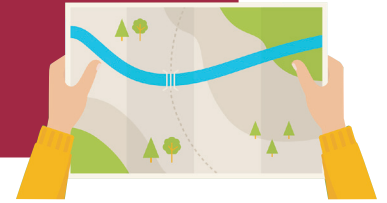


# 5. Geographical Skills: Ordnance Survey (OS) Maps



In this chapter you will develop your abilities in relation to the 9 key skills of map reading: Scale, Legend / Key, Direction, Area, Grid references, Height, Distance, Slope, Sketch maps.

## Scale

As you know, maps can be large or small scale.

Large scale maps show a large amount of detail over a small area.

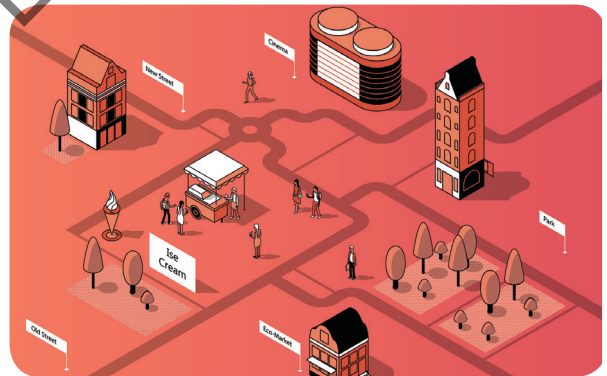
Small scale maps show a small amount of detail over a large area.



1. Look at the following maps. Decide if you think they are large scale or small scale. Write your answer below each map.



A. \_\_\_\_\_



B. \_\_\_\_\_



C. \_\_\_\_\_



D. \_\_\_\_\_

## Legend / Key

The legend / key is used to identify items on a map without cluttering the map itself. Using your creativity, keen eye and drawing skills, complete the following question based on the map below.



2. In the Legend / Key box below the map, draw the symbols used for the following items found on the OS map.
  - (a) Any physical landform (river, mountain).
  - (b) An urban area.
  - (c) Any recreational activity (viewing point, walking route).
  - (d) Any transport route (roadway, train line).
  - (e) An ancient monument (antiquity).
  - (f) A car park and a post office.

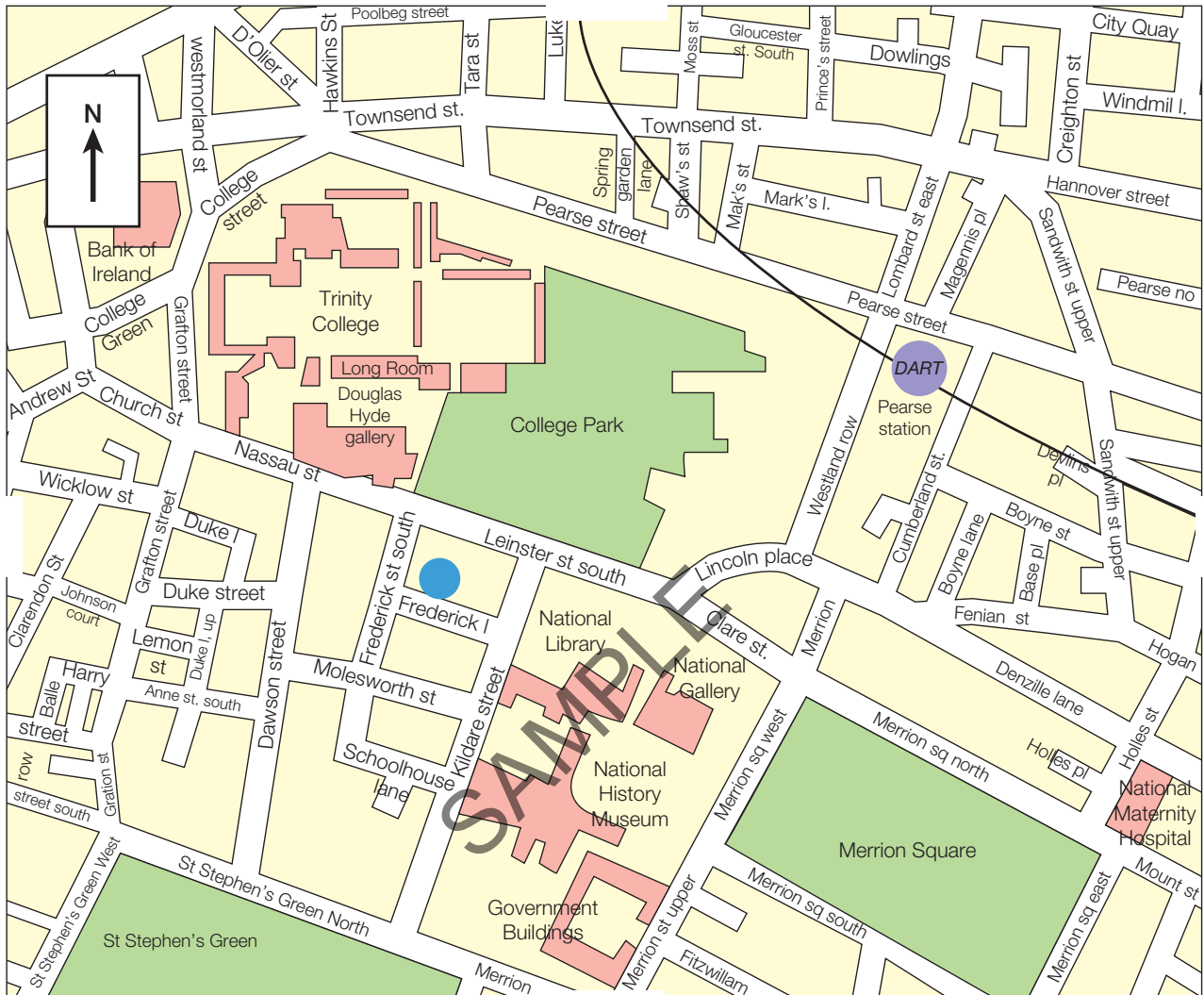


**Legend / Key:**

## Direction

We use directions every day to figure out where we've been, where things are and where we're going!

