



**Teacher Guide Notes -  
A Case for the Countryside**

**Cross Curricular**

**A Hole lot of Fuss**

**Tarmac** 

**This first exercise is a multi-disciplinary activity intended essentially to aid the transition from primary to secondary, by facilitating an introduction to subsequently more narrowly based subject teaching.**

## INTRODUCTION

The notion of cross-curricular study can be perceived as an ideal which is rarely attained, often because the resources to support such activity are unavailable. The unit which follows is a multi-disciplinary activity intended, essentially, to aid the transition from primary to secondary school. By taking a topic which requires the application of different subject knowledge to achieve understanding and a group approach for successful delivery, this activity should help bridge the change in teaching and learning styles between primary and secondary phases. In addition to gaining a greater awareness and appreciation of a controversial environmental topic, pupils will have an opportunity to develop their personal and social skills, such as presentation, communication, teamwork, time management, research, problem solving and decision making.

Although this unit is intended for use by 11-12 year old pupils, there is no reason why it should not be used with older groups where teachers are looking for resources for cross-curricular projects. The theme is one which should be of interest to everyone and some of the support materials may be more appropriate for an in-depth study by older pupils/students.

## CONTEXT

This unit enables pupils to use subject knowledge in a multi-disciplinary activity. Within the overall Countryside theme of this resource, 'A Hole Lot of Fuss' looks at a specific aspect of land management - the extraction of aggregates for commercial benefit.

## THE ACTIVITY

The exercise is based on one of the farms covered in this resource where geological conditions are appropriate for a sand/gravel pit to be sited.

Although it is most unlikely that exploitation would happen, the exercise has been developed with the support and co-operation of the farm owners, Tarmac Quarry Products Ltd, and the various agencies which would normally be involved in a planning application. Dates of surveys and on correspondence are records of actual activity which occurred i.e. between 1996-1997. For the purposes of this exercise, it is a 'real' case study, appropriately resourced.

Eastrop Farm in Wiltshire has a pocket of sand and coral rag on the south side of the farm near the B4000 which may be suitable for extraction.

#### STARTING POINTS/STIMULI

Consideration of what aggregates are essential in pupils' lives - roads, buildings, etc.

Section 1 of the Student Information Sheet on aggregate extraction to reinforce significance.

Atlas and maps of Highworth and Eastrop Farm to establish location. Also look at the multimap web site - [www.multimap.co.uk](http://www.multimap.co.uk)

If there are local gravel/sand pits, pupils may consider similarities between their own area and that of Eastrop Farm.

#### FOCUSED PRACTICAL TASK

The overall task, to be shared by groups in the class, is to prepare a planning proposal for gravel extraction from Eastrop Farm, for submission to the County Council Planning Committee. Local residents are notified of the proposed application and prepare a response. Members of the Planning Committee make their decision on the basis of the evidence presented to them.

To carry out this task, the class can be split into three 'home groups':

- The 'Extractors' - Includes the aggregate company with its professional advisers and the farm owners
- 'H.A.G.' - 'Highworth Against Gravel' - includes residents such as Parish councillors, school teacher, shop keepers, golf course owner and wildlife conservationists, ramblers etc.
- County Planning Committee - Includes Country Councillors and Council Officers responsible for planning consideration.

Members of all three groups will need to have a thorough understanding of aggregate extraction and its implications, to play their roles effectively. Areas they will have to understand include:

- aggregate extraction
- agriculture
- geology
- conservation - wildlife, pollution
- transport
- market opportunities
- archaeology
- land restoration

Within each 'home group' members can agree to research one of these areas. 'Area groups' can be formed where pupils from different 'home groups' can help each other with research and sources of information.

The information gathered is fed back and is used in each 'home group' to prepare the case for or against, or to make the final decision. Within each group, members may adopt roles. Each one has a role description card.

Finally, the Planning Committee meets to hear the presentations and reach a decision on the application.

## RESOURCES

OS Map 1:50,000 Landranger 174 Newbury, Wantage. Use the OS website - [www.ordnancesurvey.gov.uk](http://www.ordnancesurvey.gov.uk) - to view example of map. Select the GET A MAP button. Select Landranger and then select number 174 from the map.

Student Information Sheet:

1. Section 1 - Aggregate Extraction.
2. Section 2 - Agricultural Land Classification
3. Section 3 - Restoration.
4. Section 4 - Environmental Concerns.
5. Section 5 - Community Forests.

6. Section 6 - written responses to proposed planning applications from:

English Nature

Wiltshire Wildlife Trust

Wiltshire County Council - Archaeology; transport; footpaths

DEFRA

7. Section 7 - Flow chart of planning process

Maps - Student Maps and Aerial Photography document:

- Map 1 - Position of Eastrop Farm
- Map 2 - Eastrop Farm in 1997
- Map 3 - Stages of Extraction on Eastrop Farm Site
- Map 4 - Geological Map of Eastrop Farm - overlay
- Map 5 - Contour Map of Eastrop Farm area - overlay
- Map 6 - Transects to demonstrate sight lines
- Map 7 - Existing vegetation and hedgerows at Eastrop Farm - overlay
- Map 8 - A restoration proposal: Eastrop Farm Site
- Map 9 - Agricultural land classification for extraction site
- Map 10 - Archaeological remains on Eastrop Farm - overlay
- Oblique aerial photograph of Eastrop Farm to show proposed extraction site

Draft completed planning application

Student Activity Sheet including role description information

## CURRICULUM LINKS

- English - reading, writing, listening and speaking
- Mathematics - area and volume of extraction  
- costing - extraction, transport, markets
- Science - life processes and living things
- History - settlement of area
- Geography - skills  
- environment  
- economic  
- social
- Art and Design - artist's impressions of site - before, during and after
- Design and Technology - extraction and removal by mechanical methods
- IT - spreadsheets for costs, projections for extraction  
- use of CAD for restoration designing
- Cross-curricular themes - EIU, Environment, Citizenship, Health

## KEY EXPERIENCES

- Developing an informed awareness of an important environmental issue.
- Developing subject based knowledge in a cross-curricular context.
- Developing a range of personal and social skills through working in two different groups.