

Fieldwork, enquiries and investigations

Key Stage 2

Mountains, Rivers and Coasts

- If there is a stream or river that can be easily reached nearby, visit it for formal and informal fieldwork. Take photographs and/or sketch features that can be found there. Determine the direction of the river flow and the direction to the sea and the source using a compass.
- Note the different plants you can see. Can pupils spot any fish, birds or insects? how do people use the river? Make a list of activities and facilities and whether there are any nearby access points such as car parks or bridges.
- Back in class, create a large map of the river and add feature names and images to make a display. Add images electronically using Digimap for schools.

A risk assessment is important for all river fieldwork as the water level can change from day to day and there is always a danger a child will slip or fall into the water.

Useful websites

Mountains worldwide: www.peakware.com/peaks.html

Digimap for schools: www.digimapforschools.edina.ac.uk

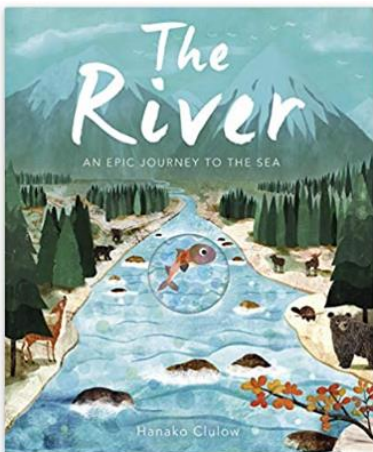
Tagxedo: www.tagxedo.com

Useful books

Clulow, H. (2016) *The River: An Epic Journey to the Sea*

Grahame, K. (1993) *The Wind in the Willows*

Turney, A. (2014) *Investigating Rivers*, Sheffield: Geographical Association



Using and Making Maps

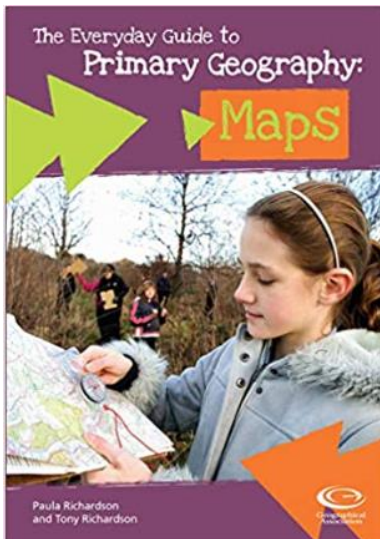
- Explain to the pupils how to calculate six-figure grid references using Ordnance Survey maps. Working from a map they need to imagine each grid square has been divided into ten subdivisions, both horizontally and vertically. The four-figure reference gives the coordinates for the bottom left hand corner of the square. The six-figure reference is more precise as it specifies the location within the square using tenths. The first three numbers give the horizontal location, known as the 'easting'. The second three numbers give the vertical location, known as the 'northing'. Practise using six-figure references in co-ordinate quizzes organized by the pupils or which you prepared in advance.

Useful websites

Ordnance Survey children's website: www.ordnancesurvey.co.uk/mapzone/

How to find the Pole star: www.youtube.com/watch?v=7DjJ3r4XG0E

Useful books



UK cities and counties

- Take pupils on a straight line UK journey linking cities and landscapes. You will need to project a map of the UK which shows settlements, physical features and lines of latitude and longitude onto the interactive whiteboard. Start at London and travel westwards along latitude 51.5 degrees north to Cardiff. Travel north from Cardiff along latitude three degrees west till you reach the Lake District. From here you can continue northwards to Edinburgh and John o'Groats. Alternatively, you can travel west along latitude 54.5 degrees to Belfast. From Belfast, longitude six degrees west takes you to Land's End in Cornwall. This straight line journey has linked three capital cities, the highest mountain area in England and the extremities of Britain. Ask pupils to draw a diagram to show the route and discuss any coincidences that strike them.