### 3. Examine the street map of Dublin which shows a section of central Dublin.



#### Follow these directions:

- Walk along Merrion Square North in a north-westerly direction until College Park is to the north.
- Cross to the opposite side of the street and walk in a south-westerly direction.
  - (a) What building will you pass first on your left? This building is sitting in a south-easterly direction. Circle the correct answer:  
 National Library                  National History Museum                  Trinity College
  - (b) If you walked from the centre of Merrion Square to Trinity College, in which direction would you walk? \_\_\_\_\_
  - (c) Pearse Street Dart station is in which direction from St. Stephen's Green? \_\_\_\_\_

#### Extend Yourself!

Carry out some online research and then write a five-minute TED talk on why the Earth has a magnetic field and how it impacts our navigation tools.

**Area**

4. As you now know, each box on an OS map represents 1km<sup>2</sup> in area.  
 (a) With this in mind, work out the entire area of the OS map below. \_\_\_\_\_



You know that when measuring the area of an irregularly-shaped area, you count the grid squares that are half full or more.

- (b) Estimate the area of water in the map above. \_\_\_\_\_

**Grid references**

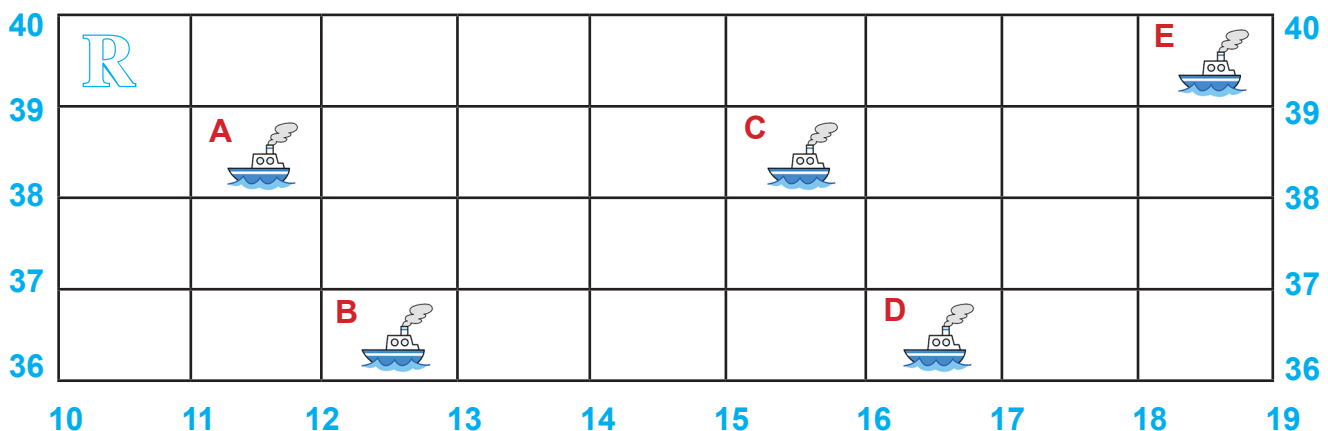
5. You also know that OS maps are split up using a grid system. You can identify things on maps using the following: **LEN** – Letter, Easting, Northing.

**Subzone letter:** Found on the map.

**Eastings:** Numbers along the bottom. Always choose the number to the left of your item.

**Northings:** Numbers along the side. Always choose the number below your item.

- (a) Examine the grid below and give a four-figure grid reference for each of the ships.



A: \_\_\_\_\_ B: \_\_\_\_\_ C: \_\_\_\_\_

D: \_\_\_\_\_ E: \_\_\_\_\_

(b) Sometimes you might want to be a little more specific, so you then use six-figure grid references.

Using the map of Howth on the previous page, figure out what is located at the following grid references.

