

Unit 22 Mining on the internet

About the unit

In this unit pupils compare the impact of change in a particular economic activity on two communities: one in England and one elsewhere in the world. Pupils develop their enquiry and ICT skills by using the internet to identify and research the overseas community.

By comparing two places some considerable distance apart, pupils can begin to understand better how similar economic experiences connect communities, helping to deepen their own geographical understanding. This contributes to key stage 3 citizenship education.

The unit focuses on coal mining, but the ideas can be transferred to a study of any area that has suffered recession/decline, *eg cotton manufacture, shipbuilding*. It could also provide a model for any comparative study of industrial growth, *eg the mobile phone industry*.

Ideas and activities here may be used as extension work in other units that focus on aspects of development.

This unit is expected to take 4–7 hours.

Key aspects

Geographical enquiry and skills

Pupils will:

- ask geographical questions
- suggest sequences of investigation
- collect/record/present evidence
- analyse evidence and draw conclusions
- appreciate values and attitudes
- communicate appropriately
- use atlases/globes/maps
- use secondary evidence
- draw maps, plans and graphs
- communicate, including using ICT

Knowledge and understanding of places

Pupils will:

- locate places
- describe scale contexts
- investigate change in places
- explore interdependence and global citizenship

Knowledge and understanding of patterns and processes

Explored through:

- economic activity

Knowledge and understanding of environmental change and sustainable development

Not focused on

Expectations

At the end of this unit

most pupils will: describe and explain a range of human processes and recognise that these interact to produce distinctive characteristics in the economic geography of coal-mining areas; describe ways in which these processes, operating at different scales, create geographical patterns and lead to changes in coalfield communities; recognise how places may be linked by economic circumstances; appreciate how people's values and attitudes affect contemporary issues; suggest relevant questions and appropriate sequences of investigation of declining coal-mining areas; select and use effectively a range of skills and sources of evidence, including the internet; present their findings in a coherent way and reach conclusions that are consistent with the evidence

some pupils will not have made so much progress and will: describe and begin to explain geographical patterns and human processes and appreciate that these interact to produce distinctive characteristics in the economic geography of a coal-mining area; describe how these processes can lead to similarities and differences in coalfield communities and in the lives of people who live there; appreciate how places may be linked by economic circumstances; begin to appreciate how people's values and attitudes affect contemporary issues; suggest relevant geographical questions to investigate declining coal-mining areas; select and use appropriate skills and sources of evidence, including the internet; suggest plausible conclusions in their investigations and present their findings both graphically and in writing

some pupils will have progressed further and will: describe interactions within human processes and explain how these create distinctive characteristics in the economic geography of coal-mining areas; explain ways in which these processes, operating at different scales, create geographical patterns and lead to changes in coalfield communities; identify how places may be linked by economic circumstances; begin to understand how and why people's values and attitudes affect contemporary issues; identify geographical questions and establish their own effective sequence of investigation of declining coal-mining areas; select and use accurately and effectively a wide range of skills and evaluate critically sources of evidence, including the internet; present full and coherently argued summaries of their investigations and reach substantiated conclusions

Prior learning

It is helpful if pupils have:

- previously studied changes to the coal-mining industry in England or Britain
- familiarity with a web browser
- had some experience of using an e-mail facility
- some understanding of industrial growth and decline

Language for learning

Through the activities in this unit pupils will be able to understand, use and spell correctly:

- words relating to the internet, *eg worldwide web, e-mail*
- words relating to economic activity, *eg development, decline, recession, interdependent, local, global*
- other specialist vocabulary:
 - comparison, development compass rose (DCR), natural, economic, social, political

Reading – through the activities pupils could:

- recognise the author's standpoint and how it affects meaning

Resources

Resources include:

- a useful website at www.ilo.org/public/english/dialogue/sector/sectors/mining2.htm (contains useful information from the International Labour Organization relating to mining)
- a detailed report of the Staffordshire case study in *Global geography* (Development Education Centre (DEC), Birmingham) (pages 84–7), which also contains information about the DCR
- comparison grid and comparison genre writing frames – from the EXEL project available from the Reading and Language Information Centre at the University of Reading
- atlases
- internet access

Future learning

This unit provides a basis for GCSE units concerned with economic and development issues. It introduces the idea of a web-based enquiry, which may lead on to this type of coursework at GCSE level.

