an overview of the **immediate vicinity** of the school. Divide the group into pairs and give each pair a printed copy of the image on screen by taking a screen grab (click on the second from right icon along the top tool bar and save the image), which they can then stick in the middle of an A3 piece of plain paper. Tell the pupils to switch on the *places, photos* and *roads* layers from the left hand side tool bar. Street names and road numbers will appear along with various other icons such as a wine glass to indicate public houses and restaurants; a bed for hotels and other accommodation providers; a letter for a Post Office; a flower for a garden centre or nursery and a white bus on a blue background for bus stop/shelter. A small blue square icon with a brown hill on it indicates a geo-tagged photograph with brief details that has been added by someone. All of this GIS information (i.e. geographically located information) together with the pupil's own knowledge of the vicinity of the school can now be used to create an annotated (labels around the outside with lines or arrows drawn to the feature on the image) photograph entitled: *Geographical features around our school.*

By using the zoom bar a similar screen grabbed image of the **local area** of the school (areas within approximately 15–20 minutes walking distance) such as that for Clyst St Mary in **Resource 11** can be created. This area can now form the basis of local fieldwork investigations. Before embarking on fieldwork (in Ancillary Question 5) some preliminary work can be done for this extended area just as the pupils carried out using *Google Earth* for the immediate vicinity of their school. The same layers of *places, photos* and *roads* can be switched on again and research can be extended through the use of the *time slider* facility. The icon to click on is the seventh from the left along the top tool bar (clock with green arrow above). A time slider will pop up which allows historical imagery to be accessed for various dates over the past 10–15 years. Moving the slider back to any of the dates along the line is a very effective way of the pupils observing, describing and explaining any changes in the geography of the local area. Can they see anything in the local area that has changed during their lifetime? How does the newest *Google Earth* image compare with the oldest?

This can throw up some very interesting things for the pupils to discuss and find reasons to explain. For example **Resource 12** shows the local area of Clyst St Mary Primary School in 2003. The most significant change has seen the construction of the new Exeter Rugby Club stadium adjacent to the M5 motorway. A large new caravan and motor home centre has also been built at the junction of Sidmouth Road and Clyst Road close to the A376 roundabout junction with the motorway. Such examples provide an opportunity to discuss with the pupils not only what the changes are but also why the locations for the new features might have been chosen. For example the rugby stadium is right alongside the M5 motorway, which makes it accessible by car, bus and coach. Some new housing can also be seen within the settlement, constructed in gaps between existing houses (consolidating the settlement rather than expanding its area). Pupils might also identify locations where change is currently occurring in land use and be able to describe and explain these changes.

NOTES

Ancillary Question 4: What are the main land uses within my local area?

This exercise moves pupils on from considering individual uses of land e.g. a road, garden centre, park or block of flats to making generalisations and creating a smaller number of broader land use categories. It can be completed using GIS information on *Google Earth* but will require a base map for the pupils to use. Discuss with the pupils all of the individual geographical features they have observed so far in the local area and introduce them to the key terms of **transport** (roads, railways, airports etc.) **residential** (places where people are living), **economic activity** (any business seeking to make a profit by manufacturing a product or providing a service that people pay for), **public services** (provided by the government e.g. schools and hospitals) and **open space** (natural or semi-natural).

Using the zoom and street view facility on *Google Earth* together with their own knowledge, the pupils can create very broad and simple land use zones on their base map using different colours and a key to show what land use each colour represents. The most appropriate base map to use for this exercise will be at a scale of either 1:10 000 or 1:25 000 depending on the extent of the local area identified for investigation in Ancillary Question 3. By subscribing to the Ordnance Survey's *Digimap for Schools* service http://digimapforschools.edina.ac.uk/ schools have the facility to easily create and print A4 and A3 map extracts at eight different scales for their local area including as large as 1:5000 (free trial at http://digimapforschools.edina.ac.uk/dfs-free/schools-trial). If a map extract is printed to cover (as near as possible) the *Google Earth* image captured in **Resource 11** then pupils can create a colour coded land use map with a key of their local area entitled: *Land use map of the local area.*

NOTES

Ancillary Question 5: How can we introduce people to the physical and human geography of our local area?