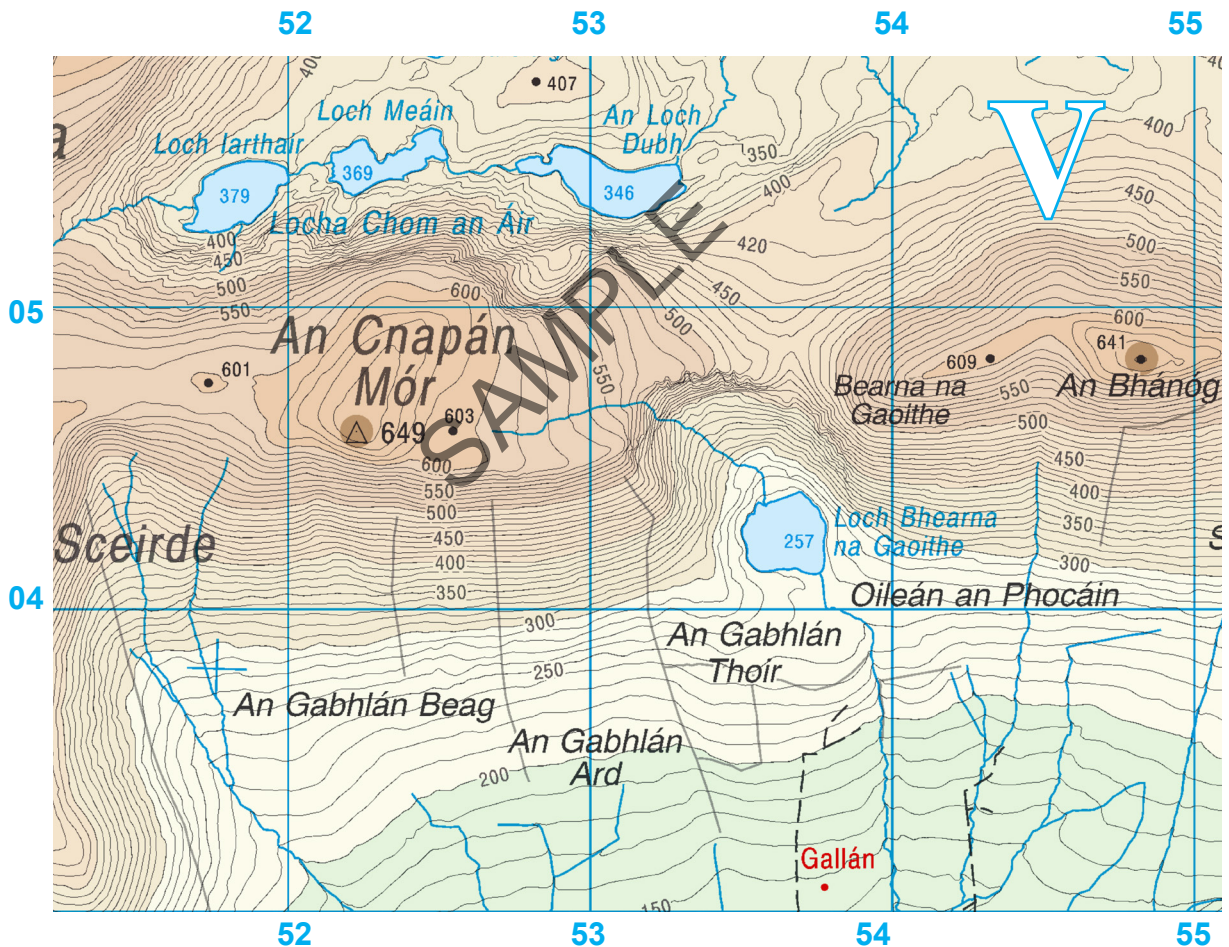
(i) O 282 394: \_\_\_\_\_

(ii) O 298 364: \_\_\_\_\_

### Height

Height on an OS map is a funny thing considering maps are flat!

6. Look carefully at the OS map below. Identify five ways height is shown on this map. Give a six-figure grid reference for each and draw its symbol.

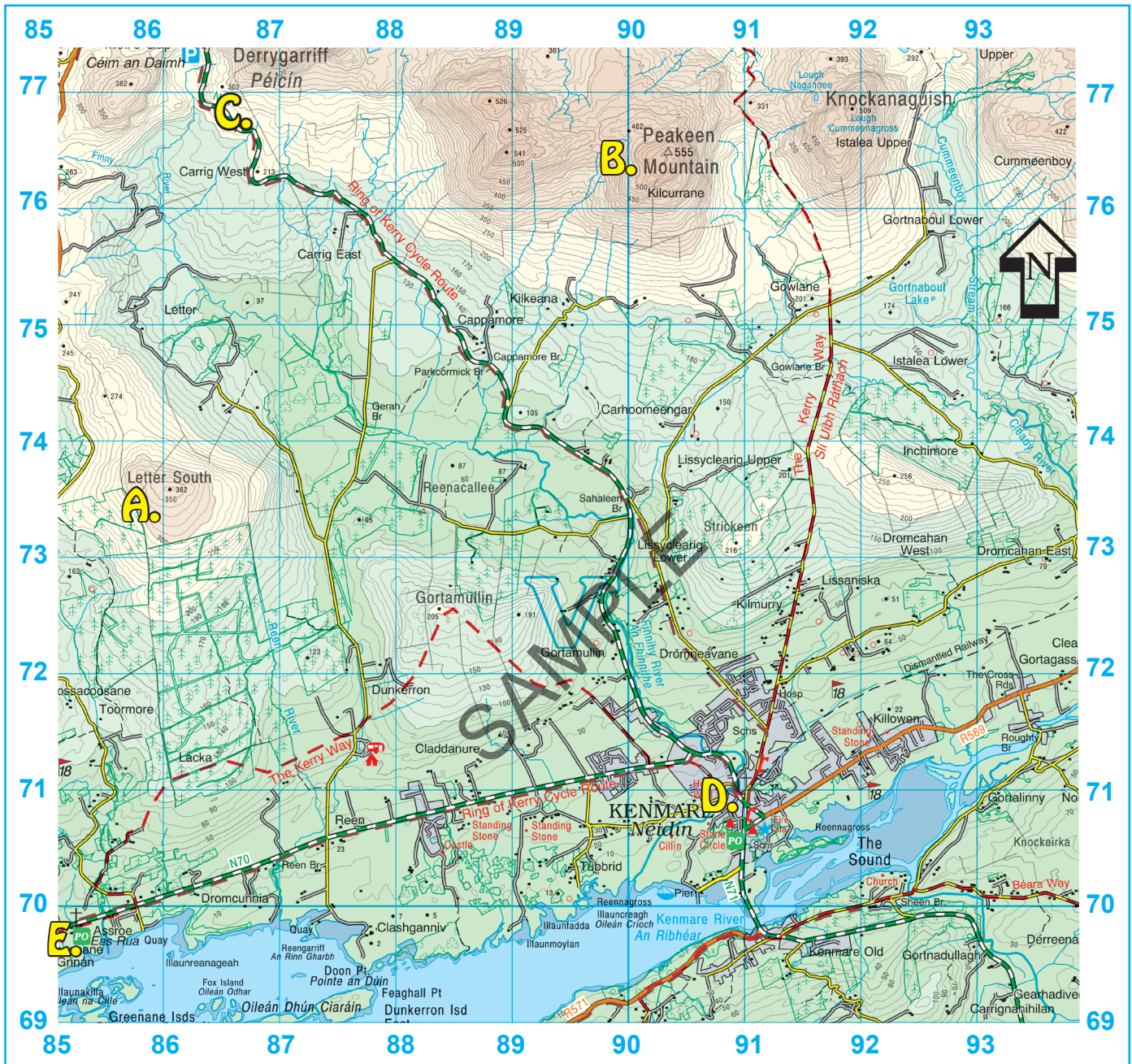


Height method	Symbol	Grid reference
1.		
2.		
3.		
4.		
5.		

### Distance

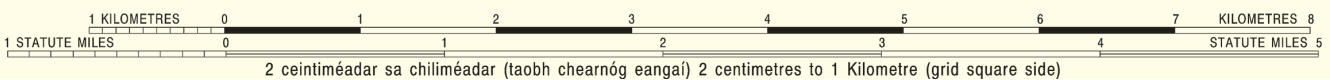
On maps, distance, like area, can be measured in two different ways – both using a piece of paper. Look at pages 57 - 58 of your textbook for a reminder of how to do this.

