

## Landscape and Human Activity

**Aim:** to investigate whether human activities are influenced by the physical landscape or not.

**Resources:** OSi Discovery Map and OSi Aerial Photography, OSi's Discovery Legend available as a PDF on Scoilnet Maps' home page.

**Content:** slopes, relief, contours, elevation profiles, impact of physical landscape on people.

### Preparation for Activity

The Discovery Map shows the relief of the landscape. **Relief** is the ups and downs of the landscape. It is made up of slopes represented on maps by contour lines and layer colouring. Remember the following:

1. Contours which are close together represent steep slopes.
2. Contours which are far apart represent gentle slopes.
3. Contours which are the same distance apart represent constant slopes.
4. The difference in height between contours on OSi Discovery Maps is 10 metres
5. Colours change every 100 metres.
6. The legend shows what the colours represent. Light and dark green represent land under 200m and darkening shades of tan above 200m.

### Setting up Scoilnet Maps

1. Open **Scoilnet Maps**
2. Open the **OSi Map Viewer**
3. Using the **Map Switcher** activate the *OSi Discovery Map*
4. Activate the **Grid Reference** tool
5. Find 'Glenmacnass, Bray' using the **OSi Maps Search for a location in Ireland** tool located at the top of the screen. Glenmacnass valley and its surrounding area are the focus of this activity.
6. Check the scale is 1:10,000. If it isn't, adjust the scale to 1:10,000 using the *Zoom Tool*.

### Observation Activity

Observe the Glenmacnass map very carefully for a couple of minutes. Refer to the OSi's Discovery Series Legend for the meaning of symbols and colours.

Find northing O2. Using your finger as a pointer move back and forth from west to east along this northing examining how the slopes change.

Using information from the map answer the following questions:

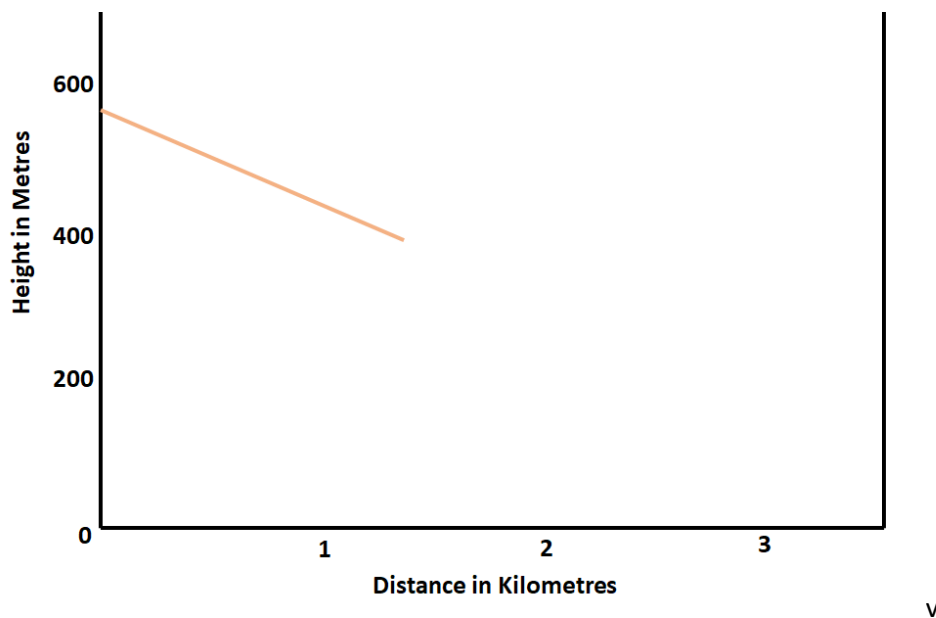
1. What is the height of the summit of Scarr Mountain? \_\_\_\_\_
2. What is the height of the spot height located in Glenmacnass valley? \_\_\_\_\_
3. What is the difference in metres between the lowest and highest spot height? \_\_\_\_\_
4. Name one river shown on the map. \_\_\_\_\_

5. In which direction is the named river flowing? \_\_\_\_\_
6. How many buildings are on the map? \_\_\_\_\_
7. What type of boundary is shown on the map? \_\_\_\_\_
8. Name **two** road types present on the map. \_\_\_\_\_
9. Is all the land shown on this map above 200m? \_\_\_\_\_
10. What is the approximate area of land, in kilometres, shown on the map? \_\_\_\_\_

**Drawing the relief of the land freehand**

Imagine how the height and slope of the land changes as you move along Northing 02 from west to east. In other words, imagine the shape or **profile** of the land. The diagram below is a partly drawn profile of the landscape along Northing 02. Using the information you got from your observations and questions, complete the profile drawing below freehand.

