

How to read a topographic map (page 1)

The legend

On topographic plans or maps, you should always look for:

- The name of the area or piece of land mapped, and/or the name of the type of project for which it is used;
- The exact location of the piece of land;
- The name of the person or people who made surveys on which the plan or map is based;
- The date(s) on which the surveys were made;
- The direction of magnetic north;
- The scale at which the plan or map was drawn;
- The contour interval, if the vertical relief is shown;
- A key, or guide, to the symbols used in the drawing.

This information is often located in one corner of the map. It is called the legend.



How to read a topographic map (page 2)

A_L2_HO1

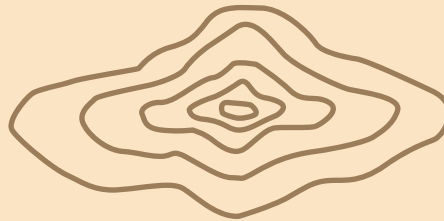
Contour lines

Contour lines connect points at the same height above sea level.

They are plotted by taking lots of pictures from above the structure (aerial photographs).

The closer these contour lines are the steeper the gradient. However, the height difference between one line and the next is always the same throughout the map. This is called the contour interval.

Peak



Two hills



Hill



Valley



How to read a topographic map (page 3)

A_L2_HO1

Colour coding

Different colours are used to indicate certain objects.

Brown = natural features including contours and ridges

Blue = all water and river features

Green = vegetation and ground cover

Black and red = human features such as roads, railways and buildings

Features of the landscape

Topographic maps also detail both the natural and human features of a landscape. Natural features include forests, rivers, lakes, mangroves, mountains and beaches, while human features include roads, ridges, fences, buildings, parks, railways and mines.

Topographic maps use conventional symbols to represent all these places and their meanings are explained in the map key or legend.

Grid lines

Topographic maps are overprinted with grid lines to help us locate the different places.

These vertical and horizontal lines are all given two-digit numbers in the map margins called 'area references'.

The lines running up and down the map (north/south) are called 'eastings' because the numbers increase the further east they are.

The lines running across the map horizontally (east/west) are called 'northings' because the numbers increase the further north they are.



How to read a topographic map (page 4)

A_L2_HO1

Deciduous trees



Woods



Marsh or swamp



Rocks



Embankment



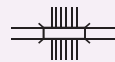
Railway (single or double line)



Road (fenced)



Bridge



House (brick)



Shed with open sides



Fence



Concrete or brick drain



River



Boundaries



Evergreen trees



Orchard



Rough pasture



Sand and shingle



Cutting



Path



Road (unfenced)