7. Use the map and scale below to answer the questions.



SCALE 1:50 000 SCÁLA 1:50 000

[www.osi.ie](http://www.osi.ie)



- (i) The straight-line distance between the highest point at A and B = \_\_\_\_\_
- (ii) The straight-line distance from the highest point at A to the post office near D = \_\_\_\_\_
- (iii) The curved distance along the National Secondary road from C to D = \_\_\_\_\_
- (iv) The curved-line distance along the Ring of Kerry cycle route from D to E = \_\_\_\_\_

## Slope

As with height, it is amazing that we can spot slopes of different kinds... on a map which is on a flat piece of paper!



8. Using page 61 of your textbook, answer the following questions:

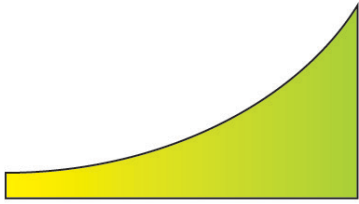
(a) In the answer grid provided below, match each letter in Column X with the number of its pair in Column Y. One pair has been completed for you.

A	B	C	D
3			

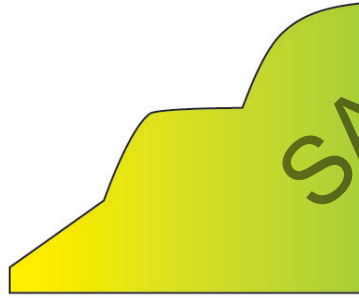
X

Y

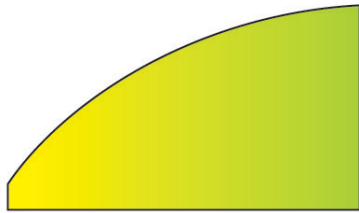
**A**



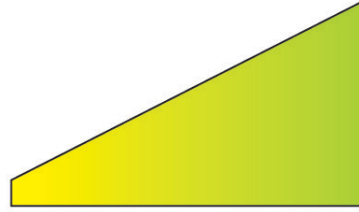
**B**



**C**




**D**




**1**



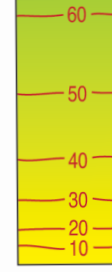
**2**



**3**



**4**



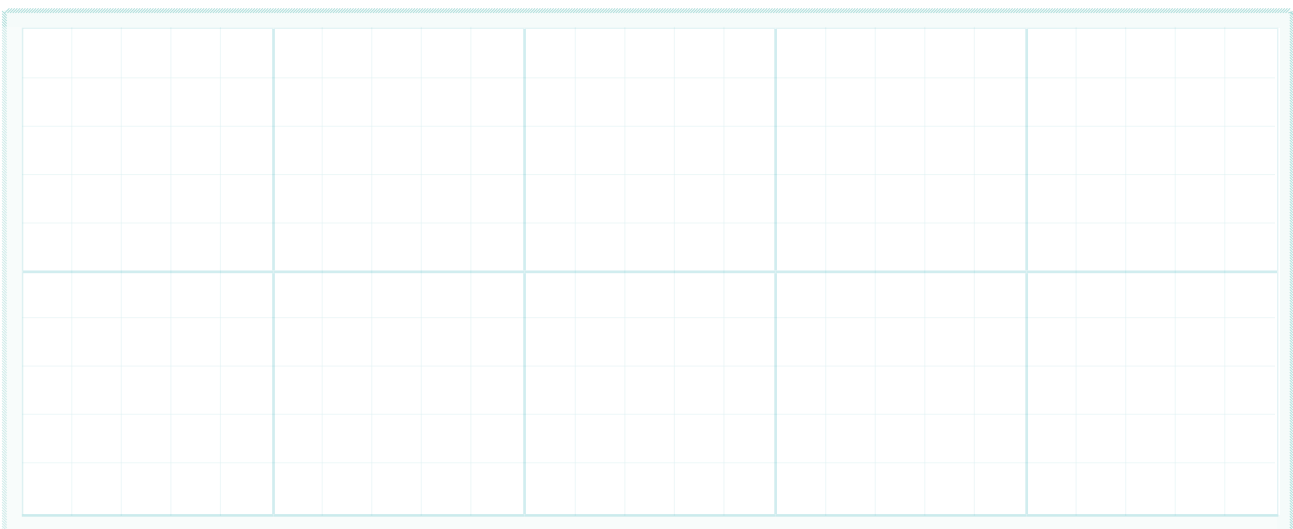
(b) What type of slope is C? \_\_\_\_\_



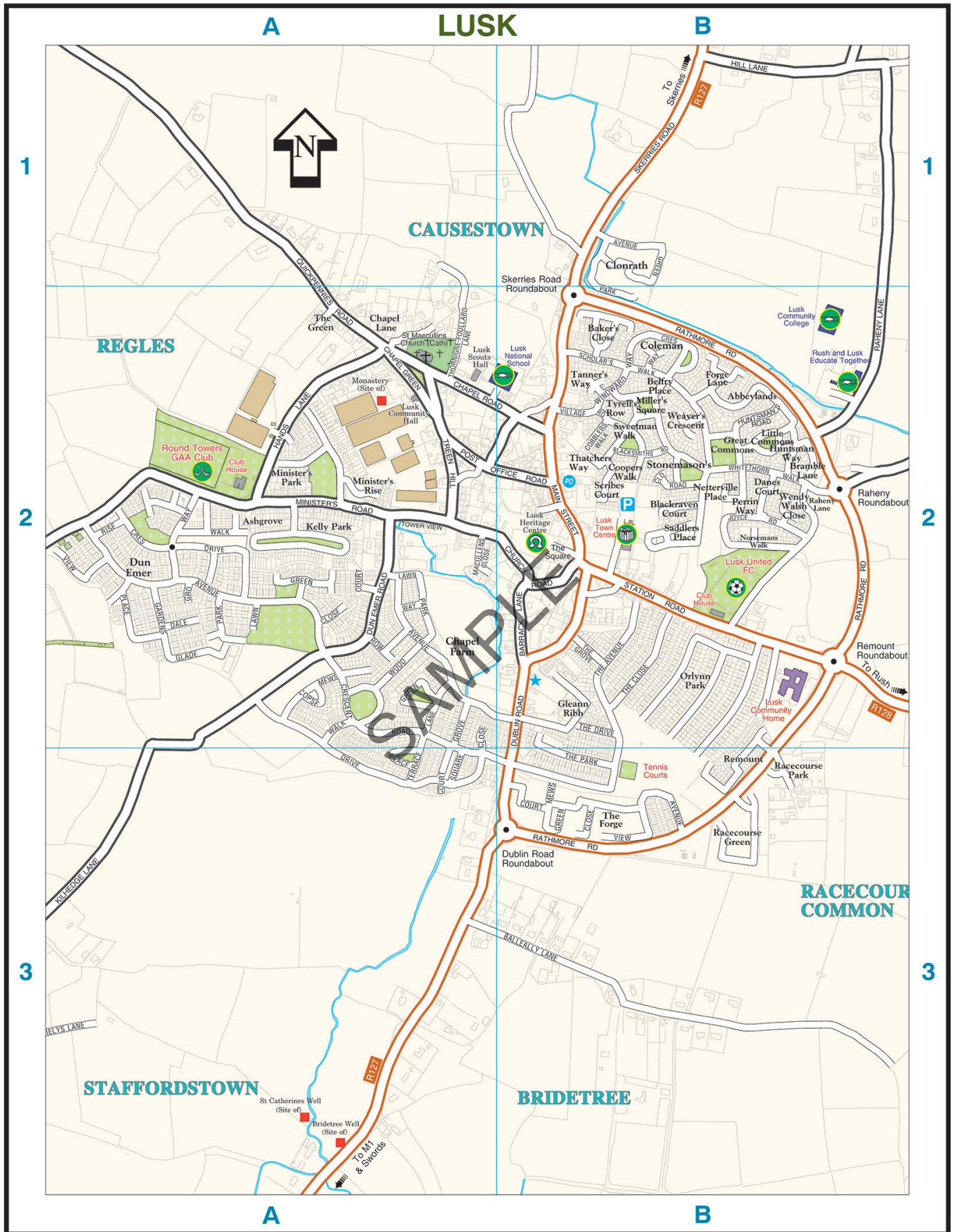
Sketch maps



9. Using the map above draw a sketch map. Mark and identify the following on it: (a) The built-up area of Portlaoise. (b) An area of coniferous trees. (c) The entire route of the M7. (d) A Garda station. (e) Any river. (f) A post office.





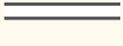

















1: 10,000 OS map of Lusk, North County Dublin.

## LEGEND / EOCHAIR EOLAIS

	<b>MOTORWAY</b> MÓTARBHEALACH		<b>LIGHTHOUSE</b> TEACH SOLAIS