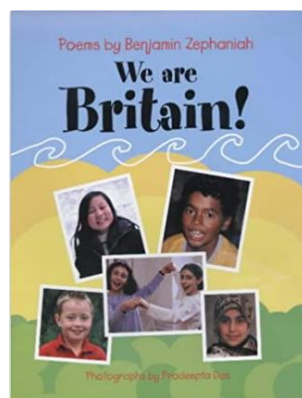
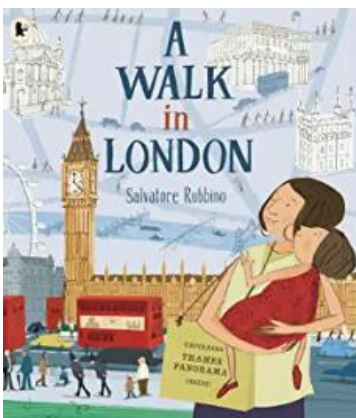
Useful websites

English counties online game: <https://www.geoguessr.com/seterra/en/vgp/3146>

Useful books

Rubbino, S (2012) A Walk in London

Zephaniah, B (2003) We Are Britain! Poems by Benjamin Zephaniah



UK Regions

- Walls and fences are only one way of establishing the boundary between different areas. Take pupils to a street near school where you can see into the front gardens from the pavement. Ask them to write down as many pairs of descriptive words that they can think of to describe the environment on either side of the boundary, e.g. concrete/soil, flat/bumpy, public/private, and so on. Repeat this exercise in a number of different locations if possible, perhaps along a route which you have planned in advance. What does this activity tell pupils about local land use? Are some ways of managing the land better for plants and wildlife than others?

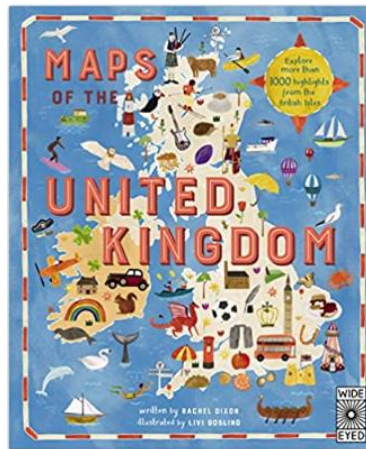
Useful websites

YouTube: Giant's Causeway animated story.

Virtual journey down the Thames:

<http://primaryhomeworkhelp.co.uk/riverthames/kids/thameshead.html>

Useful books



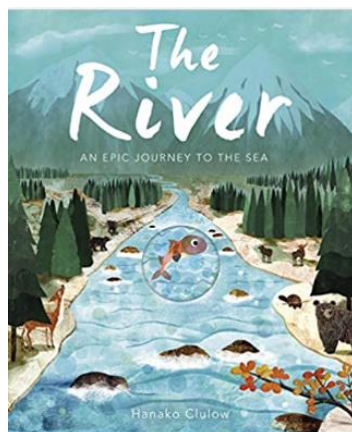
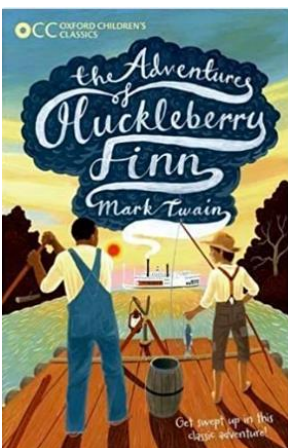
The Shape of the Land (Physical Geography-Mountains, Rivers, Local Area)

- Find local examples of different landscape features in your area. Hills and gentle slopes are common in most urban areas and children are often aware of them because they use them in their outdoor games and activities. There may also be streams and shallow valleys. Sometimes these features are reflected in street names, e.g. Valley Road, Oak Rise or Church Hill. Some areas have ponds and small lakes. In other places there are tunnels. If you live by the sea, then there will be a range of coastal features ranging from cliffs to beaches. Try to devise a walk in which pupils can see different aspects of local geography. How have people made use of them and what challenges and opportunities do they present?

Useful books

Twain, M. (2010) The Adventures of Huckleberry Finn

P Hegarty (2016) The River



Volcanoes

- Divide the class into groups to produce a papier machè model of a chosen volcano and paint it, labelling the different features. Alternatively, an adult could squirt expanded foam around a plastic bottle, building up the shape that is needed, then leave it to harden. This can then be painted and labelled by pupils. Try to base the model on a real life volcano and give it a name. When the models are finished, draw an outline map to stand each one on that shows its location.