Links

The activities in this unit link with:

- other geography units – unit 11 'Investigating Brazil', unit 12 'Images of a country'
- mathematics – interpreting data and drawing conclusions
- ICT – using internet search engines; test the reliability of web data
- citizenship – considering topical issues and other people's experiences, expressing and explaining views, considering the global community

What do we already know about coal mining in England?

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| <ul style="list-style-type: none"> • to classify information • to use an atlas to locate places and determine geographical context • to select and use appropriate graphical techniques to present evidence on maps and diagrams • to describe the distribution of coalfields in the UK • to consider how and why (because of human processes) the distribution of UK coalfields has changed and is changing | <ul style="list-style-type: none"> • Ask pupils to brainstorm what they know already about coal mining and classify the information. • Provide pupils with a list of maps and tables to find out about the distribution of coalfields and changes in coal production in recent years. Ask them to transform this information with the aid of an atlas, and to identify the relevant human processes responsible for the changes. | <ul style="list-style-type: none"> • describe and explain the distribution of England's coalfields • interpret drawn graphs/diagrams of recent changes in coal production |
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How have the changes in mining affected a locality?

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| <ul style="list-style-type: none"> • to select and use appropriate graphical techniques to present evidence on maps and diagrams | <ul style="list-style-type: none"> • Give pupils a time line of coal-mine closures in an area of one of England's coalfields, and then add subsequent changes in the wider area that pupils are studying. Ask pupils to produce an annotated map of this region. | <ul style="list-style-type: none"> • draw an annotated map of coal-mine closures • understand how coal-mine closures affected the local economy | <ul style="list-style-type: none"> • Citizenship: this activity provides pupils with an opportunity to reflect on topical political, spiritual, moral, social and cultural issues, problems and events by analysing information and its sources, including ICT-based resources. |
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Can we compare our experience with that of others?