	<b>NATIONAL PRIMARY ROAD</b> BÓTHAR PRÍOMHA NÁISIÚNTA		<b>ONE WAY STREETS</b> SRÁIDEANNA AONTREO
	<b>NATIONAL SECONDARY ROAD</b> BÓTHAR TÁNAISTEACH NÁISIÚNTA		<b>MAINLINE RAIL STATION</b> STÁISIÚN TRAENACH PRÍOMHLÍNE
	<b>REGIONAL ROAD</b> BÓTHAR RÉIGIÚNACH		<b>ART GALLERY</b> GAILEARAÍ EALÍNE
	<b>MAIN ROADS / STREETS</b> PRÍOMHBHÓITHRE / PRÍOMHSHRÁIDEANNA		<b>SAMPLE LANDMARK BUILDING</b> FOIRGNEAMH SAINCHOMHARTHA SAMPLACH
	<b>OTHER ROADS / STREETS</b> BÓITHRE / SRÁIDEANNA EILE		<b>CINEMA</b> PICIÚRLANN
	<b>NARROW STREET / PRIVATE ROADS</b> SRÁID CHÚNG / BÓITHRE PRÍOBHÁIDEACHA		<b>GAELIC GROUND</b> PÁIRC NA NGAEL
	<b>ROAD UNDER CONSTRUCTION</b> BÓTHAR Á DHÉANAMH		<b>LIBRARY</b> LEABHARLANN
	<b>PEDESTRIAN STREETS</b> SRÁIDEANNA COISITHE		<b>MUSEUM</b> MÚSAEM
	<b>GREEN AREA</b> LIMISTÉAR GLAS		<b>RUGBY GROUND</b> PÁIRC RUGBAÍ
	<b>WOODED AREA</b> LIMISTÉAR FAOI CHRAINN		<b>TOURIST OFFICE</b> OIFIG TURASÓIREACHTA
	<b>COMMERCIAL / INDUSTRIAL</b> TRÁCHTÁLA / TIONSCLAÍOCH		<b>SHOPPING COMPLEX</b> COIMPLÉASC SIOPADÓIREACHTA
	<b>HOSPITAL / SCHOOL</b> OSPIDÉAL / SCOIL		<b>SCHOOL / COLLEGE</b> SCOIL / COLÁISTE
	<b>BUILDINGS GROUPED</b> FOIRGNIMH LE HAIS A CHÉILE		<b>SOCCER GROUND</b> PÁIRC SACAIR
	<b>WATER</b> UISCE		<b>THEATRE</b> AMHARCLANN
	<b>HOSPITAL</b> OSPIDÉAL		<b>VISITOR CENTRE</b> IONAD CUAIRTEOIRÍ
	<b>FIRE STATION</b> STÁISIÚN DÓITEÁIN		<b>GOLF COURSE</b> GALFCHÚRSA
	<b>GARDA (POLICE)</b> GARDA SÍOCHÁNA		<b>CAMPING SITE</b> LÁITHREÁN CAMPÁLA
	<b>PARKING</b> IONAD PAIRCEÁLA		<b>CARAVAN SITE</b> LÁITHREÁN CARBHÁN
	<b>POST OFFICE</b> OIFIG PHOIST		<b>RAIL LINE</b> LÍNE IARNRÓID
	<b>CHURCH</b> EAGLAIS		<b>COUNTY BOUNDARY</b> TEORAINN CHONTAE
	<b>MONUMENT / STATUE</b> SÉADCHOMHARTHA / DEALBH		