Useful websites

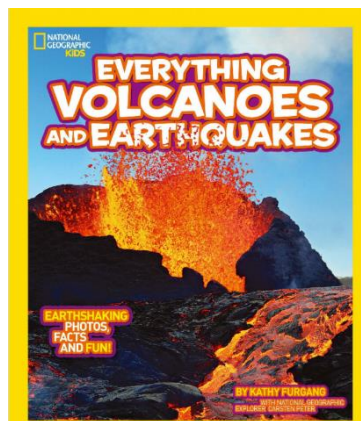
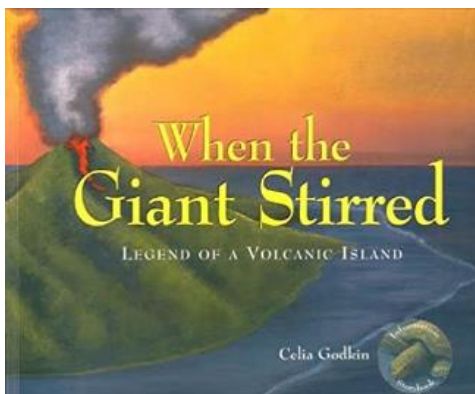
British Geological Survey website: www.bgs.ac.uk

Cut-out volcano models, British Geological Survey website: <https://www.bgs.ac.uk/discovering-geology/maps-and-resources/earth-hazards/volcano-models/>

Eruption of Eyjafjallajökull: <https://www.bbc.co.uk/news/world-europe-56465393>

Mount Etna eruption video clip: https://www.youtube.com/watch?v=8qHJO_4mXfQ

Useful books



Earthquakes and Tsunamis

- Use the outdoors to assess where a safe place might be to gather in the event that an earthquake started at school. Use outdoor areas to create simulations. Investigate criteria for safe earthquake-proof buildings and then investigate buildings in your locality and give them a rating for safety in the event of an earthquake.

Useful websites

BBC earthquake clips: <https://www.bbc.co.uk/teach/class-clips-video/geography-ks1--ks2-earthquakes/zbr2mfr>

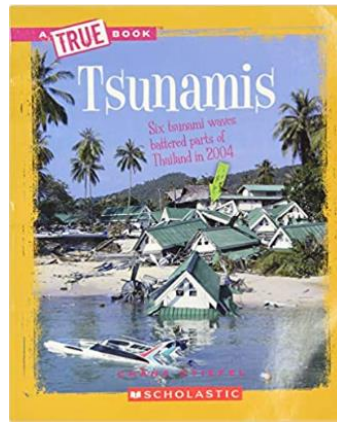
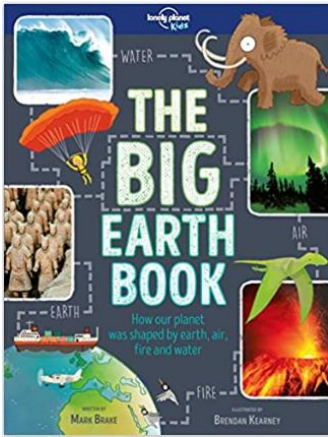
British Geological Society information about earthquakes in the UK:

www.bgs.ac.uk/discoveringGeology/hazards/earthquakes/UK.html

Plate tectonics and biscuits: www.redcross.ca/blog/2010/4/understanding-earthquakes-and-volcanoes-with-snack

Tsunamis: https://www.youtube.com/watch?v=oPb_9gOdn4

Useful books



Water and the Water Cycle

- Find out more about the water company that supplies your local homes in the local area. Ask if you can arrange a visit from a member of their education service. Even better, you may be able to book a tour of your local water treatment works. Explain that you are particularly interested in geographical issues and ask pupils to prepare questions in advance. They may want to ask about patterns of rainfall, the influence of rocks and landscapes, changes in demand, environmental problems etc.

Useful websites

YouTube video of Shaker Lane: https://www.youtube.com/watch?v=cs6nSI_EH5Y

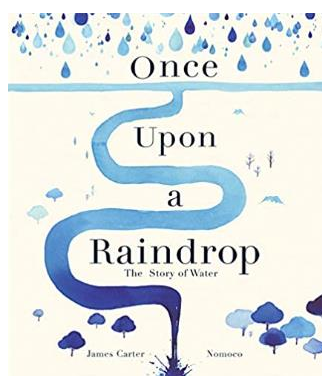
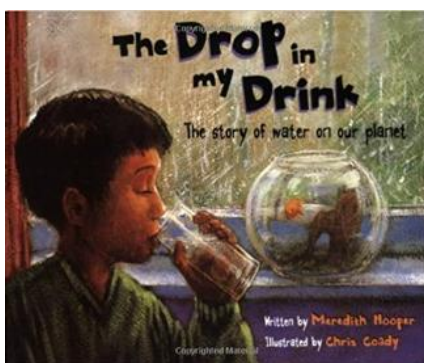
BBC Bitesize- the water cycle: <https://www.bbc.co.uk/bitesize/topics/z6p6qp3/articles/z3wpp39>

