

Who Mines?

Land Use For Mineral Extraction

Teacher notes – Worksheet with suggested discussion points

Where the worksheet fits in

This worksheet is intended to compliment A level studies on the topic of land use as a mineral resource. It provides students with opportunities to develop their citizenship skills, to consider which interest groups could be affected by proposed mineral extraction sites, their rights and responsibilities and how they are be represented in the planning process, at a local and global scale.

Curriculum Links

Environmental Science

AQA Environmental Science, A/S Module 2 – The lithosphere 11.4 Land Resources: Land Use.

Geography

AQA Geography (B), A2 Module 4 – People and the environment: Conflicts over the use of a resource – attitudes of different groups of people to the use of the resource, recognition that some people benefit, others may lose, when the conflict is resolved.

Edexcel Geography (B), A2 Unit 4 – Global challenge – The natural environment: Global eco-futures, 4.6 How are individuals and organisations playing an increasing part in ecosystem management? Consideration of the roles people play as decision makers as individuals, group members, or in private companies or public organisations as scientists, managers, etc.

OCR Geography (B), A2 Module 2692 – Issues in Sustainable development – how are decisions about the use of resources and the environment made and how do the values of those involved influence them?

WJEC Geography, A2 Synoptic unit GG5 – Sustainable development – C: The natural environment, 3. Many organisations are involved in decision-making in this natural environment (identification of the contrasting aims of the different interest groups).

Introduction

Raw materials mined and quarried from the Earth underpin everything we do and everything we need to survive and enjoy life. As mineral extraction will always represent a change to the environment, there will be an inevitable impact upon the local environment and the people that live and

work within it. The community can potentially be affected by all possible impacts associated with mineral extraction, and although the effects of most impacts can be reduced, some will not be removed completely. This can lead to conflicts between the different interest groups associated with the environment subject to extraction.

As essential industries, it is vital that quarrying and mining companies ensure that good relations are held with the local community and associated interest groups. In order to reduce the impact upon the local community, strict regulations and planning processes exist that must be followed when considering a quarry or mine proposal, and most, if not all, follow codes of good practice. It is important for students to gain an appreciation of the vital role of the quarrying and mining industries and understand the different mechanisms used to achieve this.

Learning outcomes

Students will:

- Develop an understanding of the mechanisms used to resolve land use conflicts
- Consider the rights and responsibilities of different groups of people
- Be encouraged to empathise with viewpoints that are not their own
- Communicate clearly the results of their research and explain its significance

Suggestions for use

Taking a local issue as a starting point

Links

www.planning.odpm.gov.uk

<http://www.yorkshiredales.org.uk/12quarrying2001.pdf>

<http://www.dartmoorsociety.com/debate.chinaclay.htm>

<http://www.pupilvision.com/uppersixth/topleypike.htm>

<http://www.peakdistrict-nationalpark.info/studyArea/factsheets/03.html>

Who mines? – Land use for mineral extraction

Interest group	Interests/Concerns	Assurances
Quarry operator	Need for supply of raw materials, e.g. to build new hospital buildings/local housing/improved or new roads	Legislation Planning Policy Process
Local residents	Loss of amenity, increase in dust, noise, fumes and traffic, damage to property, lowering of property value, visual intrusion, employment opportunities, local economic benefits	Legislation Planning Policy Process Good practice
Local wildlife groups	Loss of wild area and disturbance to remaining wildlife, resulting in loss or reduction of habitats and wildlife in the immediate and surrounding area to proposed site	Legislation - Planning Policy Process EIA Good practice by quarry operator
Local business owners	Increase/decrease in business, damage to property	Legislation Planning Policy Process Good practice
Landowners	Lowering of land value, damage to land (pollution, dust, fumes)	Legislation Planning Policy Process Good practice
Environmentalists	Degradation of wild area and surrounding environment, possible pollution, loss of wildlife and habitats	Legislation - Planning Policy Process EIA Good practice by quarry operator
Local council	Economic benefits, employment, loss/gain of amenity	Legislation Planning Policy Process Good practice

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Student Worksheet

Who mines? – Land use for mineral extraction

The extraction of minerals and aggregates has an inevitable impact upon the local environment and the people that live within it.

In order to reduce the impact upon the local community, strict regulations and planning processes exist that must be followed when considering a quarry or mine proposal.

- 1) Research the planning and decision making processes for quarry proposals (www.goodquarry.com; www.gpa.co.uk)
- 2) Imagine a quarry/mine has been proposed to be located near your school/college, or in a National Park nearby.
- 3) In groups, consider what interest groups will be affected, what their concerns might be and how much influence they have in the decision making process. Describe how each interest group is represented by the planning and decision making processes, and what assurance they might request from the quarry company (e.g. legislation, good practice).
- 4) Consider what interest groups will be affected if the proposed quarry/mine was located in the forests of Amazonia.
- 5) All groups discuss – who would benefit and who would lose if the quarry gets permission? *Vice versa*.

Examples of interest groups might include the quarry operator, local residents, wildlife groups, local business owners, landowners, environmentalists, and local council.

Interest group	Concerns	Assurance

Who mines?

Interest group	Concerns	Assurance