Maps and Coordinates Home Information Sheet

Second Level (c)

Through practical activities which include the use of technology, I have developed my understanding of the link between compass points and angles and can describe, follow and record directions, routes and journeys using appropriate vocabulary.

MTH 2-17c

Having investigated where, why and how scale is used and expressed, I can apply my understanding to interpret simple models, maps and plans.

MTH 2-17d

I can use my knowledge of the coordinate system to plot and describe the location of a point on a grid.

NMU 2-18a

Over the next few weeks we are going to be learning to:

- Know that they must draw a North arrow at a point before they can mark a bearing from that point
- Give directions using an 8-point compass rose
- Interpret compass bearings on a map
- Give examples of how, where and why scale is used e.g. office plans, extensions, car design, maps
- Interpret simple models, maps and plans in order to calculate the true dimensions of the object(s) shown, e.g. the true length of the office, corridor etc.
- Calculate the true dimensions of an object shown in a scale drawing or model
- Given the true dimensions of an object, make a scale drawing of that object
- Correctly state the coordinates of a point, appreciating that the numbers are written in brackets, *x*-coordinate first, separated by a comma
- Plot a point on a coordinate diagram
- Plot and join points in the correct order to produce shapes/patterns/pictures

Here are some ideas of how you can help me at home!

Home Physical Mapping: Ask children to draw a 'top-down' view of the rooms in your house. Where would the doors and furniture be? What size should they be on the map? The children have to colour the plan using the colours from a physical map i.e. green for floor level, yellow for mid level (desks, chairs etc.) brown for the highest objects in the room. Add grid references along the bottom and left hand side and identify the position of the furniture.

Compass points: Ask child to draw a compass with at least 8 points (N,S,E,W and the 4 in between them). Ask them a series of questions relating to angle and direction. Eg. I am facing North and make a ¼ turn clockwise, where am I facing now?I am facing West and I turn 180º anticlockwise, where am I facing now? I am facing North and make a ¾ turn clockwise where am I facing?

Here are some websites that you may find useful to use with me!

http://www.math-play.com/Coordinate-Plane-Jeopardy/play.swf -Quiz your knowledge of graphs, quadrants and coordinates

http://www.slideshare.net/igrant/4-figure-grid-references - Easy to follow introduction to precise map reading using the 4 figure system.

https://maps.google.co.uk/ - Experiment and estimate with distance and scale (the ruler in the bottom left-hand corner)

Challenge me!

Travel planning: Print out a map from Google (above link) including two familiar locations (e.g. school and home). Draw a grid over the top using the 4 figure system (see above) and plot the coordinates between the two locations. Use the scale to work out the actual distance between each grid line and then use this to calculate distances between other points.