Oxfam- a new borehole in Turkana: <https://www.youtube.com/watch?v=Px24atK2rXw>

WaterAid teaching resources: www.wateraid.org/uk/get-involved/schools

Waterwise website: www.waterwise.org.uk

Useful books



Mapping the World

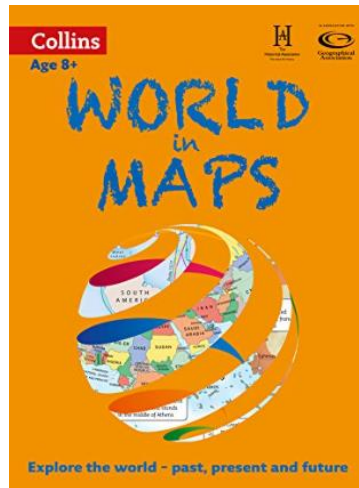
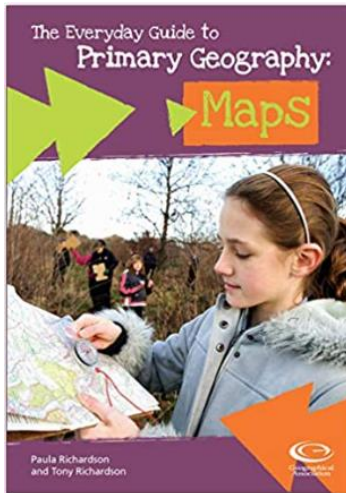
- Set up a display board where pupils display different versions of the world map from magazines, newspapers or the internet. See how map-makers use a variety of map projections. Which versions do pupils think are the best and why?

Useful websites

South Pole webcam: www.esrl.noaa.gov/gmd/obop/spo/livecamera.html

NASA website: www.nasa.gov/mission_pages/station/main/index.html

Useful books



Biomes and Vegetation Belts

- Ask pupils to look for examples of desert and rainforest plants around school, home and local area. Many of the evergreens which are often grown as pot plants originated from the rainforest. The Swiss cheese plant (central America) and African violet and Zebra plant (Brazil) are good examples.

Common desert plants include a wide range of cactuses and palms which have been gathered from around the world. Ask pupils to research the different examples they find. Discuss their location in buildings and gardens and the way people recreate the climate which the plants need.

- As a class, discuss world climate zones using a globe as a visual aid. The basic pattern is relatively simple to explain: at the equator convection currents carry moist air upwards creating clouds and heavy rain; at the tropics the air descends bringing clear skies and very hot, dry conditions; the polar regions also have generally clear skies and dry air, however, because the Sun never rises high in the sky, temperatures here are very low. The winds that blow between these three zones bring mixed weather and moderate rainfall to the places they cross. Show pupils annual world rainfall maps to confirm this pattern. Which places are very wet? Which are very dry? Which are between?

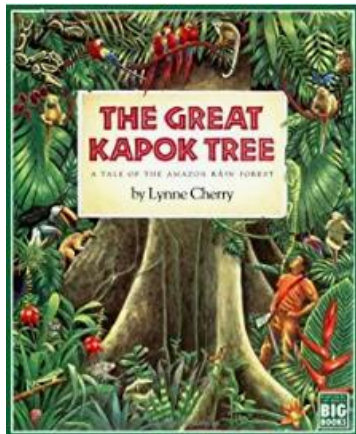
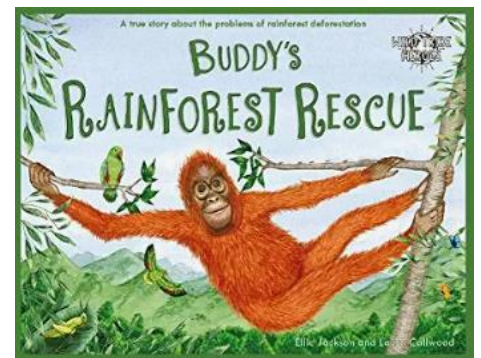
Useful websites