Wall and gate



Greenhouse



Shed with closed sides



Hedge



Earth drain



Canal with lock

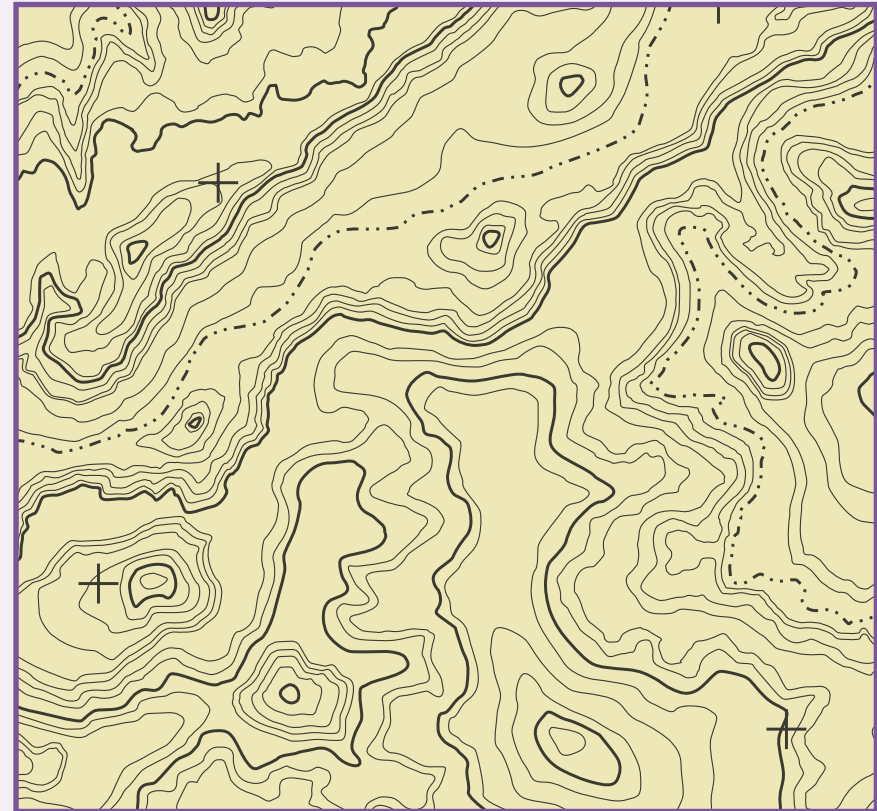
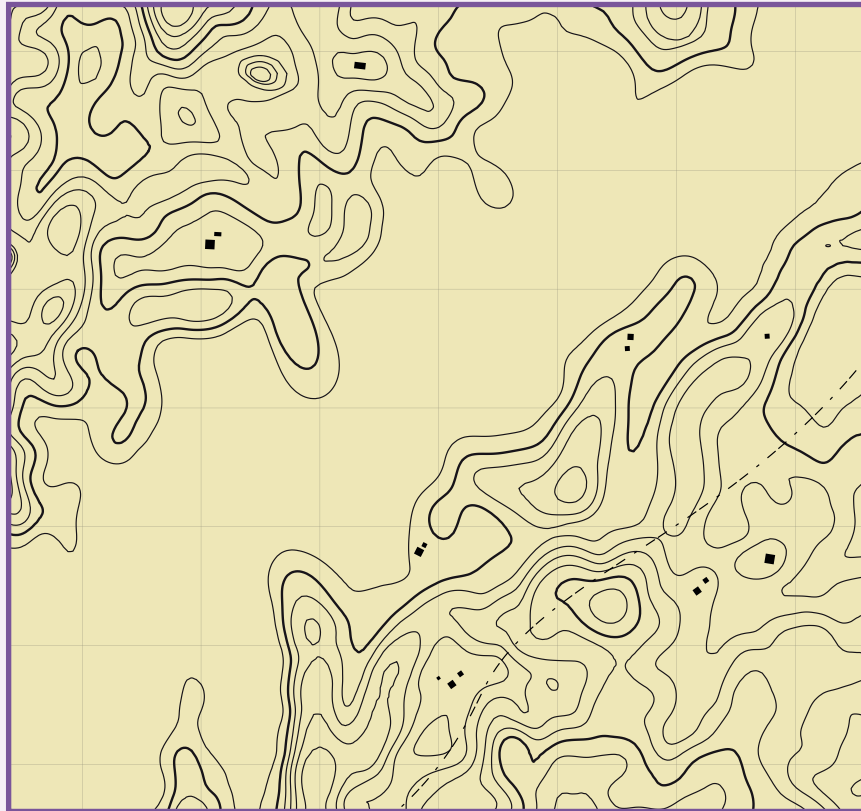


