SUBJECT: Environmental Studies

UNIT: Year 7- Navigation



The History of UK Maps

- The earliest maps were simple drawings to show people where places were.
- In the 1700s, the British Army started making maps to plan defences against invasion.
- This led to the creation of the Ordnance Survey (OS) in 1791 – the organisation that still makes detailed maps of the UK today.
- Early OS maps were hand-drawn and showed hills, rivers, towns, and roads.
- Over time, maps became more accurate and included more detail, like footpaths, landmarks, and symbols.
- Today, we still use paper OS maps, but also have digital maps and satellite images on phones and computers.

How to Use a Compass

Key Features of a Compass

- Baseplate the flat plastic part you hold.
- Direction of Travel Arrow shows the way you need to go.
- Rotating Housing (Dial) circle you can turn with 0–360° marked on it.
- Magnetic Needle always points to magnetic north (the red end is north).
- Orienting Arrow/Lines used to line up with the map.

How to Take a Bearing

- Find your location on the map and decide where you want to go.
- Place the compass on the map so the edge joins your start and end points.
- Turn the dial so that the orienting lines match the north lines on the map.
- Hold the compass flat in your hand and turn your body until the red needle lines up with the north arrow in the housing.
- Follow the direction of travel arrow this points the way you need to go.

How to Make a Natural Compass

Method 1 - Floating Needle Compass

You will need: a needle/pin, a leaf or small piece of cork, and a bowl of water.

Rub the needle on fabric or hair (this magnetises it).

Place the needle carefully on the leaf/cork. Float it on still water – the needle will turn and point North–South.

Method 2 – Using the Sun

The sun rises in the east and sets in the west. At midday, the sun is roughly south in the sky (in the UK).

Method 3 – Using Shadows

Place a stick upright in the ground. Mark where the tip of the shadow falls (this is west).

Wait 15 minutes and mark the new shadow tip (east).

Draw a line between the two marks – this shows East–West.

What Makes a Good Map?

A good map is clear, accurate, and easy to read. It should help people find places and understand the landscape.

Key Features of a Good Map

- Title tells you what the map shows.
- Key/Legend explains the symbols used.
- Symbols pictures or signs to show features (e.g. church, campsite, school).
- Scale shows the relationship between distances on the map and real life.
- North Arrow shows which way is north.
- Grid References numbers that help you find exact places.
- Labels names of towns, rivers, roads, or landmarks.