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| <ul style="list-style-type: none"> • to ask geographical questions and suggest appropriate sequences of investigation • to use secondary sources of evidence, including the internet • to consider the effects of changes in coal mining on selected places • to appreciate that other localities may have experienced similar difficulties | <ul style="list-style-type: none"> • Ask pupils to use the internet to carry out a comparative study of changes in the mining industry, by searching for and exploring suitable websites about the mining industry in another locality. • Suggest to pupils that they post a message by e-mail on any appropriate website to enquire about the impact of change in the mining industry on people in their area. • Ask pupils to write a paragraph to compare the decline in employment and its effects on the two areas. Pupils may need reminding of the words they should use in comparative writing – see unit 11 'Investigating Brazil' for more details. | <ul style="list-style-type: none"> • acquire the information they need for their enquiry • write a comparison of employment decline and its effects in coal mining, in two areas | <ul style="list-style-type: none"> • It is important for pupils to realise that web-based resources are written from specific perspectives and they should visit the mining company, local population (where possible) and environmental sites. For more information about analysis of text for interest, bias and implicit values see unit 12 'Images of a country'. |
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Learning objectives	Possible teaching activities	Learning outcomes	Points to note
Pupils should learn:		Pupils:	
How can we investigate this further?			
<ul style="list-style-type: none"> to make a comparative study of two areas in greater depth to communicate in ways appropriate to task and audience 	<ul style="list-style-type: none"> Ask some pupils to select suitable responses from the internet and to share these with other pupils. Pupils may be fortunate to receive both generalised and personal responses. Suggest to pupils that they share some of the internet responses with former coal-mine workers who have had similar experiences and, if possible, invite members of the local community to share their experiences with pupils. Ask pupils to write up their findings about their local area in a similar format to the e-mail received and to e-mail these to their e-mail correspondents. 	<ul style="list-style-type: none"> select appropriate responses to share with local people replicate the format of a received e-mail 	<ul style="list-style-type: none"> These personal reports provide accessible information for pupils, making global geography more meaningful.
What is this area like, and how does it compare with our own area?			
<ul style="list-style-type: none"> to analyse and evaluate evidence 	<ul style="list-style-type: none"> Ask pupils to use an atlas to make statistical comparisons between the two areas being investigated using five sets of data, <i>eg gross national product (GNP), population, area, etc</i>, chosen either by pupils or by the teacher. Help pupils to make sense of the statistics through class discussion. <i>What do these figures mean?</i> Discuss with pupils the nature and integrity of the information. <i>Where did it come from? How reliable is it?</i> 	<ul style="list-style-type: none"> use and interpret statistical data explain that internet information will reflect its sources and authors' standpoints 	<ul style="list-style-type: none"> ICT: this activity provides opportunities for pupils to consider the reliability of internet data and the problems/dangers of such free access. Mathematics: interpret data and draw conclusions. Language for learning: this activity provides an opportunity for pupils to build on work on assessing authors' standpoints from years 7 and 8. (For more detail see unit 12 'Images of a country'.) Pupils' attention can be drawn to similar issues with web-based resources, as discussed earlier (in section 3).
How is their experience similar to our own?			
<ul style="list-style-type: none"> to analyse and evaluate evidence to compare two sets of information and suggest reasons for links between them 	<ul style="list-style-type: none"> Divide the class into two groups, one half to consider information received over the internet and the statistical data analysed by the class, the other to consider the information from the local inhabitant(s). Suggest to pupils that they may use a grid to compare the information, and that it should include such questions as <i>Where does the person live? How old are they? What has been a positive effect of mining, and what has been a negative effect? What changes have they seen in their area? What is it like to live there now?</i> Ask pupils to use the completed grid to write a paragraph about how changes in one industry can affect people's lives/environment in different parts of the world. 	<ul style="list-style-type: none"> explain how places can be linked through people's similar experiences make a comparison of events/experiences in two areas describe and explain how change within one industry can affect people's lives and environments in different parts of the world 	<ul style="list-style-type: none"> Citizenship: this activity provides pupils with an opportunity to use their imagination to consider other people's experiences and be able to think about, express and explain views that are not their own.

Learning objectives

Pupils should learn:

Possible teaching activities**Learning outcomes**

Pupils:

Points to note**How is it different?**

- to analyse, evaluate and draw and justify conclusions
- Ask pupils to make an analysis of the similarities and differences between the two communities and of the views of the people living there. Lower-attaining pupils may need more structured support for this activity.
- make an analysis of change in two areas

What do I think about this?

- to appreciate how people's values and attitudes, including their own, affect contemporary social, environmental, economic and political issues, and to clarify and develop their own values and attitudes about such issues
- Provide pupils with copies of the DCR. Using either single words or phrases, ask pupils to summarise and review their understanding of the effects of the changing coal-mining industry on two areas. The completed compass rose diagrams could be displayed around the teaching room to enable pupils to see how their peers interpreted the information.
- Ask pupils to use all they have learnt to plan and write an article for the *Coal Miners' Newsletter* or prepare a talk for a radio programme in which they are to present accurate information about changes in the industry and to write sensitively about their impact on the lives of individuals and communities. Weaker writers might need more structured support.
- draw and justify conclusions about how events in a declining industry and subsequent experiences affect people's lives and may affect future attitudes and values
- Citizenship: this activity provides an opportunity for pupils to reflect on the world as a global community, and the political, economic, environmental and social implications of this.
- Citizenship: pupils could use their imaginations to consider other people's experiences and think about and express views that are not their own.