Sir David Attenborough programme about the savannah:

https://www.youtube.com/watch?v=LjXDNrsTG_Y

YouTube clip: Bringing the Rain to Kapiti Plain: <https://www.youtube.com/watch?v=AtGOY7mFt5Y>

Useful books



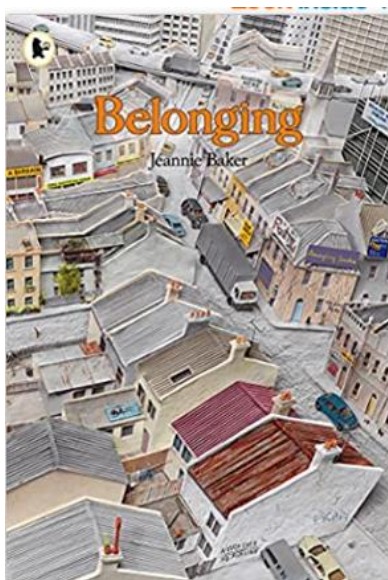
World Countries and Capitals

- Share with the pupils some of the amazing NASA images of cities at night that can be readily accessed via a Google search for 'cities at night from space'. Talk about the shape and structure of different cities and the features they can see. Next, switch to a night image of the UK and neighbouring cities. What places can the pupils see? Use an atlas to name some of the other places shown in the image.

Useful websites

Charter of human rights (simplified version): www.youthforhumanrights.org/what-are-human-rights/universal-declaration-of-human-rights/articles-1-15.html

Useful books



Settlement and Migration

- As a class, discuss what people need in order to survive. Water, warmth, food, fresh air and waste disposal are some of the most important considerations. Communications and recreation also need to be taken into account. Ask pupils to design a survival capsule for sustainable living. Challenge them to think imaginatively about how the capsule will protect them from extreme conditions and how it can make maximum use of recycling and thus become more or less self-sustaining.

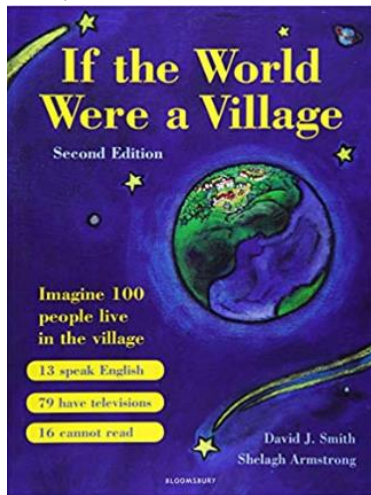
Useful websites

If the World Were 100 people video: <https://www.youtube.com/watch?v=QFrqTFRy-LU>

United Nations Commissioner for Refugees (UNHCR): www.unhcr.org/uk

See also resources from Oxfam, Save the Children and the Refugee Council.

Useful books



South America

- Lake Titicaca provides a unique habitat for plants and creatures. Arrange a fieldwork trip to your nearest pond or lake so children can investigate an aquatic environment for themselves. What different life forms can they discover? Now think about some of the ways that people use the area and make good use of water. Where would be a good place for a new pond in your area? Ask pupils to draw maps and notes about their proposals.

Useful websites

Digital maps: <https://digimapforschools.edina.ac.uk/>

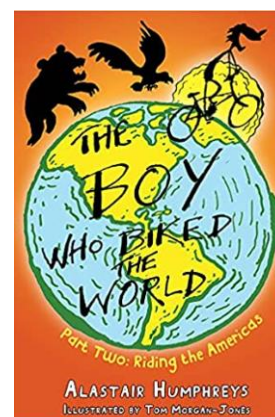
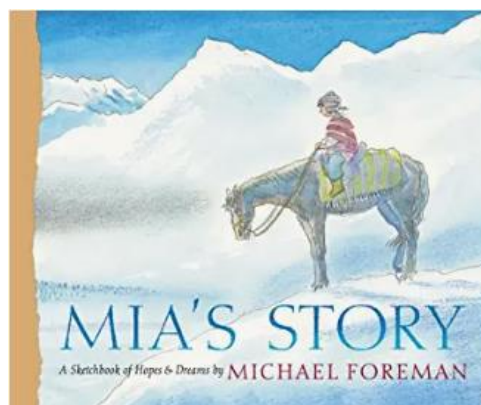
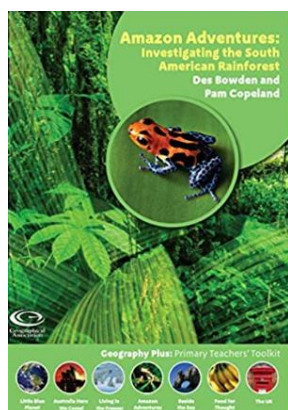
www.scribblemaps.com

