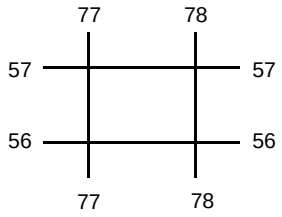
# How to (and why) … do Grid References

A wildlife record is only useful if we know **WHERE** the animal or plant was seen.

*How to …*
Look at an OS map. As well as the woods and towns and rivers there is also a grid of fine lines. These have numbers at their ends around the edge of the map. The lines are one kilometre apart, one set with lines running north to south with numbers along the top and bottom of the map, one set with lines running east to west with numbers along the left and right hand side of the map.

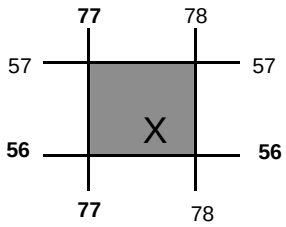



The lines that run north to south with the numbers going up as you move east are called **eastings**. The lines that run east to west with the numbers going up as you move north are called **northings**. Eastings come before northings in a grid reference.

**Four Figure Grid References**

For a Four-figure grid reference: put your finger on the map on the place you want to find a reference for – we'll call it point **X**. Trace your finger to the left of where you are until you hit a line. Make note of the number at the top and bottom of this line – in this case its **77**.

Then trace your finger down to the next horizontal line and make a note of the number of the left and right end of this line – in this case its **56**.




**7756** is a four-figure grid reference representing a one-kilometre square on the map. BUT four-figure grid references are not very useful. Because of the increasing computerisation of mapping, and the increasing accuracy that we work to, more and more people who come to us for data need more accuracy. The next stage up is a six-figure grid reference.

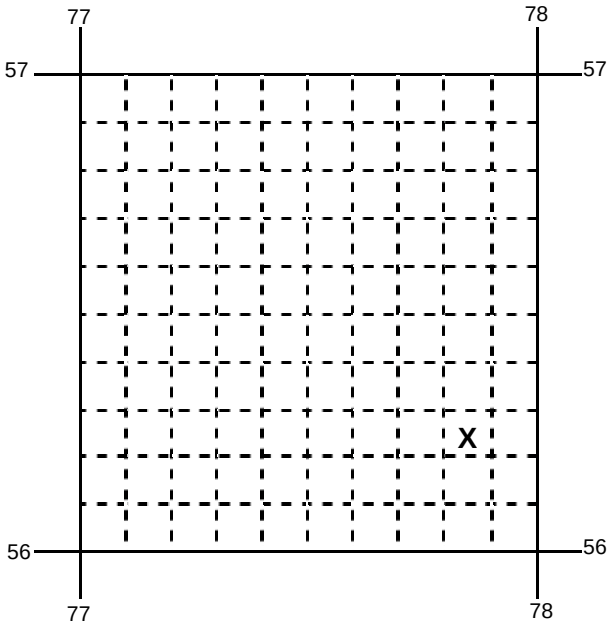
*See next page…*

**Six Figure Grid References**

To turn your four-figure grid reference into a six-figure: imagine that the 7756 square is divided up into a finer grid, with the horizontal and vertical lines divided up into ten each.

Find your feature again. Estimate how many tenths your object is from the line to the left – my 77 line – say its 8. So the first part of your six-figure grid reference is **778**.

Then, estimate how many tenths up the map your object is up from the line below - my 56 line – say 2. So the second part of your six-figure grid reference is **562**.




And to show where in the UK you are, you need two letters (usually shown in the key). In the Bristol Region we are lucky – all the old Avon fits into ST.

So the full thing is **ST 778562**.

*And why to …*

So why do we like you to give us grid references?

We always say we need four things to make a record. We usually say:

Who, what, where, when

– because it rolls off the tongue.

But we should really say;

Where, what, when, who

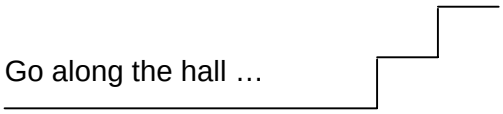
because both our paper filing system and the way we manage and display our data using GIS software rely on where the record is in Avon. We can't display a record on the computers until we know **where** it was made and we can't file a paper record unless we know **where** it was made.

**We *have* to have a location to put a dot on a map,** and the method we use is **grid references**.

If there isn't a grid reference on a record we have to work it out. It takes time, and it isn't always straightforward. Sometimes the description of the location isn't totally clear!

Ideally, every record that comes in would have a grid reference and a location name or sketch map. Then we can cross-reference them – check that the grid reference matches the location and vice versa.

Remember to read the numbers across the map first (eastings) and then the numbers up the map (northings)



Go along the hall …

… and then up the stairs!