## NcCA = Primary Mathematics Curriculum

## Spatial awareness and location

| Stage 1 | Stage 2 | Stage 3 | Stage 4 |
| :---: | :---: | :---: | :---: |
| (Junior \& Senior Infants) | (1st \& 2nd Class) | (3rd \& 4th Class) | (5th \& 6th Class) |

## Through appropriately playful and engaging learning experiences, children should be able to

| Learning Outcomes | develop a sense of spatial awareness in relation to their bodies and the immediate environment. <br> describe the spatial features of objects and their relative position in space. | use spatial knowledge for the purposes of orientation and navigation. <br> visualise and model location using symbolic co-ordinates. | describe, interpret and record directional instructions and location. <br> compare and classify angles, recognising them as a property of a shape and as a description of a turn. | describe location on the full co-ordinate plane. interpret scale maps and create simple scale drawings. |
| :---: | :---: | :---: | :---: | :---: |
| Mathematical concepts | Everyday language can be used to describe the relative position and direction of objects and people (to other objects and people). | More formal language can help us describe position and direction more precisely, e.g., the language of the compass points. | Directions and locations can be described with increasing precision, using more formal measures of distance and direction ( 60 km east) and simple grid reference co-ordinates (A6). | An exact location on a map can be described and found using co-ordinates. |
|  | Position can be viewed from various vantage points. | The location of objects can be portrayed on a map, with/without a grid system. | There are different ways to think about angles, including: <br> - angles as the corners of 2-D shapes <br> - angles as a measure of turn. | Distances on maps and some plans can be determined using a scale. |
|  | Non-standard units can be useful to give more accurate directions for movement. | A grid system of horizontal and vertical lines, labelled with letters and numbers, can be laid over a map and used to identify locations. | There are 360 degrees in a full turn. <br> The extent of a turn is measured in degrees. <br> Half of a full turn (180 degrees) and quarter of a full turn ( 90 degrees) are used to classify angles. | The relationship between angle measures and compass co-ordinates can be used to plot direction accurately. |
|  | Simple maps and/ or drawings can be used to track the movement of objects. | When drawing maps of locations, it is necessary to think about the relative size and position of key features. | Approximate distances can be calculated by considering the distance represented by each cell of the grid. | The co-ordinate plane has a horizontal x -axis and a vertical $y$-axis. <br> Co-ordinates identify the location of a point. <br> They consist of pairs of numbers, which indicates the distance along the $x$-axis and the $y$-axis respectively. |

