

The Ancient Tree Hunt

KS3 Geography

PLACE

TEACHERS NOTES

Most schools have received from the OS over the last three years free copies of maps requested by the schools. Schools have usually started with their local area at 1:25,000. scale. There should therefore be a good supply of maps local to schools.

If not then there are various sites to download maps

- a) **www.emapsite.com** This is a commercial company but is allowing schools to download without cost maps of various types. This will stop in July 2008. 1:10,000 is the best one here. The school has to register (free) and has to have the right GIS programme to accept the download but these programmes can also be downloaded free.
- b) Contact the Authority Liaison Officer for your local authority who will advise the school on what map data they can give you. To find out the contact details of your local ALO contact telephone: 08456 05 05 05
- c) A regional network if it exists for your area or the National Grid for Learning (NGFL Cymru) <http://www.ngfl-cymru.org.uk/> The Yorkshire and Humberside Grid for Learning (YHGfL) has coordinated a new regional GIS free to all schools. The website is <http://loc8.yhgfl.net> User name is: **yhgfl** and password is **gis**. This site for that area has various map scales available, land use maps and aerial photos that can be superimposed on the maps.
- d) Ordnance Survey website and click on “get a map.” Here you can download free and print a map of the area you want.

Aims:

To understand some physical and human characteristics of a real place local to the pupils

To challenge pupils' understanding of their neighbourhood

To undertake fieldwork

To introduce pupils to the work of the Woodland Trust

Skills – Understanding places, environments and processes

1. describe and explain physical and human features
2. explain the causes and effects of physical and human processes and how the processes interrelate

Skills – Locating places, environments and patterns

2. use maps, plans and imagery of different types and scales and ICT to interpret and present locational information

Range

- carry out fieldwork to observe and investigate real places and processes
- study tomorrow's citizens: issues in Wales and the wider world of living sustainably and the responsibilities of being a global citizen
- ask and answer the questions

Resources:

OS Maps

Compass

Clinometer to measure slope angle

Tree identification guide.

Google Earth downloaded (to see photo of trees mapped)



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These sheets have been designed to be shared. Feel free to photocopy and provide to colleagues. The Woodland Trust is the UK's leading woodland conservation charity dedicated to the protection of our native woodland heritage. www.woodlandtrust.org.uk www.AncientTreeHunt.org.uk

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Starter/Connect:

statements:

**I THINK THAT TREES ARE IMPORTANT
AND WE SHOULD TRY TO STOP
THEM BEING CUT DOWN**

**I THINK THAT TREES ARE NOT THAT
IMPORTANT AND IT DOES NOT MATTER
IF A FEW ARE CUT DOWN**

Ask pupils to stand between the two labels according to what they think. (This exercise can be repeated after the lessons to see if their opinions have changed)

Picture of an ancient tree with propped branches – one from West Midlands from www.woodland-trust.org.uk or on their site go to Nationally famous trees and click on the **Major Oak Nottinghamshire** – the newer photo. Do **5W's** for either photo. This is where you ask of the photo “*What, Where, Why, Who, When*”

Connect – ask the pupils “Hands up if you have ever climbed a tree?” Why? When? Where?

(Contact your local authority for information on protected trees in your area). Hedges may also be protected because some are boundaries that can date back a few hundred years eg a parish boundary. To date a hedge, measure a 30 m stretch and count how many different species of woody bushes there are. Each species represents about 100 years of growth.

Activity – pupils brainstorm uses of trees and write in the tree outline on the worksheet.

Fieldwork:

Introduce the fieldwork – you will need to address issues such as ownership, access and health and safety

We are going to look for and record on a map – hedges, wood areas, individual trees on their own, any trees we think are ancient.

To identify an ancient tree – go to website

www.ancient-tree-hunt.org.uk click on ancient trees, then click on *What are ancient trees*, scroll to the bottom and click on *How to recognise ancient trees*

What is an ancient tree? (Worksheet info) Go to ancient tree website and search for ancient trees in your region. Write down where they are – where is your nearest one?

Not many are mapped so we hope to find one in our local area, or some old hedgerows and some trees that are important to you in some way.

Ask 4 pupils to stand in a ring holding outstretched hands in a circle. This would be the girth of an ancient oak. More measurements are on the website above.

You can enter the location of any of your relevant trees on the Ancient Tree web site. Follow the instructions to locate your tree/s on a map and to enter details (girth, height of girth, tree type, is there public access and grid reference).

You will need the OS map for your local area – 1:25,000 or 1:10,000 or 1:2,500. If you have access to older maps to show changes that would be useful. If you know of any old parks or country estates in the local area then these are the best bet for oldest trees. Names on old features can help – eg old farm or road name.

When pupils map features you can discuss the use and development of a key. Eg tree type, hedge, slope angle, use of land.

The physical characteristics can be a casual factor in the type of land use so pupils will need to record in table form height of the land, slope angle described and/or measured as an angle, aspect of slope (use a compass to record which compass direction the slope is facing), drainage (you can pour a fixed amount of water into a cylinder placed on the ground and record the time taken for the water to drain into the soil), soil type (simple analysis eg with a garden PH probe or



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simple test from school science labs. If ph is high then it is acid soil), litter content (if pine needles then it is an acid litter) litter thickness (measures down to surface of soil with a ruler)etc.

Follow up work:

You can include the idea of nutrient cycling.

Pupils also need to record human characteristics eg farm use, buildings nearby, encroaching buildings, future plans, current use of the trees (leisure, farm use, human abuse etc)

In this way the trees become a focus for understanding the Geography of the local area.

Other follow up work could include:

- 1) the production of a land use map of the local area focusing on trees
- 2) discussion of the production of a common key and symbols
- 3) an assessment of links between physical characteristics and tree type
- 4) an initial appreciation of the nutrient cycle
- 5) an appreciation of how past landscapes can influence today's landscape.