SCÁLA 1:10,000 / SCALE 1:10,000



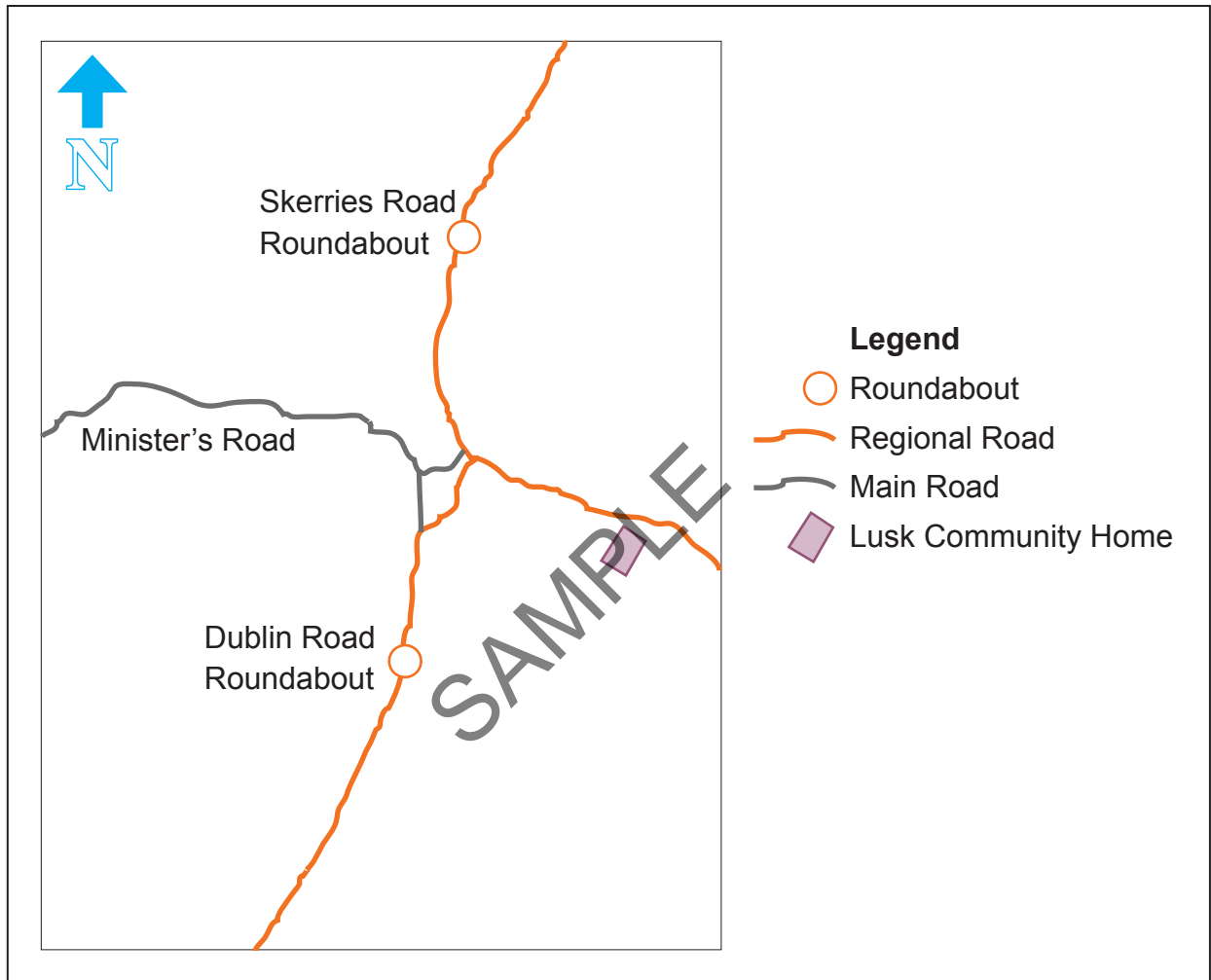
10 ceintiméadar sa chiliméadar (taobh chearnóg eangaí) 10 centimetres to 1 Kilometre (grid square side)

Legend for OS map of Lusk, North County Dublin.

**Sketch it out!**

10. (a) Complete the sketch map of Lusk below by showing and naming each of the following:

- The full route of Rathmore Road.
- A post office.
- Lusk Heritage Centre.
- One named recreational area.



(b) Look again at the OS map of Lusk on page 44. Measure the length of Rathmore Road, in kilometres, from the Raheny Roundabout to the Dublin Road Roundabout:

\_\_\_\_\_

**Looking closely...**

11. Using the town plan of Dundalk (scale 1: 1000) to the right, answer the following questions.



Town plan of Dundalk

1. Is this town plan a large scale map or a small scale map?  
\_\_\_\_\_
2. Count the number of street lights on the map shown by the LS (lamp standard) symbol. \_\_\_\_\_
3. What do the numbers 6-7 and 1-2 and 8 and 9 represent?  
\_\_\_\_\_
4. What information tells you that Francis Street is a shopping street in Dundalk?  
\_\_\_\_\_
6. At what building number is the bank located? \_\_\_\_\_
7. Name the street on which the Mall is located. \_\_\_\_\_
8. Colour in the town plan map above to show the following land uses:  
Roads = Grey      Shopping area = Pink      A Bank = Yellow  
Houses = Blue      Open space = Green      Footpath = Red

**OS Maps Cloze Test**

12. Using your knowledge of OS maps, fill in the missing words in the paragraphs below.

An 1. \_\_\_\_\_ is a collection of maps. Maps can be large or small 2. \_\_\_\_\_. A map with a scale of 1:10,000 shows 3. \_\_\_\_\_ detail than a 1:50,000 scale map. Symbols used on OS maps are explained on a 4. \_\_\_\_\_ or key.

Height on maps can be shown by black dots called 5. \_\_\_\_\_ heights. Height can also be shown by triangulation 6. \_\_\_\_\_, colour coding and by lines called 7. \_\_\_\_\_ lines. Hill walkers refer to 8. \_\_\_\_\_ information to find out about height on the landscape.

