COORDINATES AND BEARINGS

<u>MTH 317-b</u>
Having investigated navigation in the world, I can apply my understanding of bearings and scale to interpret maps and plans and create accurate plans, and scale drawings of routes and journeys.

<u>MTH 318-a</u>
I can use my knowledge of the co-ordinate system to plot and describe the location of a point

Pupils should be able to:

- Understand the use of co-ordinates to locate a point on a standard grid.
- Plot points and specify co-ordinates in the first quadrant.
- Use the terms co-ordinates, axis and origin correctly.
- Complete specified quadrilaterals given the co-ordinates of 3 vertices.
- Plot and specify co-ordinates in all four quadrants.
- Draw pictures by connecting vertices dot to dot

PUPILS SHOULD COMPLETE THE FOLLOWING EXERCISE AND ASSESS THEIR PROGRESS BY TICKING ONE OF THE OPTIONS FOR EACH TOPIC IN THE TABLE BELOW

	DEVELOPING	CONSOLIDATING	SECURE
Coordinates (QUESTIONS 1-3)			
Bearings (QUESTIONS 4 – 5			
Scale drawing (QUESTION 6)			

Mymaths lessons: Library/ Algebra/ Coordinates 1 and 2
Library/Shape /Scale and Similarity/Scale Drawing and Map Scales
Library/ Shape/ Angles/Bearings

SELF EVALUATION EXERCISE

1. Draw a coordinate diagram with the x-axis from 0-6 and the y-axis from 0-8.
   Label your diagram with the x, y axes and the origin clearly marked.

2. a) On your diagram from question 1, plot the points   (0, 2) (2,1) (5,5)

   b) What would be the coordinates of the fourth point to make the shape into a
      rectangle?

3. a) Write down the coordinates of all
     the points.

   b) Which two points share the same y
      value?

   c) Which two points share the same x
      value?

   d) If the point u was reflected in the
      y axis, write down the coordinates
      of the image.
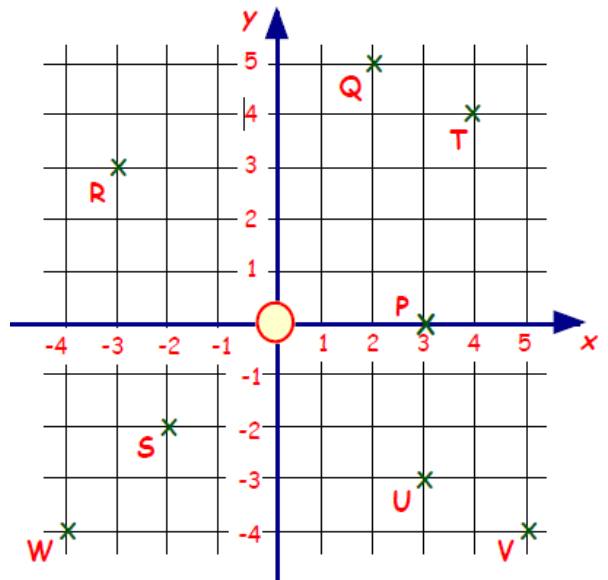
4. A helicopter travels on bearing of 125° from Aberdeen to get to an oil rig in the
   North Sea. What bearing will he travel on during the return journey?

5. Using sentences describe the journey shown
   from A to B to C using the words north,
   bearing and distance.
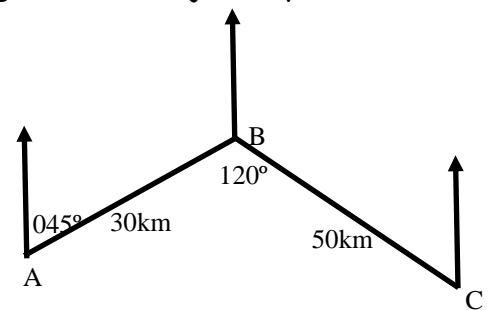
6. The diagram shows two landmarks in a city.

   a) Measure the distance between them with a
   ruler (round to nearest centimetre).

   The scale is 1:40000.
   Calculate the real distance between
   the two landmarks.