Using a 1:10 000 map extract from *Digimap* the pupils can plan the route of a geographical walk around the local area. This route should visit examples of all the different types of land use they have identified along with other key features observed from *Google Earth* layers or from their own knowledge. It will also be important for pupils to have the facility to take photographs at key locations whilst out on fieldwork. Before going out remind pupils that in geography we recognise **human features** of the environment (those which have been created largely by people) and **physical features** (those which are largely natural). Whilst walking the route, pupils can annotate their maps with the names of significant examples of both physical and human geographical features and take a photograph to illustrate later.

Take time to discuss with pupils any feature they find difficult to classify e.g. an area of newly planted trees or a field of crops. Back at school and online with *Digimap* the pupils can use a wide variety of annotation tools on their local area base map (see http://digimapforschools.edina.ac.uk/schools/Resources/allstages/userguide.pdf for basic user guide). As well as drawing a line to plot (and automatically measure) the route of their geographical walk, they can drop labels and add the images they have taken at key points on the map. Two different colour tags can be used to distinguish between physical and human geographical features. Before printing, the pupils can name their map:
A geographical walk around the local area.

NOTES

Assessment

This enquiry presents several opportunities, at different stages, to evaluate how the pupils are progressing in geography through the mastery of key geographical skills and outcomes. It is not necessarily intended that all of the following learning activities should be assessed. The list can be used as a guide for selecting one or two assessment opportunities relevant to individual pupils, rather than on a whole group basis.

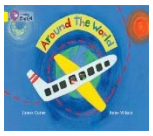
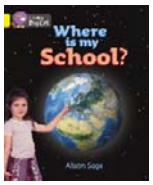
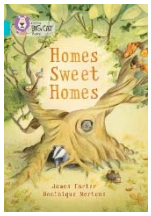
Ancillary Question	Learning Activity	Possible source of evidence of achievement
1	**Identify** and **describe** physical and human geographical features of a range of environments and **understand** that geography is the study of how people are connected with these environments	Annotated photographs to show human and physical features Oral
2	Use a number of GIS layers of *Google Earth* to **identify** and **observe** familiar physical and human geographical features of the immediate vicinity of their school	Screen grab prints from 'street view' layer of *Google Earth* with labels Oral
2	**Identify** and **locate** where they live in the United Kingdom in relation to the four nations of the country, its largest cities and the continent of Europe	Map
3	Using a range of layers in *Google Earth* GIS imagery, **identify, describe** and offer **reasons** for changes in land use they can **observe** and **record** in the local area of the school	Oral Annotated map
4	**Understand** that the many different uses of land **observed** in the local area can be grouped into a small number of categories	Simple land use map of local area
5	Through fieldwork **observe** and **record** in a variety of ways, significant examples of physical and human geographical features of the local area	Annotated display of photographs Graphs and charts
5	Use interactive online mapping to plot, **describe** and **explain** a geographical walk around the local area that would introduce a visitor to some of the key physical and human geographical features	Geographical walk Oral
Homework	**Recognise, identify** and **locate** the key human and physical geographical features of their own home area and offer **reasons** for any current changes in land use.	Sketch map with labels

Homework possibilities

During the course of this enquiry the pupils can apply what they are learning at school to the area immediately around where they live. With support the pupils can be encouraged to produce a simple sketch map with labels of the immediate vicinity of their home in order to identify physical and human geographical features. This can include any examples of land uses which are in the process of changing or have changed in the recent past. If possible the map can be accompanied by photographs and these maps and images can then be used to compile a display montage for the entire group entitled*: The geography of where we live.*

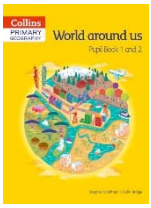
Further reading

Collins *Big Cat* has books for every child in the classroom with a wide variety of genres, top authors, relevant topics and a range of engaging formats and illustrative styles. Listed below is a selection of from the Big Cat list to support the enquiry topics in Connected Geography for KS1. Find out more at Collins *Big Cat* – www.collins.co.uk

ISBN: 978-0-00-718658-7	*Around the World*	James Carter	
ISBN: 978-0-00-718569-6	*Where is My School?*	Alison Sage	
ISBN: 978-0-00-718586-3	*What's Underground*	Gill Munton	
ISBN: 978-0-00-759110-7	*Homes Sweet Homes*	James Carter	

PRIMARY GEOGRAPHY

Collins *Primary Geography* provides a progressive, skills based scheme for primary school pupils.

ISBN: 978-0-00-756358-6	*Primary Geography Pupil Book 1/2 World around us*	Stephen Scoffham and Colin Bridge	
ISBN: 978-0-00-756368-5	*Primary Geography Interactive Resources*