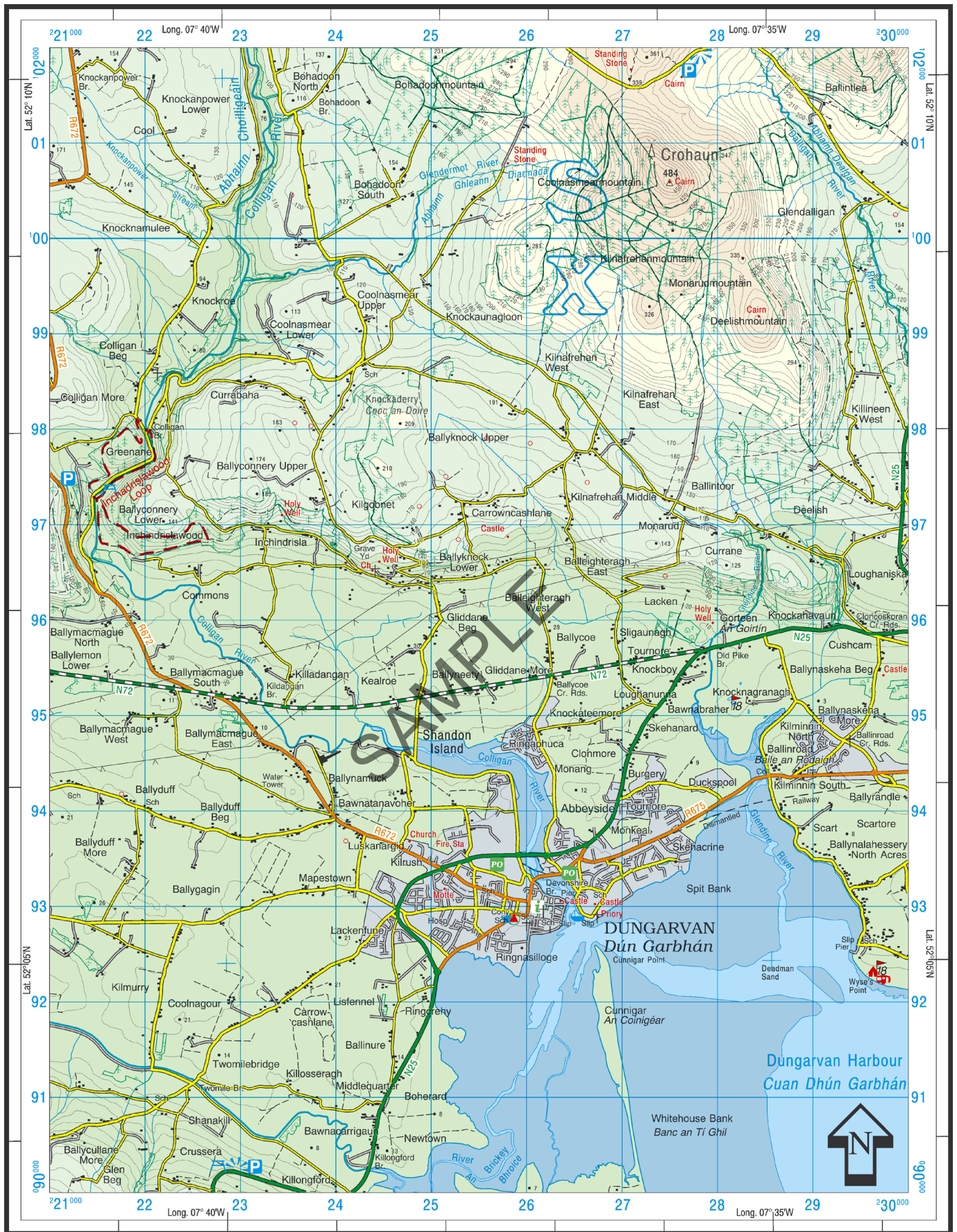
The closer contour lines are to each other, the 9. \_\_\_\_\_ a slope is. A slope that is steep at the top but gentle at the base, like a child's slide, is a 10. \_\_\_\_\_ slope. A slope that looks like a set of stairs is called a 11. \_\_\_\_\_ slope.

Locating places on an OS map is done by using four-figure and six-figure 12. \_\_\_\_\_ references.

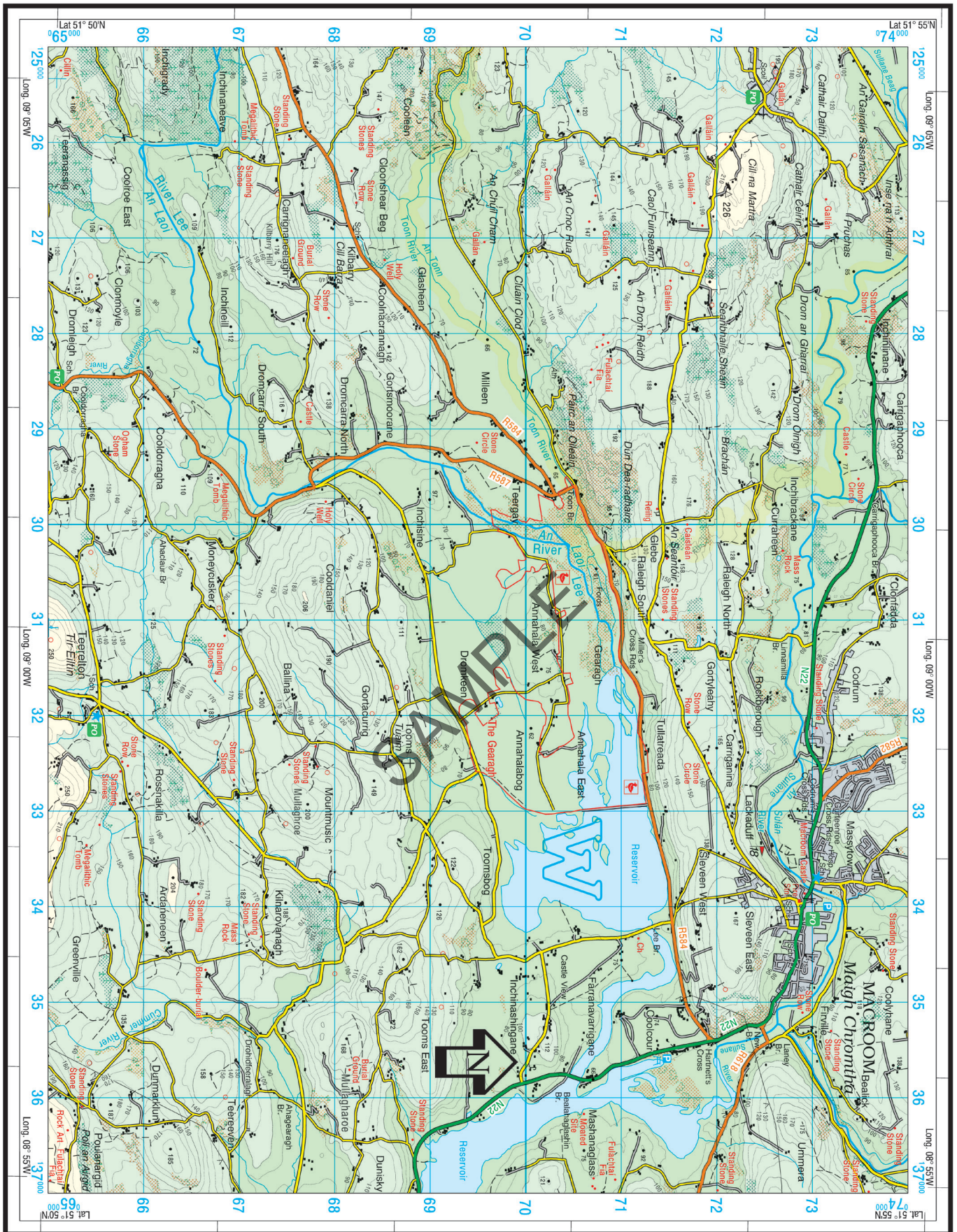
Vertical lines on the map are called 13. \_\_\_\_\_. Horizontal lines are called 14. \_\_\_\_\_.

