

Lesson 6 Contours and relief - 1

Learning objectives

Children should understand:

- contours show the shape of the land (relief);
- how sea level is measured.

Success criteria

Children can:

- begin to understand how relief (the shape of the land) is shown on OS maps;
- understand how sea level is assessed.

Programme of Study

- Pupils should use their geographical skills to enhance their locational and place knowledge.

Skills and processes

Geographical skills and fieldwork:

- Use maps, atlases, globes and digital/computer mapping.
- Use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features.
- Devise a simple map and use and construct basic symbols in a key.

Prior learning

It would be helpful if the children have been exposed to a range of maps in the classroom.

Vocabulary

OS map, contour, relief, height, altitude, sea level

Resources

- **PowerPoint presentation:** Core lessons Y3 - Let's look at contours (**LCP CD**)
- **Activity sheet:** *Simple contours for Cardboard Contour Island*
- Digital cameras
- **Resource sheet:** *Cardboard Contour Island template* (enlarge to A2)
- OS maps
- Digimap

Cross-curricular links

Computing

Language and literacy - Spoken English

D&T

Differentiation

Some children may find the understanding of relief more difficult and need support.

Assessment evidence

Children can recognise simple landforms represented by contours.

Advance preparation

Notes for Teachers

There is sometimes confusion between the terms altitude, height, topography and relief. Height and altitude usually refer to distance above sea level and are given in an exact number of metres, (e.g. the summit of Snowdon is 1,085 metres above sea level).

Relief refers to the shape of the land which varies between plains and mountain ranges. However a plateau is a landform with low relief but at high altitude (or height above sea level). A topographic map shows the relief of an area, either by spot heights, contours or layer shading.

Starter

Show the children the OS map extract (or Digimap) that you are going to use for the next two lessons and ask some basic questions about the sheet. Let them know that by the end of the next two lessons they will be able to recognise relief features on these maps.

Share the **Learning objectives** and **Success criteria** with the children.

Introduction

Use the **PowerPoint presentation: Core lessons Y3 - Let's look at contours (LCP CD)**.

Slide 1 shows what contour lines look like, ask the children if they can identify them on their maps. Slide 2 demonstrates what sea level is.

Learning activity 1

Use slide 3 (Cardboard Contour Island) to encourage the children in groups to make their own contour models using **Activity sheet: Simple contours for Cardboard Contour Island**. Once the models are complete, use the models to inform activities in Lesson 7.

Plenary

Share the models that the class have made and ask if they can recognise landform shapes such as hill, valley and summit. Look at the models from different angles so that they can see the shapes they have constructed in plan and side (elevation) view. Take photographs of the models from above and talk about the contour patterns displayed.