**Elevation Profile along Northing 02**



**Drawing a profile using the Elevation Profile tool**

Activate the **Elevation Profile** tool. Draw a profile along Northing 02. Examine the profile carefully. See how the height and slope changes as you move along the profile line. Remember that by moving the cursor along the drawn profile you can see the height of any point on the profile. Compare your hand drawn profile with the digitally drawn one. What did you find difficult and what do you need to do to overcome this difficulty?

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## Describing the Relief

Using the words below complete the following description of the landscape shown on the map.

glacier few cold podzol 640m wet sides unsuitable limited  
mountainous settlements u-shaped scarce flat 250m severe

The landscape in the map is very \_\_\_\_\_. The height of the land ranges from just over \_\_\_\_\_ metres up to \_\_\_\_\_ metres. The slopes are very steep especially on the \_\_\_\_\_ of Glenmacnass valley. The \_\_\_\_\_ floor of Glenmacnass and its steep sides show it is a \_\_\_\_\_ valley which was eroded by a \_\_\_\_\_. Irish mountains are mostly \_\_\_\_\_ for human settlement as they are too \_\_\_\_\_, \_\_\_\_\_ and have infertile \_\_\_\_\_ soils. Few Irish people live above 200 metres as the environment is too \_\_\_\_\_ and economic opportunities are \_\_\_\_\_. Proof of this is the small number of \_\_\_\_\_ in the Glenmacnass area.

## The impact of the landscape on people

Activate **Swipe and Spotlight**. Select the *Discovery Map* as the top layer and *The Aerial Photograph* the bottom layer. Choose *Vertical Swipe* from **Type** and *Large* from **Size**.

Swipe very, very, slowly from left to right and watch as the Glenmacnass area on the *OSi Discovery map* changes into an *OSi Aerial Photograph*. Examine how the map represents the slopes, rivers, roads, buildings etc. Then swipe left very slowly and see the map change again into the photograph. Do this a number of times. Examine the landscape and look out for human activities and settlements both on the map and aerial photograph.

Observe the ground level collage of photographs below. All the photographs were taken around Glenmacnass Valley and Waterfall located at the north of the Discovery Map.



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Using evidence from the map, aerial photograph and the collage complete the following table. Insert a tick (✓) if you can find evidence and an X if you can't. Record the map, aerial photograph or collage evidence you find.

Economic Activity	Present ✓ or X	Evidence of Economic Activity		
		Map	Aerial photo	Collage
Mining				
Retail shops				
Tourism				
Forestry				
Transport				
Entertainment				
Agriculture				
Manufacturing				

Using evidence from the map, aerial photograph and collage fill in the missing words in the paragraph below:

The relief of the Glenmacnass area is \_\_\_\_\_. The steep \_\_\_\_\_, cool, wet \_\_\_\_\_ and \_\_\_\_\_ soils make it \_\_\_\_\_ for human settlement. Most of the land is open mountain which is covered with heather and \_\_\_\_\_ or is just bare \_\_\_\_\_. One farm animal, the \_\_\_\_\_, thrives on the rough mountain pastures. The small population is confined to the sheltered floor of a \_\_\_\_\_ valley which was formed by a \_\_\_\_\_ during the last Ice Age. The only good grassland is on the valley \_\_\_\_\_. It is difficult for the hill sheep farmer to grow enough \_\_\_\_\_ on the valley floor in summertime to feed his flock during the \_\_\_\_\_ when heavy \_\_\_\_\_ is common. They are often cut off by heavy snow \_\_\_\_\_. There may also be some work tending trees in the local \_\_\_\_\_. People in the Glenmacnass area are greatly affected by the mountainous \_\_\_\_\_ and harsh \_\_\_\_\_.

### Consolidation

Explain how a mountainous landscape affects human activities. Include some of the following words in your answer: relief, steep slopes, harsh climate, settlement, hill farming, forestry.

### Extension

1. Open Scoilnet Maps
2. Open the OSi Map Viewer
3. Using the Map Switcher activate the *Discovery Map*
4. Activate the Grid Reference tool
5. Find 'Galbally Co. Limerick' using the Search for a location in Ireland tool. Examine the area around Galbally.

Using the Swipe and Spotlight tool and the Elevation Profile tool examine how the physical landscape has impacted human activities and settlement in the Galbally area of County Limerick.