

Map Work Revision Notes

(Hint: You must always back up map work questions with evidence from the map e.g. grid references.)

Scale

Scale is the ratio between a distance on a map and the corresponding distance on the ground e.g. 1: 50,000 1 cm on the map = 50,000 cm on the ground.

Grid References

Grid references are a way of locating places on a map. The large blue letter on the map is called the sub-zone letter. The numbers along the bottom of the map are called the Eastings and the numbers along the side are called the Northings.

4 Figure Grid References

(Hint: In the door and then up the stairs! Take the numbers along the bottom of the map first and then along the side.)

- (1) Give the sub-zone letter.
B
- (2) Give the two-digit number of the Easting line to the left of the square.
B 53
- (3) Give the two-digit number of the Northing line at the bottom of the square.
B 53 03

6 Figure Grid References

(Hint: You can use a ruler to divide the square up into 10 equal parts along the Easting and the Northing line, 2 mm each.)

- (1) Give the sub-zone letter.
B
- (2) Give the two-digit number of the Easting line to the left of the square.
B 55_
- (3) Give the two-digit number of the Northing line at the bottom of the square.
B 55_ 05_
- (4) Now go back and add the 3rd and 6th figure. Divide the Easting and the Northing lines into 10 equal parts each. Firstly, count how far out from the Easting line the object is.
B 557 05_

Then count how far up from the Northing line the object is.

B 557 058

Direction

The cardinal points on a compass are North, South, East and West.

Distance

Straight-line distance

(Hint: Also called 'as the crow flies'.)

1. Put the straight edge of a piece of paper along the two points.
2. Mark where each point cuts the page.
3. Remove the sheet and place against the scale bar at the bottom of the Legend with the map. (Hint: Make sure you place it at the 0 not the beginning of the line.)
4. Now read off the length of the line in miles or kilometres.

Curved-line distance

(Hint: It normally asks you to measure a road or river.)

1. Put the straight edge of a piece of paper at the starting point. Mark it on the page and on the map.
2. Now mark where the line makes its first turn. Mark the map and the page.
Turn the page until it lines up with the line again mark it.
3. Keep marking and turning the page until you reach the end point.
4. Remove the sheet and place against the scale bar at the bottom of the Legend with the map. (Hint: Make sure you place it at the 0 not the beginning of the line.)
5. Now read off the length of the line from the first mark to the last in miles or kilometres.

Higher Level Only

Area

Area of an OS map

1. Count the number of blue squares along the bottom of the map extract.
2. Count the number of blue squares along the side of the map extract.
3. Area is $(1) \times (2) = \text{Km}^2$

Area of an irregular shape

1. Count the number of squares fully covered (Tick the squares as you go along).
2. Count the number of squares more than half covered.
3. Ignore the rest of the squares.
4. Area is $(1) + (2) = \text{Km}^2$

Height on a map

Height is represented on a map in four ways:

1. Contour Lines: They are black numbered lines on a map that join places of equal height above sea level.
2. Colour: Lowland (up to 200 m) = green, Highland = brown (Darker as height increases.)
3. Spot Heights: A small black dot that gives the exact height of the ground.
4. Triangulation Stations: A black triangle found on top of a hill.

Higher Level Only

Slope (Gradient)

Steep Slope: Contours tightly packed together.

Gentle Slope: Contours widely spaced.

Flat Land: Absence of contours.

Cliff: Contours on top of each other.

Sketch Maps

(Marking Scheme: 12 marks, 5 features @ 2 marks each {1 mark location correct and 1 mark named} frame 1 mark, orientation 1 mark)

(Hint: Always draw sketch maps in pencil, never trace it!)

- (1) Write the title at the top of the page, 'Sketch map of Drogheda'.
- (2) Measure the size of the original map extract and draw the sketch map half the size. Make sure that they are the same shape.
- (3) Divide the sketch map and the map extract up into 9 even squares.
- (4) Draw in the north arrow.
- (5) Draw in the coastline, using the 9 squares to guide you.
- (6) Draw in only the features asked in the question. Only place a symbol on the map. Explain it in a legend/key at the bottom of the map.
- (7) Roads can be named on the sketch map. They should only be a pencil line.

Drainage

Well-drained areas: Few rivers, lots of settlement and roads.

Poorly drained areas: Few roads, forests planted nearby, lots of rivers/lakes and very little settlement.

Communications

The types of communications on a map are roads, railways, canals, ferries and airports. The following factors can influence communications:

- (1) Rivers: Roads are built back from rivers to prevent flooding.
- (2) Low-lying areas: Most people live in low-lying areas therefore most forms of communications are located there. The gentle gradient makes building easier and less expensive.
- (3) Mountains: Roads will cut through mountains at their lowest point called a pass or a gap.
- (4) Upland areas: There are few roads and the steep gradient makes road building expensive.
- (5) Valley floors: Roads tend to follow flat valley floors.

Ancient Settlement

Ancient settlements are called antiquities on a map and are coloured in red. It refers to burial places, forts, castles and churches.

Rural Settlement

(Marking Scheme: 2 reasons @ 3 marks each, 2 marks statement, 1 mark development.)

Rural (countryside) settlement is influenced by the following factors:

- (1) Drainage: People avoid boggy areas or places likely to flood.
- (2) Altitude: People tend to live in low-lying areas below 200m, above this is too wet, cold and windy.
- (3) Aspect: People build on south facing slopes, as they are warmer.

- (4) Slope: People live mainly in flat gently sloping areas that are good for farming and building.
- (5) Shelter: People live in sheltered areas e.g. the base of a hill. The density of settlement refers to the number of houses per square kilometre.

Rural Settlement Patterns

- (1) Nucleated (Clustered): Houses located in groups often in housing estates or where roads meet (Nodal point).
- (2) Linear (Ribbon): Houses in a line usually built along a road due to ease of access to communications.
- (3) Dispersed: Houses dotted around the countryside, they are usually farmhouses with their own farm. It also tends to show areas of fertile land.
- (4) Absence: If there are no houses in the area it usually means an area of bad land e.g. bogs, marsh or high land.

Urban Functions

(Hint: Urban functions can also be used for land use.)

(Marking Scheme: 3 services @ 4 marks each, 2 marks statement, 1 mark development, 1 mark map evidence.)

Urban areas are towns and cities. Functions of a town mean the services and activities that it provides for people. Present day functions are:

- (1) Educational: Schools, colleges, universities.
- (2) Tourism: Tourist office, hostels, caravan sites, golf courses, antiquities.
- (3) Transport: Roads, railway, airport, car parks.
- (4) Market/Retail: Dispersed settlement near the town due to farming. They would sell products in the town. Shops and shopping centres.
- (5) Port: Harbour, quay, pier.
- (6) Industrial: Industrial estates.
- (7) Religious (Ecclesiastical): Church, cathedral, graveyard.
- (8) Medical: Hospital.
- (9) Residential: Housing estates.
- (10) Recreational (Leisure): Golf courses, tennis courts, parks, football pitches.

Some urban functions change over time. In earlier times towns would have had defensive functions e.g. castles, town walls or monastic functions e.g. abbey, friary.

Urban Location

(Marking Scheme: 3 reasons @ 4 marks each, 2 marks statement, 1 mark development, 1 mark map evidence.)

Location describes where a town set-up and the main reasons for its development.

- (1) On flat gently sloping land for ease of construction (Relief).
- (2) On the bridging point (where bridges could be built) of a river.
- (3) Beside rivers for food, transport and defence.
- (4) At a nodal point (meeting place of roads) for trade.
- (5) At a port for overseas trade/tourism.
- (6) On the site of castle or monastery for protection.

Land use

Forestry: Forests are normally planted in badly drained areas. Coniferous forests are planted in upland areas with steep slopes and poor soils. They can also be planted to prevent soil erosion. They are planted in wet lowland areas. Natural woodlands are found in historical estates to improve the scenery.

Agriculture: It is the main land use in lowland areas in Ireland.

Tourism

(Marking Scheme: 3 reasons @ 4 marks each, 2 marks statement, 1 mark development and 1 mark map evidence)

Tourists are attracted to areas for the following reasons:

- (1) Coastline: Swimming, fishing, watersports.
- (2) Rivers/Lakes: Watersports, anglers.
- (3) Antiquities: Tracing ancestors.
- (4) Mountains: Orienteering, hill-walking.
- (5) Forests: Picnics, nature trails.
- (6) Accommodation: Hostels, caravan parks, camping sites.
- (7) Nature Reserves: Bird watching.
- (8) Recreation: Golf courses, racecourses.

Sample Answers

1. *It has been decided to build a factory at V 962 919, near the junction at Ballydribbeen. Using information from the map, explain two reasons for the choice of this site. [10 marks]*

Transport

It is located near a road, the N71, which allows ease of access for the transport of raw materials to the factory and finished goods from the factory.

Town

It is also located near the town of Killarney, approx. 1km from the town centre. There would be a good labour force located in the town to work in the factory. It would also have access to banking and administration facilities.

2. *Referring to the O.S. map explain two different reasons why Killarney and its surrounding countryside is a popular tourist area. [12 marks]*

Lough Leane

Killarney is located next to a large lake Lough Leane, V 92 88. It is approx. 20 km². It is suitable for a variety of recreational activities. Tourists can use the area for fishing and picnics. It is also suitable for most water sports and boating activities V 902 902.

Forests

There are a huge variety of forested areas in the Killarney region e.g. V 95 86 at Muckross. This forest is an area of natural woodland, which was often planted by local landlords to improve the scenery of their estate. At V 95 89 there is also an area of mixed forest, which is made up of coniferous and deciduous trees.

3. The town of Ballina provides a variety of services. With reference to the OS map only describe three of these services. [12 marks]

Educational service

This service is evident in the town of Ballina with schools located at G 238 194. Here students receive primary and secondary level education.

Protection service

This service is evident in the town of Ballina in two ways the presence of the Garda Station at G 246 189, and the Fire station at G 245 192. The Gardai patrol the town and prevent disturbances and the fire station protects the town from the outbreak of fire.

Religious service

This service is important with five churches located in the town and a priory located outside the town at G 248 188. They provide for the religious needs of the town with daily mass.