Name: _____

Date: _____



Simple contours for Cardboard Contour Island

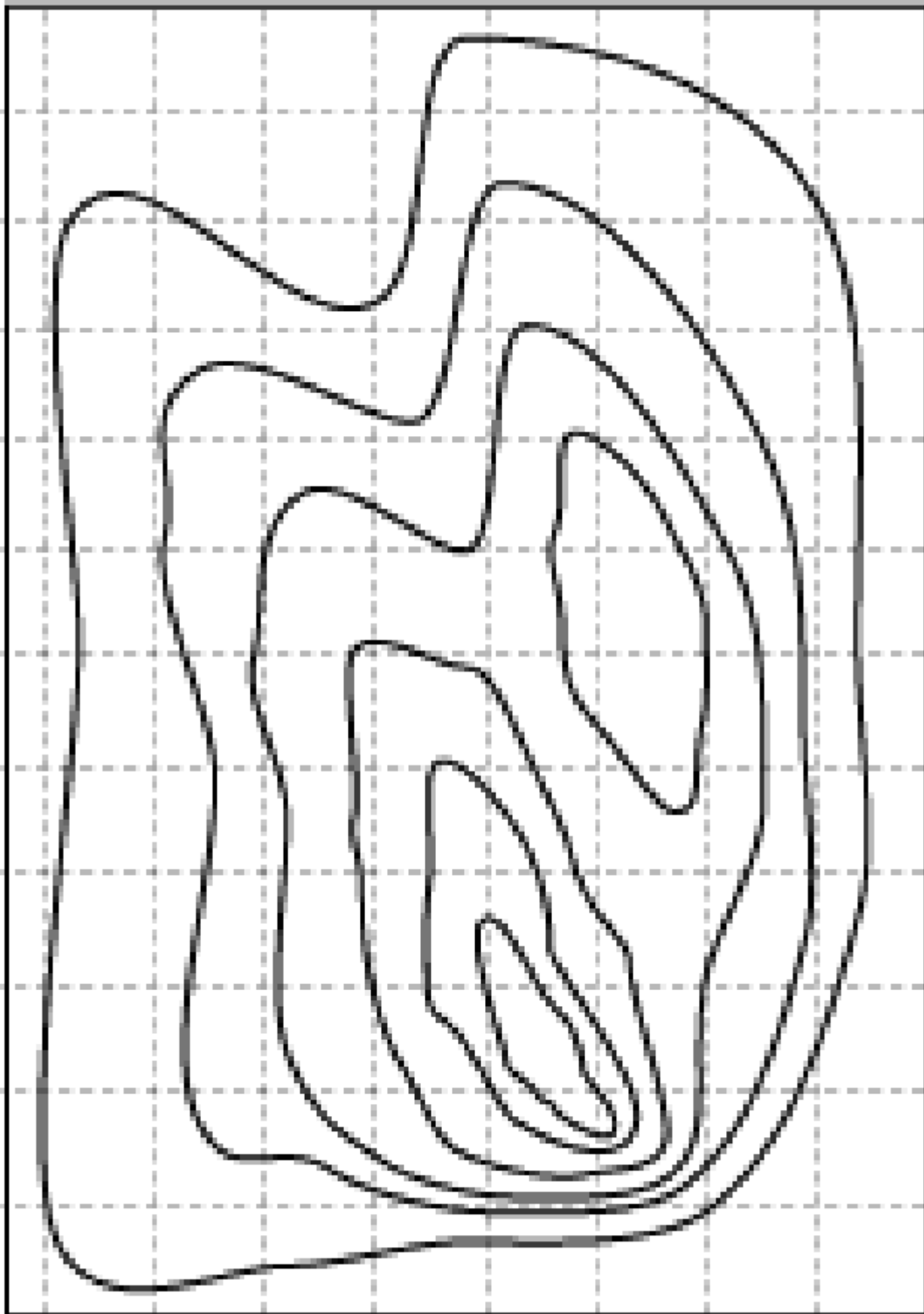
Resources

- Cardboard Contour Island template (enlarged to A2)
- Thick cardboard
- Scissors
- Glue
- Paints/crayons

Instructions

1. Using a pair of scissors and the Cardboard Contour Island template, cut around the outer contour line.
2. Place the shape on a piece of cardboard, trace around the shape then cut out the cardboard shape.
3. Continue to do this with all the pieces until you have a complete set of cardboard shapes.
4. If you wish to colour the different shapes this is the time to do it.
5. When the shapes are dry assemble them to make your Cardboard Contour Island.

Cardboard Contour Island template



Lesson 7 Contours and relief - 2

Learning objectives

Children should understand:

- there are two ways of representing height on an OS map;
- contours show the shape of the land (relief);
- layer colouring is a third way of showing relief on maps.

Success criteria

Children can:

- state how high above sea level a particular feature is on an OS map;
- begin to understand how height and relief are shown on OS maps.

Programme of Study

- Pupils should use their geographical skills to enhance their locational and place knowledge.

Skills and processes

Geographical skills and fieldwork:

- Use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features.
- Devise a simple map and use and construct basic symbols in a key.

Prior learning

It would be helpful if the children have been exposed to a range of maps in the classroom.

Vocabulary

OS map, contour, relief

Resources

- **PowerPoint presentation:** *Core lessons Y3 - Let's look at contours (LCP CD)*
- Contour model from Lesson 6

Cross-curricular links

Computing

Language and literacy

D&T

Differentiation

Some children may find the understanding of relief more difficult and need support.

Some children will be able to interpret relief on maps for themselves.

Assessment evidence

Children can say how high a particular feature is on an OS map and recognise simple landforms represented by contours.

Advance preparation

Notes for Teachers

There is sometimes confusion between the terms altitude, height, topography and relief. Height and altitude usually refer to distance above sea level and are given in an exact number of metres, (e.g. the summit of Snowdon is 1,085 metres above sea level).

Relief refers to the shape of the land which varies between plains and mountain ranges. However a plateau is a landform with low relief but at high altitude (or height above sea level). A topographic map shows the relief of an area, either by spot heights, contours or layer shading.

Starter

For the OS map or Digimap (provided in Lesson 6) show the children typical spot heights and then quiz them to find more.

Ask:

Who can find the highest and lowest spot heights on a particular map extract?

Explain that these spot heights indicate the height of the point above (mean) sea level. For an explanation of sea level see slide 1 on the **PowerPoint presentation: Core Lessons Y3 - Let's look at contours (LCP CD)**.

Share the **Learning objectives** and **Success criteria** with the children.

Introduction

Recap using slides 1-3 of **PowerPoint presentation: (Contours and relief) Core lessons Y3 - Let's look at contours (LCP CD)**.

Learning activity 1

Using slides 4, 5, 6 and 7 in conjunction with the children's OS map extracts or Digimaps and, working in groups, encourage the children to recognise the height indicators, i.e. contours and spot heights. Then ask the children to quiz each other using their map extracts guided by the information and questions on the slides.

Learning activity 2

Working in groups and using slides 8, 9, 10, 11 and 12 in conjunction with the OS map extracts or Digimaps, encourage the children to recognise the contour patterns. Then ask the children to quiz each other using their map extract.

Plenary

Ask the children if they can recall the two ways of indicating height on OS maps. (Answer: Spot heights and relief.)

Ask the children if they can think of another way of showing height on maps. Show them atlas maps of relief and talk about how the height is identified on these (layer shading).