Lake or pond



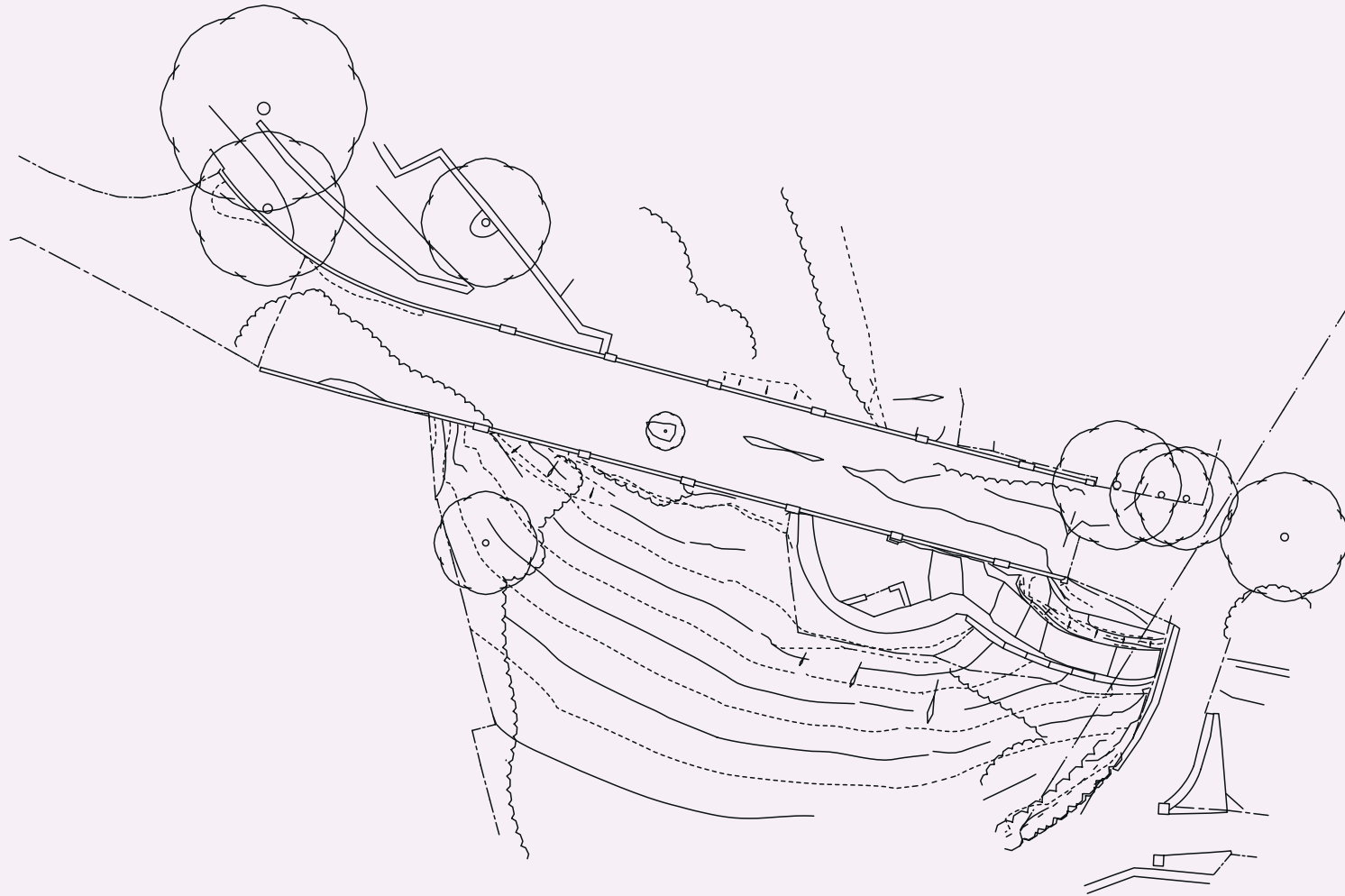
Examples of topographic maps/plans

A_L2_H02



Examples of topographic maps/plans

A_L2_H02



Make your own topographic drawing

A_L2_HO3

Directions:

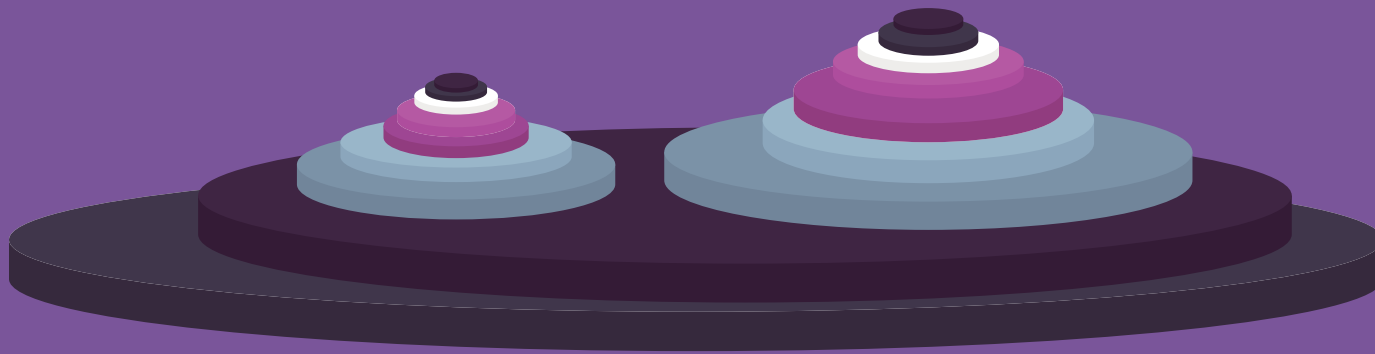
1. Using modelling dough or clay, design a landform (mountain). Check your landform design with your teacher.
2. Place your landform inside a plastic container. Using a measuring cup, add 1/2 cup of water to the container.
3. Place a transparent sheet on top of the container.
4. Looking down on the container, use an overhead pen and trace around where the water meets the landform.

