Here is a larger map. Write down the four-figure grid references for the following features:

1. The village of Barham ________
2. The village of Farthing ________
3. The village of Longton ________
4. Round Wood ________
5. Long Wood ________
6. The Windmill __________
7. Fallow Hill __________
8. The Lake __________
9. Mill Farm __________
10. Willow Farm __________

Many maps have a grid of lines printed over them. The lines go across and down. Each line has a number. These numbers can be used to show the position of something on the map. We do this by finding the grid reference.

How to find a four-figure grid reference:

1. Choose the square you want to find the reference of.
2. Find the bottom left corner of the square.
3. Start at the bottom left corner and look up the line until you reach a number. This is the first number. The first number in this example is 42.
4. Start at the bottom left corner and look across until you reach a number. This is the second number. The second number in this example is 13.

5. Put the two numbers together to find the grid reference – 4213.

Remember, always put the number from the top or bottom of the map first, and the number from the side of the map second.
Set 1: Geographical Skills

Poster 3: 4-figure Grid References

TEACHER’S NOTES

National Curriculum

This poster concentrates on the skill of using four-figure grid references. It is particularly appropriate to pupils achieving level 4.

Activities

Four-figure grid references are the easier of the grid references. However, they are considerably more difficult than letter/number co-ordinates.

The main difficulty is that the numbers are the end of, and refer to, the lines of the grid themselves, rather than to the columns in between. There are several ways of remembering to look at the numbers across before the numbers down - always looking to the left first. If you forget to reverse the order, the result can be disastrous! At first the pupils should be taught to look at the end numbers of the grid, write the row number and then the column number. The order of the names and numbers is very important.

It is very important to stress the names of the numbers at the edges of the grid. It is not necessary to know these names to be able to give a reference. You may, however, decide to mention them to some pupils.

It is very important to stress that the numbers at the top and bottom are given before those at the sides. There are several ways of remembering to look at the numbers across before the numbers down - always looking to the left first. If you forget to reverse the order, the result can be disastrous! At first the pupils should be taught to look at the end numbers of the grid, write the row number and then the column number. The order of the names and numbers is very important.

The map exercise is a good way to start to develop the skill of giving a four-figure grid reference. Pupils can draw arrows onto the map if they need to. The answers are: 1 9837 2 0233 3 0337 4 0136 5 0138 6 9733 7 0032 8 9934 9 9833 10 0335

Extension activities

One way of practising four-figure references is to play noughts and crosses – as long as the pupils are confident enough. Each player/team marks either the top or the bottom of the grid, or the square is already occupied, the player/team loses that go. You may prefer them to have another chance.

A local 1:50 000 Ordnance Survey map is ideal for developing the skill. Pupils can locate the square in which their school or home is located, as well as other features. This method is ideal for locating villages on a rural map.

The map below is a more detailed version of the Treasure Island map from Poster 2, with grid squares numbered, instead of a number and letter reference system. It can be used to practice four-figure grid references on material that the pupils may already be familiar with.

Cross-curricular links

Maths

Grid and grid references.

History

Study the local area especially sites of antiquity.

English

Use an Ordnance Survey map to identify locations and write a story based around them.

CROSS-CURRICULAR

In the house and up the stairs
The weather changes from day to day. We need to be able to measure different aspects of the weather and keep records of what we have found.

We need to be able to measure different aspects of the weather and keep records of what we have found.

Use the two charts given above to record rainfall and temperature over a month.

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<thead>
<tr>
<th>Date</th>
<th>Rainfall (mm)</th>
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<table>
<thead>
<tr>
<th>Date</th>
<th>Temperature (°C)</th>
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The map shows how much rain falls in different parts of Britain. This is the average amount which falls in a year. Find your local area on the map and key it will show how much rain falls in different parts of Britain. Which parts of Britain are wetter or drier than your area?
An example of a completed weather log follows.

**Rainfall distribution map**

The pupils are given a simple distribution map which once coloured in correctly, will give a general picture of the average rainfall in different parts of the British Isles. This idea can be adapted to record the temperature as well as rainfall.

**Cross-curricular links**
- **Maths**: Plotting graphs and charts.
- **Science**: Explanation of the sources of rainfall, wind etc.
- **Design and Technology**: Making simple weather measuring equipment.

**Activities**

This poster follows on from the previous weather poster in which pupils were observing the weather and keeping a record using a chart. In this work, the pupil is encouraged to measure aspects of the weather using simple equipment. This may be purchased, or made – perhaps by the pupils themselves.

**Extension activities**

- **Rainfall**: A diagram of a simple rain gauge follows. It has many features which are designed to ensure accuracy. However, almost any transparent cylindrical container is good for measuring small amounts of rainfall. The gauge should be located where it is not sheltered from rain, where it will not catch drips from trees or buildings, and not be interfered with.

- **Temperature**: Thermometers are relatively inexpensive and most pupils will learn quickly how to use them. Air temperature should always be taken at the same time of day. However, the instrument was reset last night and the temperature meter needs to be heated up to room temperature. When the local time is 9.00 am, the temperature should be read and recorded in the thermometer. This idea can be adapted to record the temperature and rainfall recorded during a week, or month. The main problem is that readings will probably not be taken at weekends.

- **Climate graphs**: The average monthly temperature and rainfall for an area is normally shown on a climate graph. This comes in two parts: temperature is shown by means of a line graph and rainfall is shown by means of a bar graph. However, this is complicated for pupils and quicker and easier to plot rainfall is shown on a simple right angle graph. This is normally shown on a climate graph. Temperature readings are already incorporated in most graphs and are plotted using a bar graph. It is probably easier to plot them separately.

This idea can be adapted to record the temperature and rainfall recorded during a week, or month. The main problem is that readings will probably not be taken at weekends.