Plenary:

Ask pupils to write a poem/story/rap about the trees. This is to bring out their geographical imagination and to emphasise the learning. You could give them criteria eg the use of certain words/terms, eg

*Two trees that we saw were the ash and the oak
They were mighty big – and that ain't no joke
The birds in their nests get a really cool view
And if I want to climb I can join them too*



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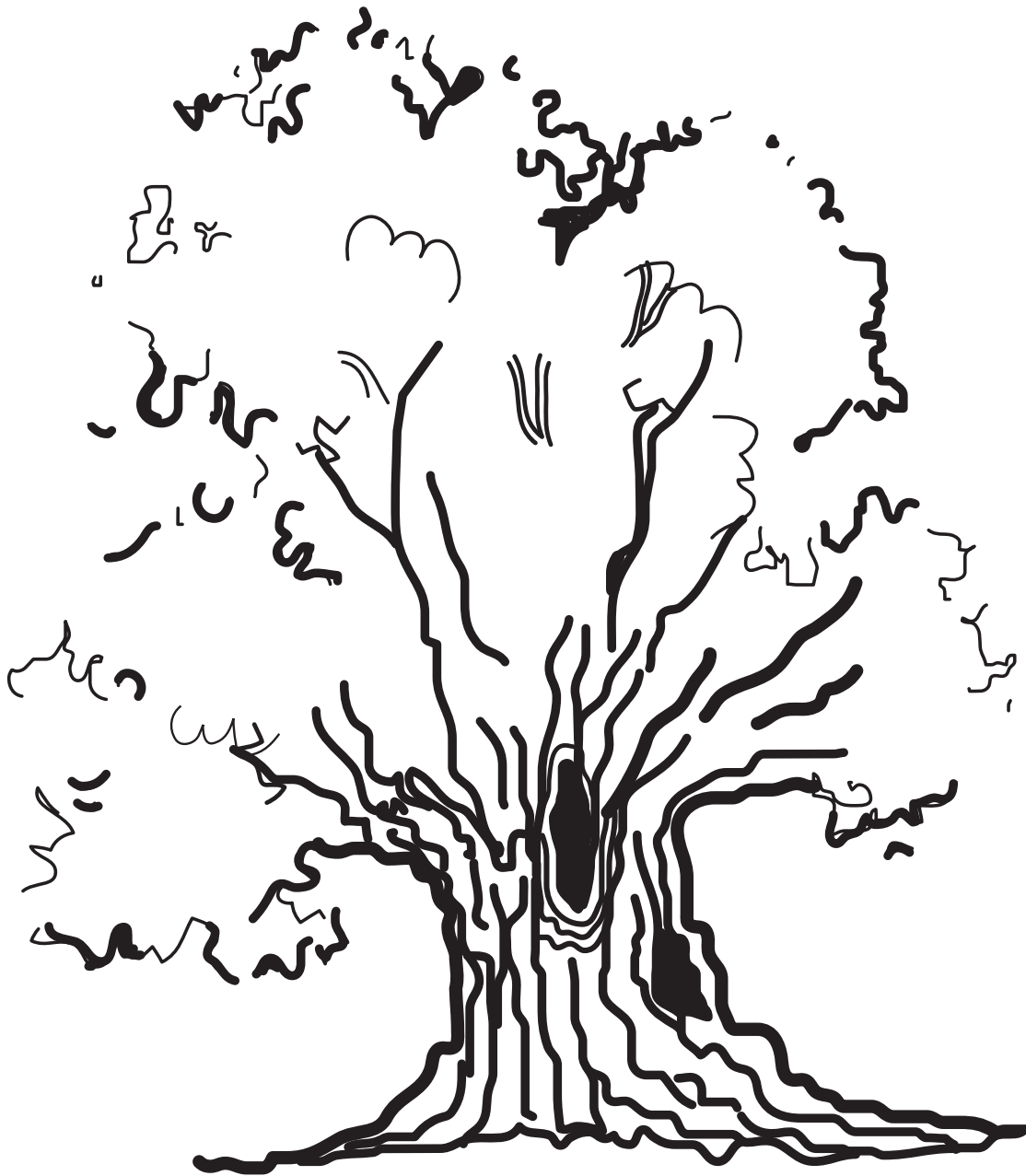
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STUDENT SHEET

1. Write into the tree outline all the uses of a tree you can think of – think about how you have used trees, past uses, sorts of creatures that use trees etc.



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STUDENT SHEET

2. Fieldwork:

You are going to do some fieldwork where you will observe and record trees. In particular you are going to see if there are any **ancient** trees in our local area. There may be none but you have to be ready to spot one.

3. What is an ancient tree?

The trunk is very wide (called its girth) and it is not very high until the branches start. If four of you hold outstretched hands in a circle then that is the girth of an ancient oak tree. Other tree types may be less hands than this. The website www.ancient-tree-hunt.org.uk has more details.

4. Follow up work

You are now going to transfer all the information you recorded onto a neat base map. What words, colours and symbols did you use in the field? Decide on a common key

to show some or all of the features you recorded.

Are there any links between the physical features and tree type?

5. Nutrient Cycle

All parts of trees store nutrients. These keep it healthy and help to make it grow. When branches and leaves fall to the ground they rot (decompose). The nutrients in them are released and enter the soil and so help the soil to be fertile. The roots of the tree take up these nutrients so that it can grow and replace leaves.

Draw a circular diagram with arrows to show the nutrient cycle. Think about the labels you would put on it.

6. What I have learned

Write a short poem or story or rap about what you have found out.

Recording Sheet								
Site location	Height (metres)	Slope angle	Aspect ie NE	Drainage	Soil Type	Litter	Girth (metres)	Tree name