This will represent an isoline or contour - a line showing equal elevation.

5. Add another 1/2 cup of water to the system. Repeat the drawing process.

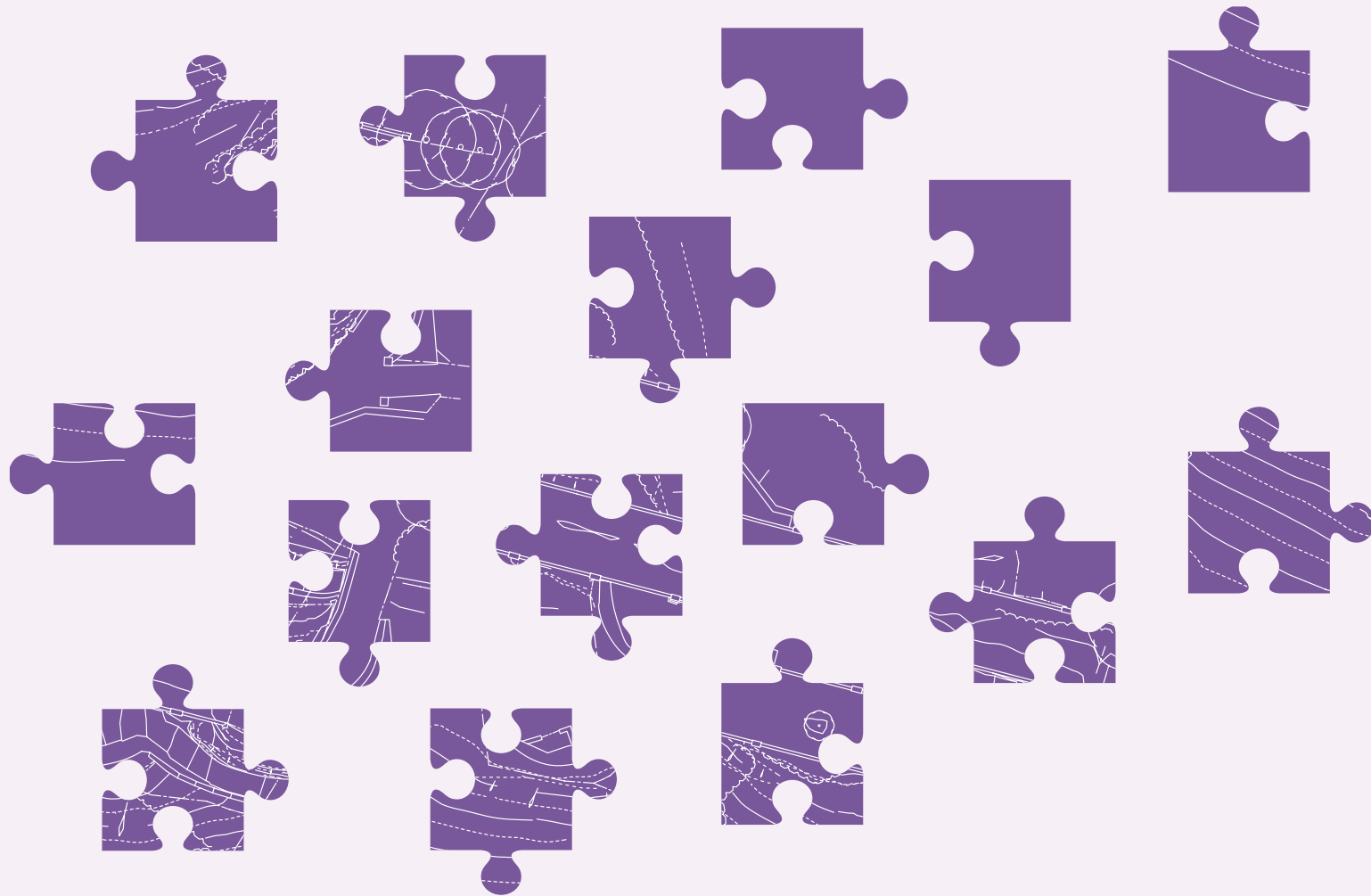
Continue to repeat this step until the water covers the landform or the container gets filled.

Here's what a good one looks like:



Topographic map of Mill Waters jigsaw

A_L2_HO4



Topographic map of Mill Waters jigsaw

A_L2_HO4