Read the numbers along the bottom of the map from left to 15. \_\_\_\_\_. Read numbers on the side of the map from 16. \_\_\_\_\_ to top. The sub-zone 17. \_\_\_\_\_ tells you in which part of the country the map is located. Distance on a map can be straight line or 18. \_\_\_\_\_ following a road or railway.

(Cloze tests are available to download @ [mentorbooks.ie/resources](http://mentorbooks.ie/resources))



OS map of Dungarvan in County Waterford.



OS map of Macroom and its hinterland in County Cork.

### Let's Get Exam Ready!

#### Sample question and answer

13.(a) Examine the OS map of Macroom on page 49. Indicate whether each of the following statements is true or false by circling the correct option in each case.

- (i) The N22 is a National Secondary Road. True / **False**
- (ii) The total area of the Ordnance Survey map is 120 km<sup>2</sup>. True / **False**
- (iii) Dromkeen (W 31 69) is located to the north of Ballina (W 31 67). **True** / False

(b) In what direction would you travel (as the crow flies) if you were to take the following journeys on the map:

Starting point	Destination	Direction
W 369 689	W 353 725	<i>North west</i>
W262 661	W 289 670	<i>North west</i>
Post office in Macroom	Post office near Teerelton	<i>South south west</i>
Northernmost point of the N22	Church in Macroom centre	<i>East south east</i>

### Now you try!

Examine the OS map of Dungarvan on page 48.

(a) Draw a sketch map of the area shown on the OS map using the graph paper on page 51.

On your sketch map show and label each of the following:

- The coastline.
- The built-up area of Dungarvan.
- An area of land above 300 metres.
- A national primary road.
- The highest point on the map.
- An electricity transmission line.

(b) In the spaces provided, match each of the letters in Column X with the number of its pair in Column Y. One match has been completed for you.

Column X
A S 275 006
B X 277 958
C X 249 952
D S 246 007

Column Y
1 Mixed Woodland
2 Spot height 154
3 Cairn
4 Crossroads

X	Y
A	
B	
C	4
D	

SAMPLE



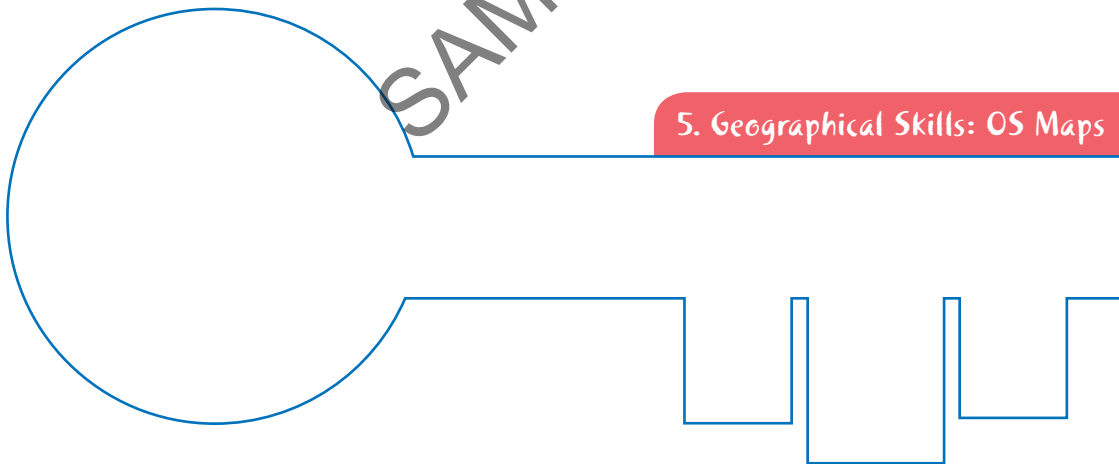
### My Learning Resilience Chart

14. If you feel that you need help with any of the content in this chapter, use the guidelines on page 8 to help you complete the chart below.

<p>What do I need help with?</p>	<p>What will I do?</p>
<p>Who can help me?</p>	<p>Where will I look to find what I need?</p>

### Geo-literacy

In the key below write in any key terms you have learned in this chapter:



SAMPLE



## CBA Notes

### CBA 1: Geography in the News

Have topics in this chapter been mentioned in the news recently? If so, when and why? Give the date and a brief description of what happened.

---



---



---



---



---

### CBA 2: My Geography

Is there any link between this topic and the area surrounding your school / hometown? If so, briefly describe.

---



---



---



---



---

Teacher Feedback:

SAMPLE

Date:

Teacher Signature:

Parent / Guardian Signature: