

OS MAPS

Ordnance Survey Ireland

WHAT HAVE WE LEARNED SO FAR?

National Grid represented by a different letter.

Different scales of maps e.g 1:50,000

The legend/key of a map

Four Figure & Six figure grid references.

THE NATIONAL GRID

Divides the country into
25 squares or sub zones.

Horizontal lines= Eastings

Vertical lines= Northings



MAP SCALE

- Different scales of map show different detail.
- Map of world could be 1: 100,000,000 (small scale)
- Maps of towns could be 1:1000 (large scale, very detailed)
- Your maps are usually 1: 50,000 (good level of detail but not street names etc,.)

CONVERTING SCALE IN CM TO KM (DISTANCE)

If 1 cm on map = 50,000 cm on ground

Then 1 cm = 500m (50,000cm)

2cm = 1 km (100,000cm)

So if you measure distance of 8cm on your map how many km would that be?

8 divided by 2 = 4km

WORK THESE DISTANCES OUT.

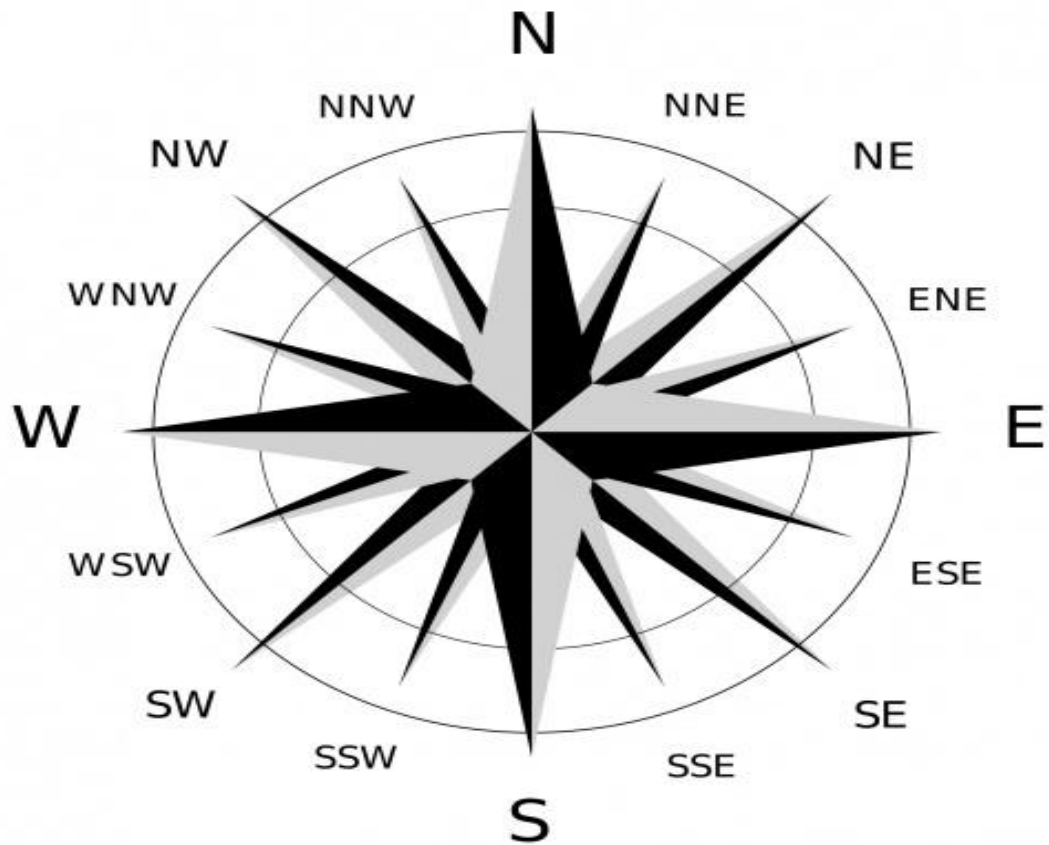
ROAD MEASURES 5.3 CM = KM

RIVER MEASURES 6.7 CM = KM

DISTANCE BETWEEN 2 X POST OFFICES 4CM = KM

DISTANCE BETWEEN 2 MOUNTAINS = 8.6 CM =

DIRECTIONS



LATITUDE

These are lines which are drawn horizontally across the globe.

They are numbered every 10 degrees north and south of the equator.

Latitude at the equator is 0 degrees.

Ireland lays around 50 degrees north of the equator.

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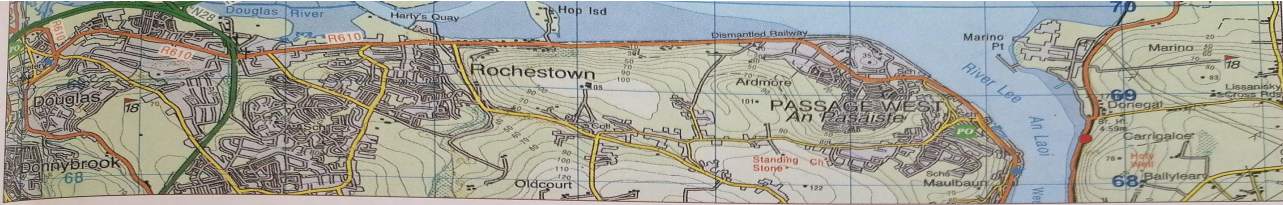
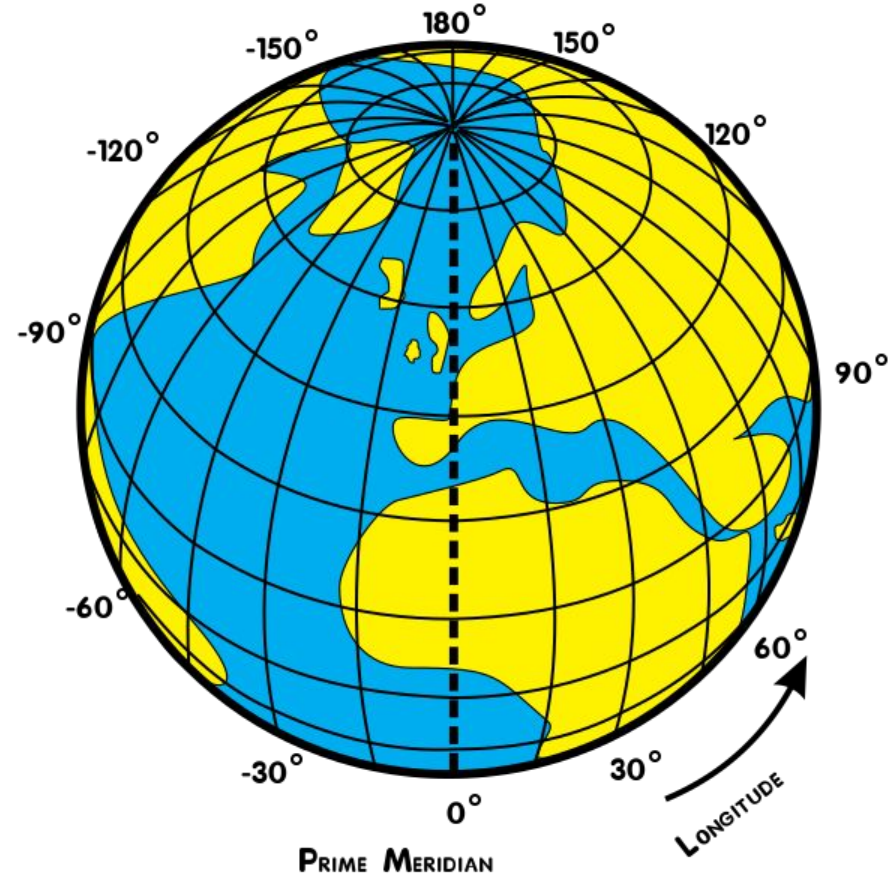
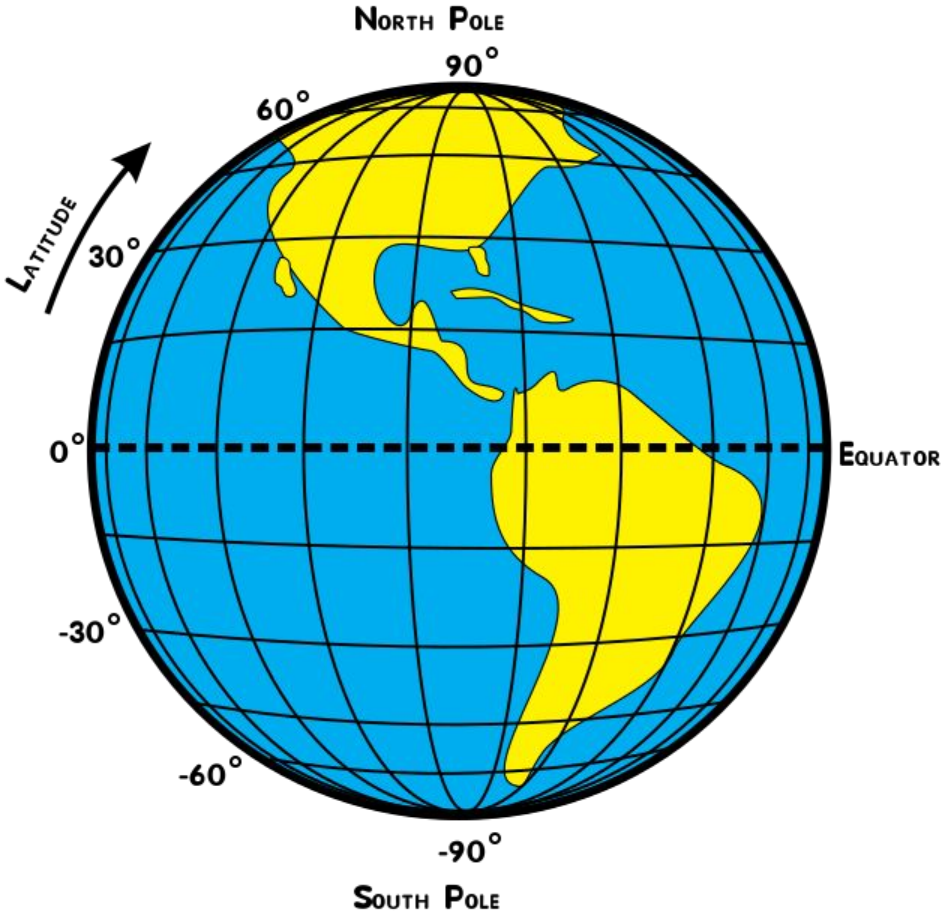


Fig. 7 OS map extract of Cork city

Activity

Map Skills Exercise

1. In which direction is the post office at Passage West from Little Island?
2. State the direction from the railway station at Fota Wildlife Park to Blackrock.
3. Which direction is the journey from the Jack Lynch Tunnel to the railway station near Carrigaloe?
4. State the direction of the journey to the post office on Little Island from Rochestown.
5. In which direction is the journey from the golf course at Douglas to the post office at Passage West?



LONGTITUDE

Lines of longitude are drawn vertically on a map from pole to pole.

They are numbered every 15 degrees from west to east.

Instead of distance from the equator here we measure distance from the “Prime Meridian.”

agh Mahon
Midden
Carrigrenan

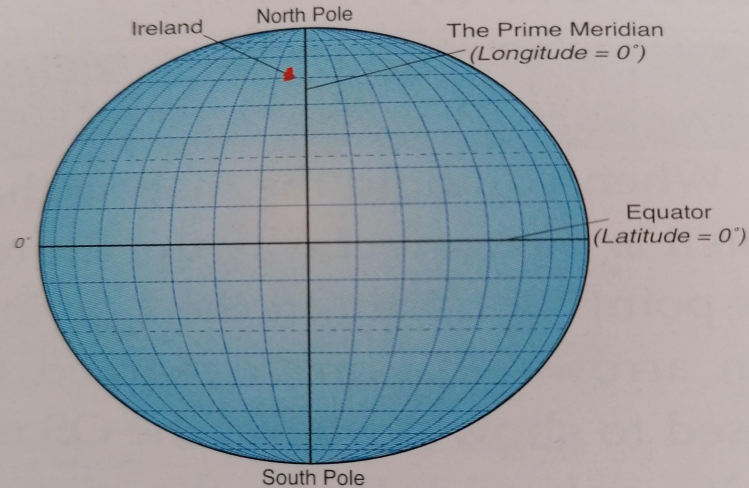


Fig. 8 Lines of latitude and longitude

FOUR & SIX FIGURE GRID REFERENCES

Go across the hall and up the stairs.

Use letter , easting , northing.

LEN

Invisible number line for 6 figure grid reference.

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What would you find at:

G 641 398

G 667 392

G 633 407

Provide Grid References for:

A megalithic tomb

An area of ground above 300metres.

HEIGHT ON A MAP. (ABOVE SEA LEVEL)

Colours, numbers & contour lines reveal height on a map.

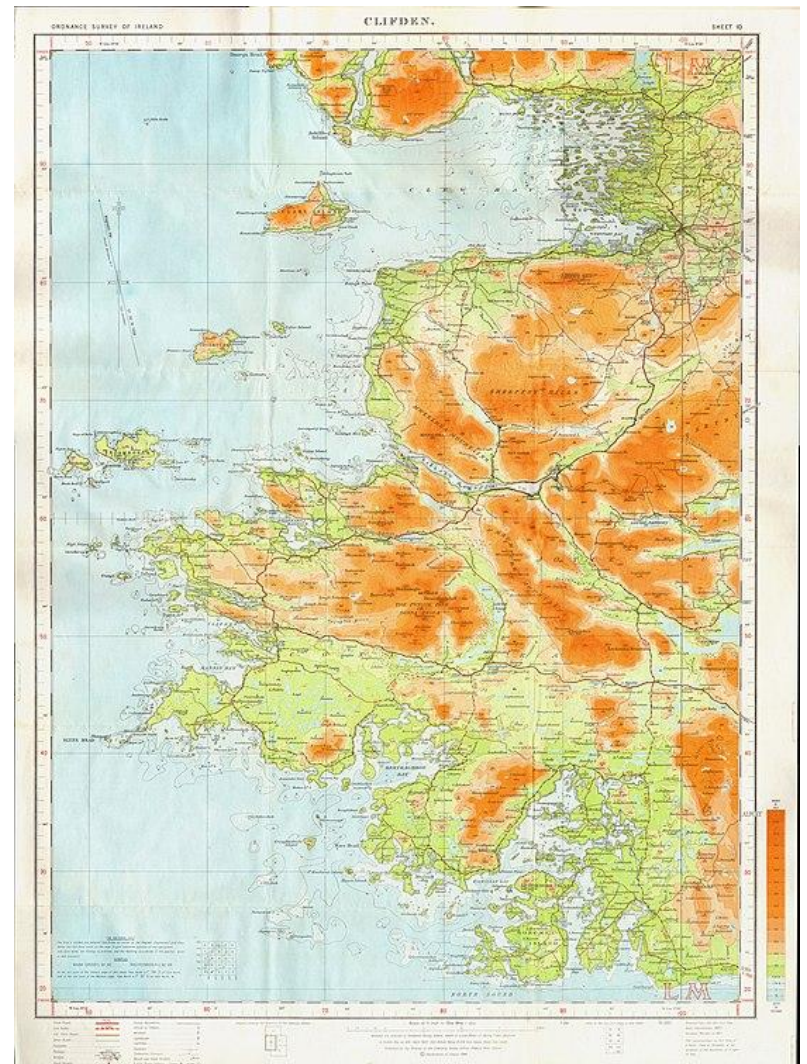
Green = Below 400m

Light Brown = 400– 599m

Dark Brown = above 600m

GALWAY MAP

Colour gives you a direct and immediate idea of the type of height in a region.

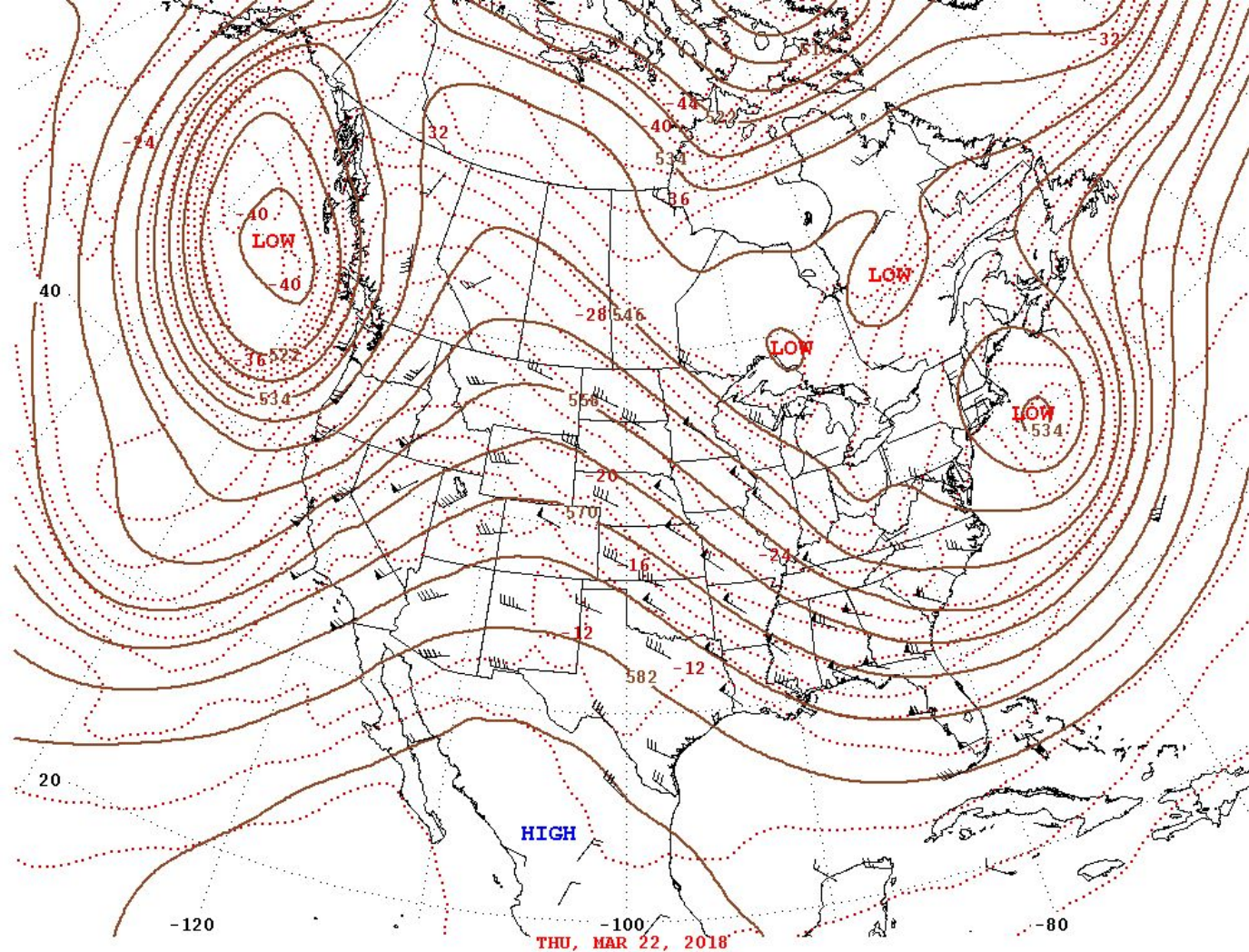


CONTOUR LINES

These are lines which join all points of the same height.

They also show us the type of slope.

Contour lines which are placed close together show areas of steep land.

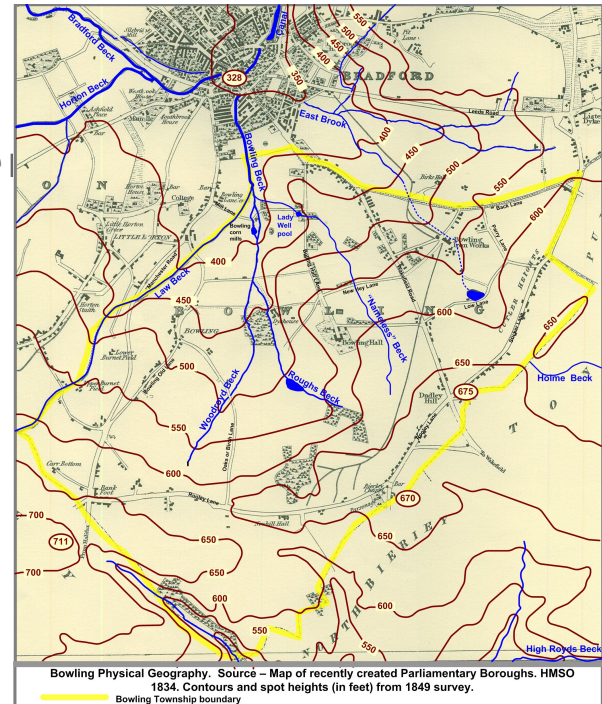


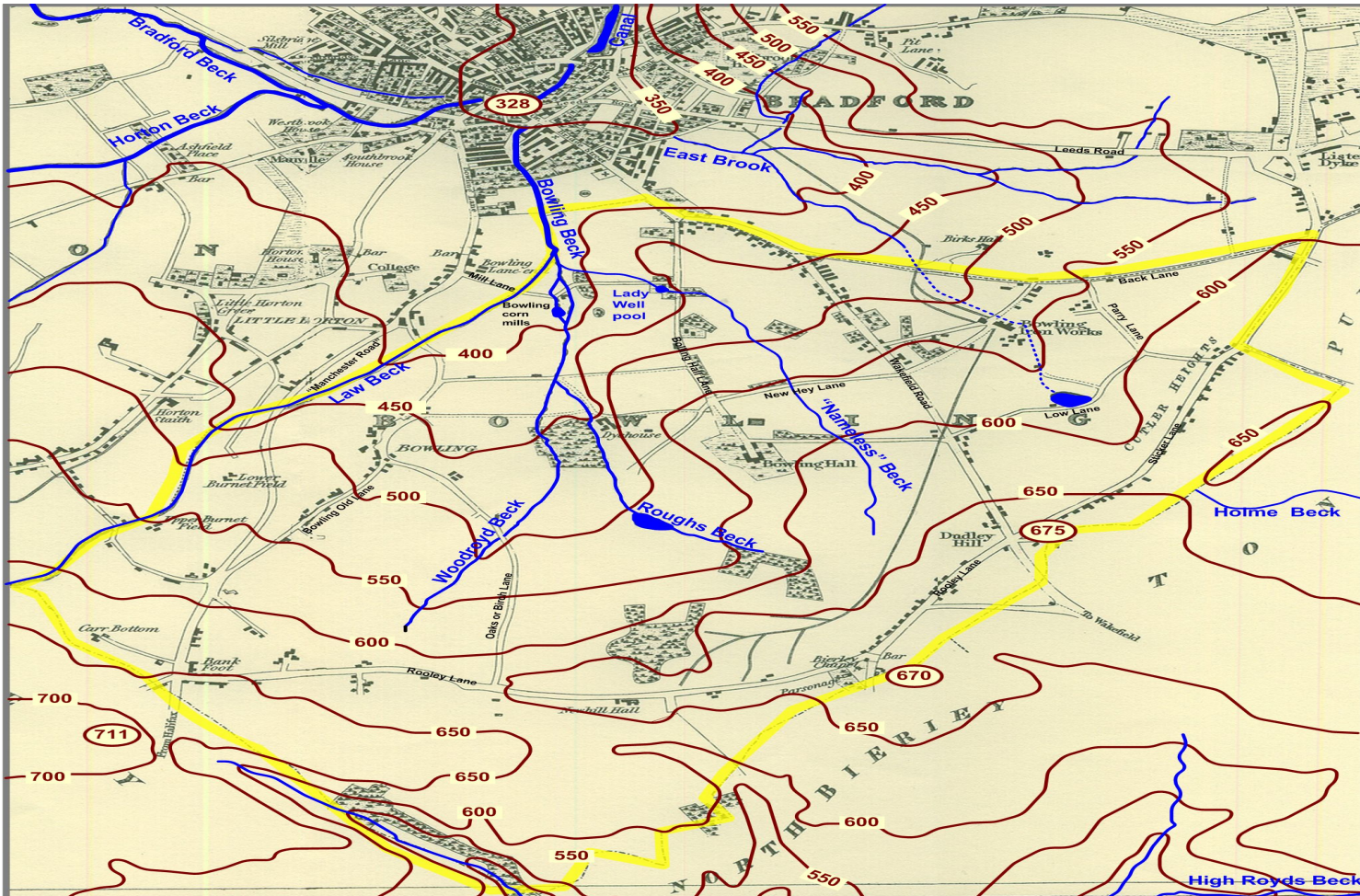
500-Millibar Height Contours at 7:00 A.M. E.S.T.

SPOT HEIGHTS

These show the height at particular points.

They are drawn as a black spot with a number written beside it.





Bowling Physical Geography. Source – Map of recently created Parliamentary Boroughs. HMSO 1834. Contours and spot heights (in feet) from 1849 survey.

————— Bowling Township boundary

TRIANGULATION PILLARS

Marked with triangles.

Usually show peaks in a mountain range , they have often had importance in the past to communication systems like radio, tv and phone masts.

SLOPE

Contour lines can be used to figure out the shape and slope of the land.

For example, v shaped valleys, cliffs, gentle and even slopes.

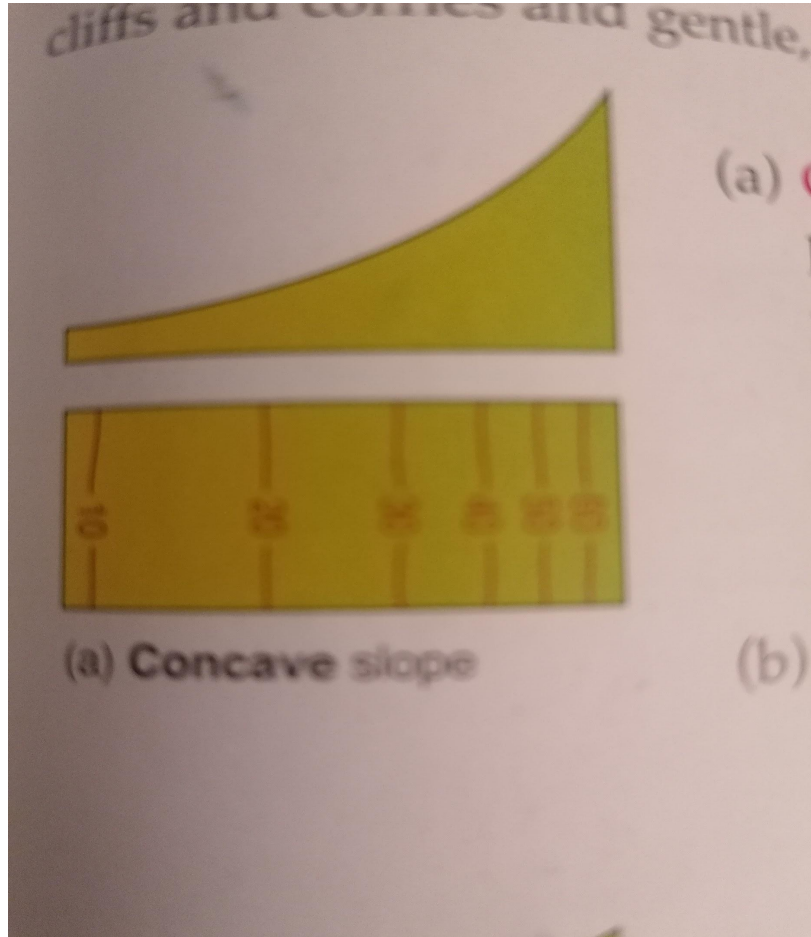
There are 4 main types.

CONCAVE

These have a deep upper section and a gentle lower section.

Contour lines are widely spaced on bottom and close together on top.

CONCAVE

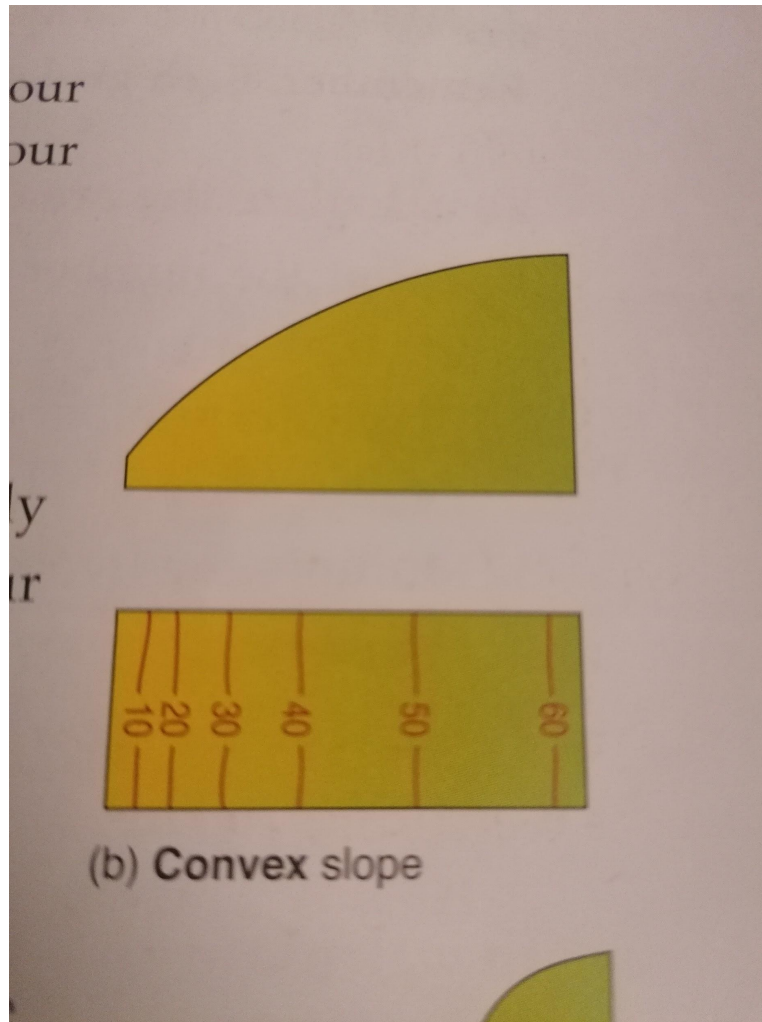


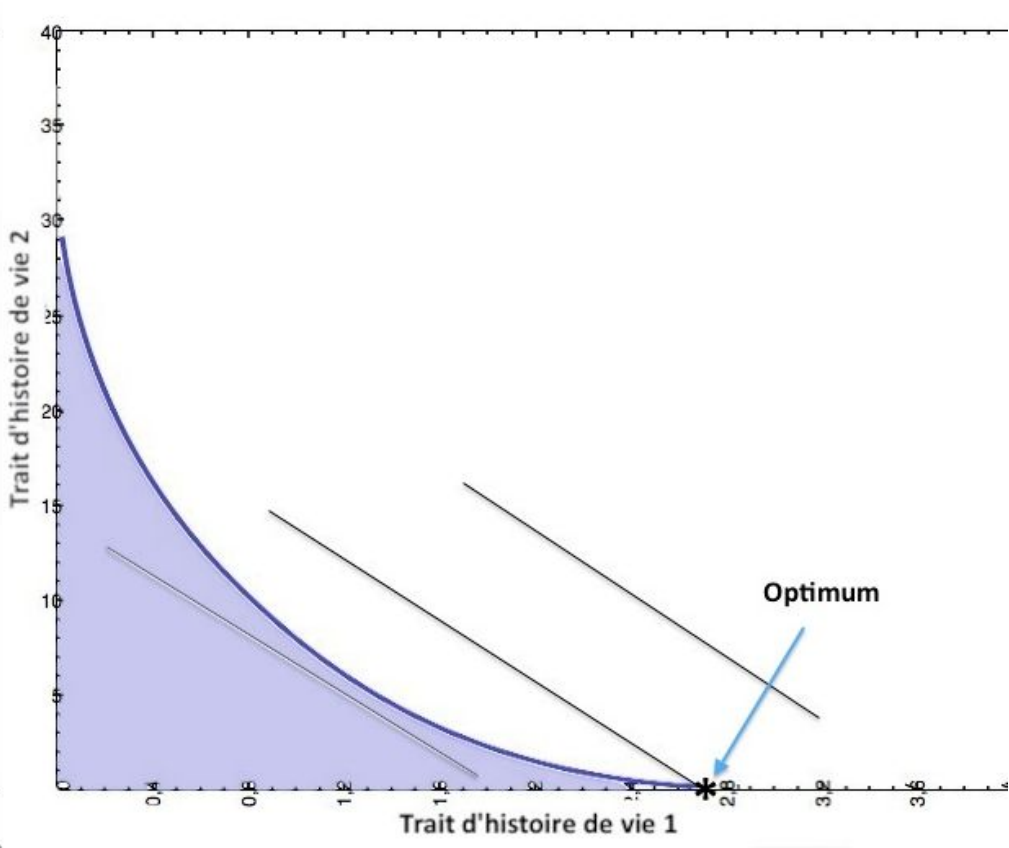
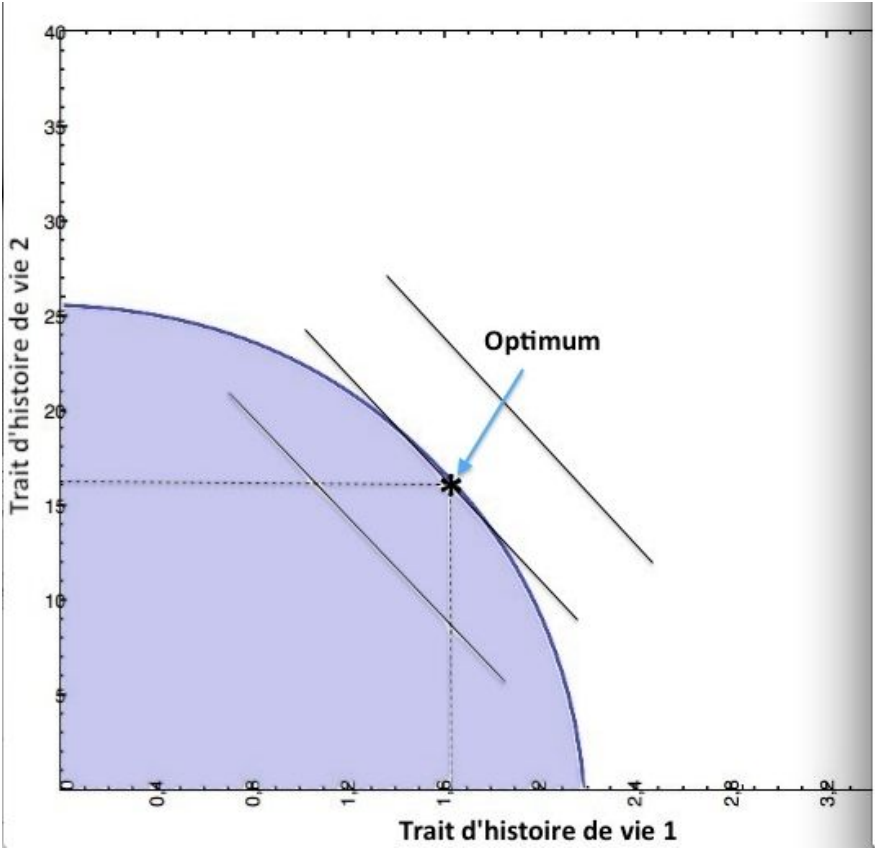
CONVEX SLOPE

These have a gentle upper section and steep lower section.

How would the contour lines be spaced here?

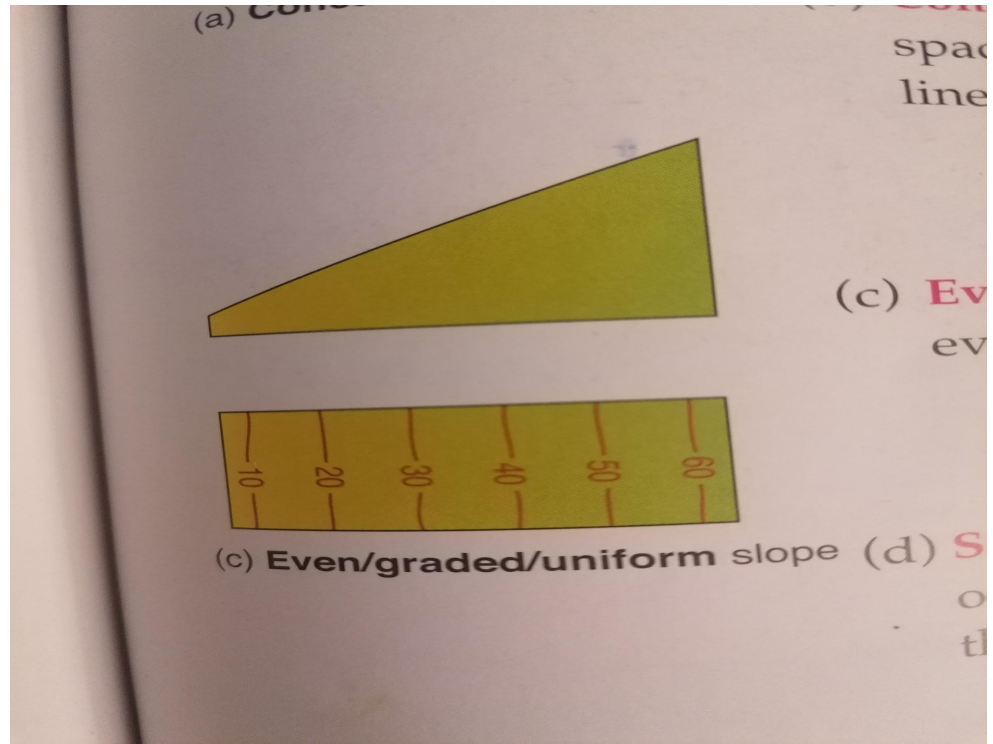
CONVEX SLOPE





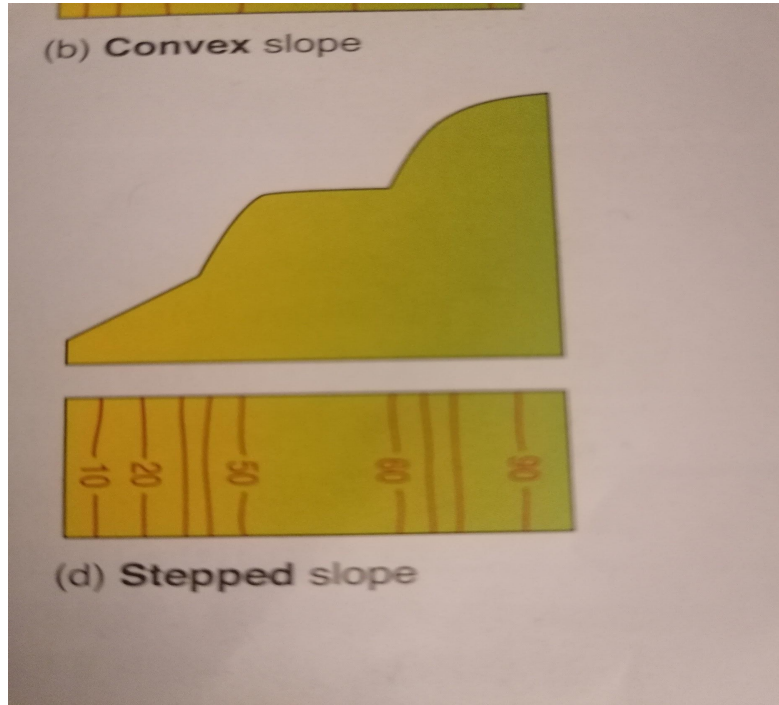
EVEN OR GRADED SLOPES

These have lines that are spaced evenly



STEPPED SLOPES

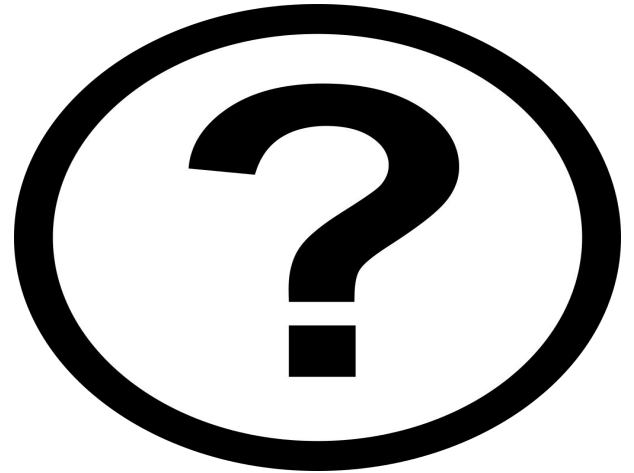
These have a combination of steep and gentle slopes throughout.



QUICK RECAP

Explain three ways of representing height on a map.

Name and explain four different slope types and how they are represented by contour lines on a map.



AREA ON A MAP

Each grid on your map = 1km squared on ground.

You must be able to measure

Regular Area

Irregular Area

REGULAR AREA

Count the number of grids along the top .

Count the number of grids that go down the side.

Multiply the two figures. This is the area of your map.

IRREGULAR AREA

Count and tick any box that is Full.

Count and tick any box that is half full or more.

Total = km squared.

region in Carlow

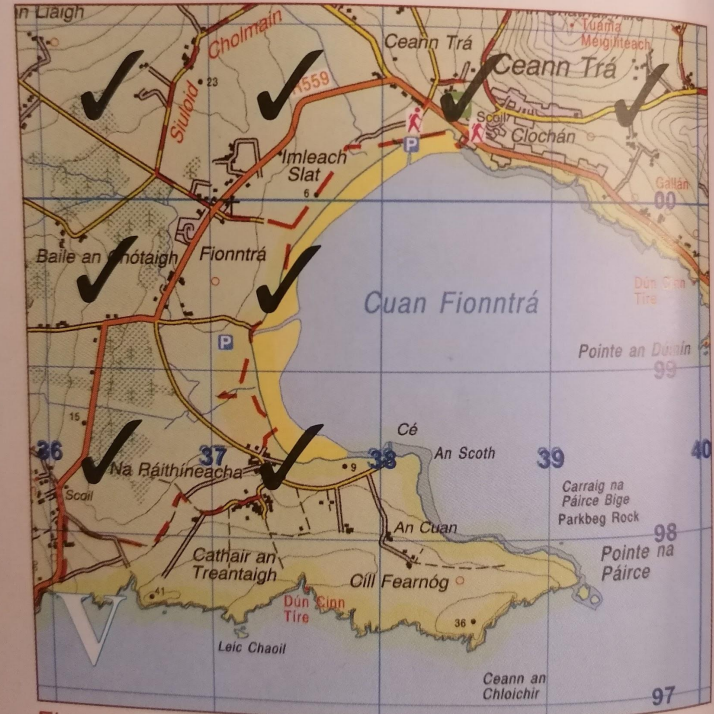


Fig. 16 OS map of Ventry Harbour

0.5 SKETCH MAPS

WHAT YOU NEED

Colouring pencils

Ruler

Pencil

HOW TO DRAW A MAP TO HALF SCALE

Measure across the top with a ruler and divide your answer by two.

Measure up the side and divide your answer by two.

Using graph paper (if possible) draw the frame of your map using these measurements.

DIVIDE YOUR MAP

Using a pencil lightly divide both your map and the 0.5 map into three evenly spaced rows and columns.

This will help you keep your items in the correct position.

PUT A TITLE AND SUBZONE LETTER ON YOUR MAP.

Title for example:

Sketch Map of Waterford.

Sub Zone Letter:

S

COASTLINE

If there is a coastline on your map you must mark it in even if not asked.



STICK TO THE QUESTION.

Only mark in and label things you have been asked to draw in.



USE A KEY/LEGEND

This will allow us to know what the items on your sketch map represents. (use colour code) Example for a lake use blue.



DRAW A NORTH ARROW AND STATE THE SCALE

If scale of map is 1:50,000

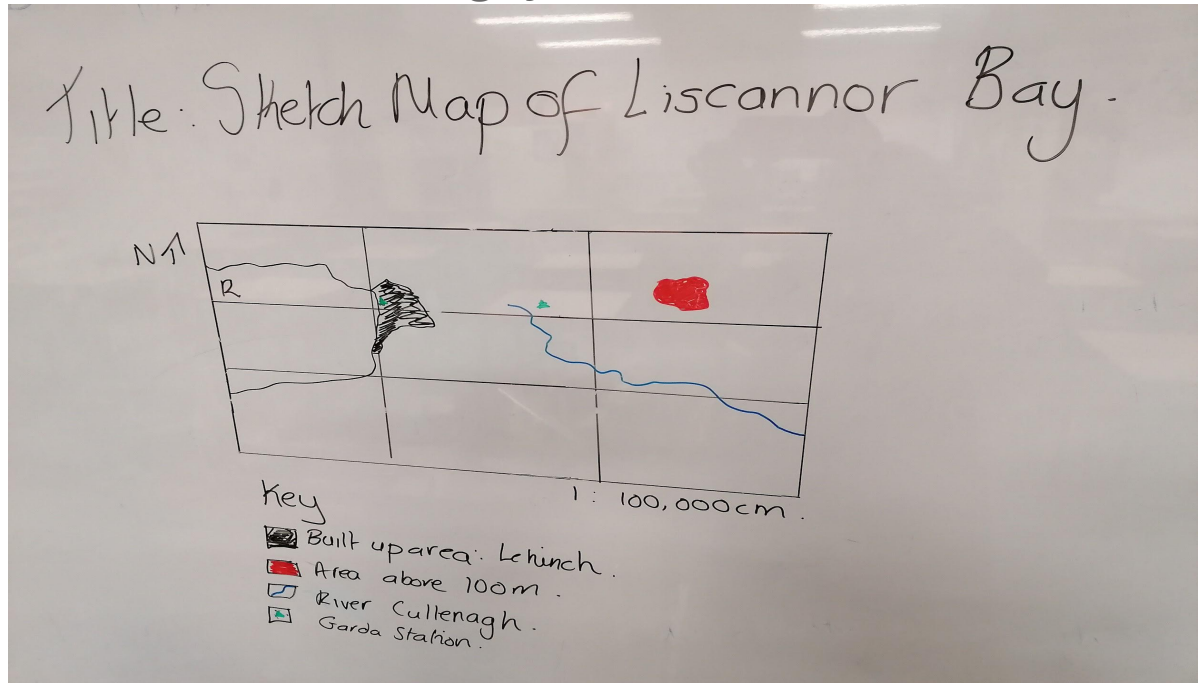
Then yours is half the scale so 1:100,000

Or

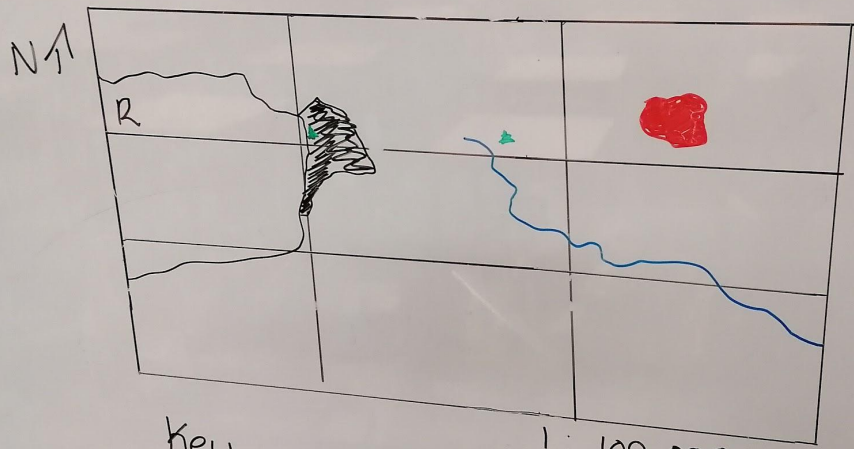
1cm =1km

KEEP IT NEAT, CLEAR AND COMPACT





Roads, rivers and rails etc,. Should be drawn with a single line and colour coded accordingly.



Title: Sketch Map of Liscannor Bay.



Key

-  Built up area: Lchinch.
-  Area above 100m.
-  River Cullenagh.
-  Garda Station.

1 : 100,000 cm.

PRACTISE

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Question 17

Sketch Map of Tralee

SYMBOL RECOGNITION

1. Relief & Landscape
2. Antiquities
3. Settlements & Patterns
4. Land Use and Function

RELIEF & LANDSCAPES

Bays

Headlands

Hills

Mountains

Vshaped Valleys

Slope Type

Drainage patterns

River stages

ANTIQUITIES

These are represented by a red dot and red writing on an OS Map. They represent different times in history of settlement of the area.

STONE AGE

Megalithic Tombs

Stone Circles

Cairns

Rock Art

Middens



BRONZE AGE

Standing stones

Dolmens

Fulacht Fia

Wedge Tombs



IRON AGE

Crannog

Hillfort

Ring Fort

Ogham Stone



EARLY CHRISTIAN ERA

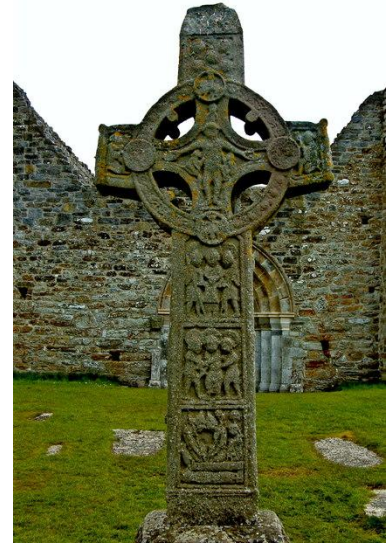
High cross

Holy Well

Monastic site

Round Tower

Place names also a symbol of early christian settlers)
example Cill/Kill



NORMAN

Castle

Keep

Motte

Abbey



PLANTATION

Fortified houses

Demense

Towns with landlord's name e.g Randalstown, Charleville.



SETTLEMENT PATTERNS

LINEAR/ RIBBON

This is the most common pattern seen in rural areas.

Houses run along either side of the roads.

Linear settlement develops because services such as electricity, water and sewage are installed more cheaply along roadsides.

CLUSTERED/ NUCLEATED

Houses are close to each other.

May occur because people in the past settled around a water source—a spring or a well— or in an easily defended site (e.g a castle)

People used to cluster close to landlord sites. Over time many grew in size to become villages.

NUCLEATED

These occur when the smaller clusters of houses grow into a more built up area with a definite function. They are shaded in, in grey on our maps.

DISPERSED SETTLEMENT

In this case houses are scattered along the map.

There are often isolated houses.

This is due to relief, soil, altitude and access to water supply.

ABSENCE OF SETTLEMENT

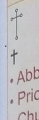







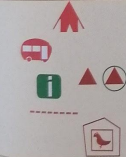



This is due to annual flooding, areas of poor drainage; northerly aspect; steep high ground; good agricultural land where there are many large fields.

LAND USE AND FUNCTION

Land use = what is actually built or found on the land e.g
a school or a farm

Function= what service the building/ land provides =
education, agriculture.

FUNCTION ON A MAP

OS Map Symbol	Land use	Function (Ricepots)
 <ul style="list-style-type: none"> Abbey Priory Church 	Cathedral – modern Church – modern Abbey – historic Priory – historic Church – historic	Religious
	Racecourse Golf course Boating activities	Recreation
Demesne  	Estate house Houses Built-up area	Residential
Ind. Est.  	Power station (thermal) Power station (HEP) Industrial estate	Industry (secondary economic activities)
Sch Coll	School College, University	Education
	Fishing port Farm land Forest (coniferous)	Economic activities (primary)
	Quayside Shipping channel National Parks	Port Open spaces
	Camping site Caravan site Hostels Marina, slipway Tourist information office Walking path Nature reserve	Tourism
	Motorway National Primary route Regional road Railway Station Airport Canal	Transport (historic transport land use)
Fire St  Hosp 	Garda station Fire station Communications mast Hospital Electricity transmission line (pylon)	Services

AERIAL PHOTOGRAPH

Location on
vertical photos.

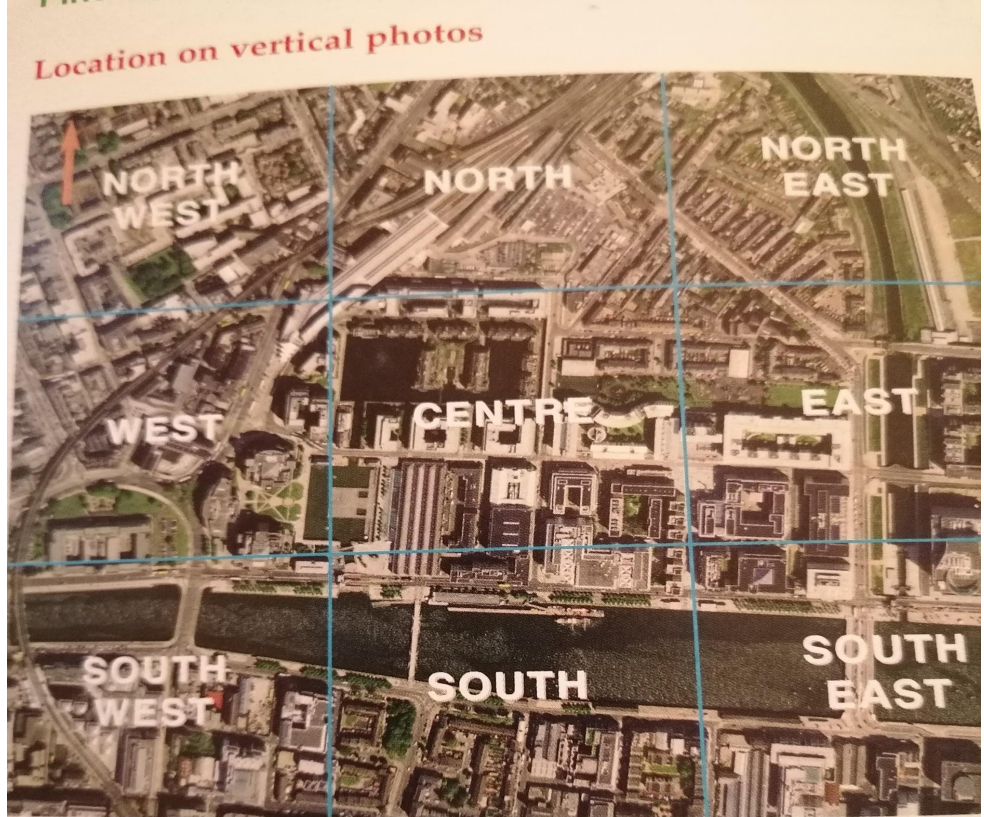


Fig. 38 Vertical photo of Dublin city

Location on oblique photos

AERIAL PHOTOGRAPH

Location on oblique
Photos.



WHAT CAN WE LEARN FROM PHOTOGRAPHS?

Land use

Function

Town street layout

House types

Traffic management & congestion

TRAFFIC CONGESTION BLACKSPOTS

Junctions]schools

Shopping centre exits

Narrow streets

Streets with parking

Churches

Traffic lights

METHODS TO SOLVE TRAFFIC CONGESTION

Roundabouts

one-way streets

Yellow boxes

Bus lanes

Double yellow lines

Pedestrian streets

Off street parking

Bypasses

Car parks

Traffic lights

Park and ride centres