www.quikmaps.com

Useful books

D Bowden (2015) Amazon Adventures: Investigating the South American Rainforest

A Humphreys (2014) The Boy who Biked the World. Part Two: Riding the Americas



Natural Resources

- Locate a quiet street near to school where pupils can study a number of different houses and their surroundings. Ask them to make a list of the different materials they can see. They might find clay bricks, slates, or Perspex roofs, paving stones, metal fences/gates, concrete posts, tarmac roads, gravel paths, glass windows and so on. Ask them to make simple field sketches or ask them to take photographs. On returning to school, pupils can print and mount the photographs in the centre of a large sheet of paper and add notes about natural resources around the edge.

Useful websites

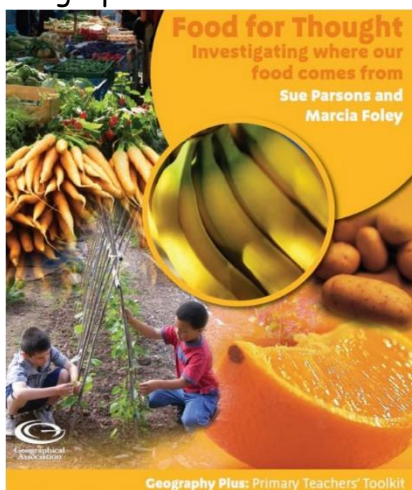
Geographical Association Food miles calculator: www.foodmiles.com

Sustainable energy projects (short video clips): www.ashden.org

Water Aid: www.wateraid.org/uk

Useful books

S. Parsons and M Foley (2012) Food for Thought: Investigating Where Our Food Comes From. Geographical Association



Trade and Economic Activity

- Make a visit to your local high street or nearby shopping centre. Record the name of each shop and note down what it sells using the following code: (N) newsagents; (F) food; (C) clothes; (D) drinks and meals; (H) household goods; (M) money services; (E) empty; (O) other. Use this information to create a bar chart showing the range of shops in your survey. Is there a pattern, and are there any obvious gaps? If possible, make a copy of a large-scale map of the area you have surveyed. Colour the plan outlines using a different colour for each category. Does the map reveal any additional information about the distribution and range of shops?

Useful websites

Christian Aid website- The Paper Bag Game:

<http://learn.christianaid.org.uk/YouthLeaderResources/pbag.aspx>

Human geography teaching resources: www.bbc.co.uk/education/topics/zx72pv4

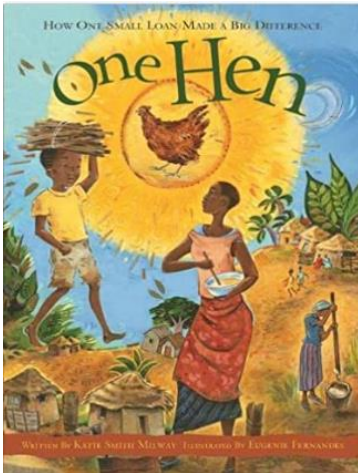
Oxfam role play resource: Find Your Way Through Trade:

www.oxfam.org.uk/education/resources/find-your-way-through-trade

Fair Trade: www.oxfam.org.uk/education/resources/explore-fairtrade

Useful books

S.K Milway (2008) One Hen: How One Small Loan Made a Big Difference



Sustainable Living

- As a class, think about your local school and local streets. Are there any places that pupils particularly value or which they think are special in some way or another? Are there any buildings or features that they think are worth preserving? Investigate whether there are any places locally that have been listed by the local council for their architectural or historical interest. Arrange a fieldwork visit so pupils can draw and make notes about special places. Link this work to an outline map of the area on returning to school.

Useful websites

Lights on Earth at night from space: <http://visibleearth.nasa.gov>

Oxfam: www.oxfam.org

Sustainable energy solutions: www.ashden.org

Worldwide Fund for Nature: www.wwf.org.uk

Worldmapper: www.worldmapper.org

Useful books

