

# Space and 3D Shape

Maths

Year 3

Lesson 1 of 5

Learning Objective		Resources
To be able to read and record the language of position, direction and movement.		Slides Worksheet 1A/1B/1C/1D/1E/1F Blank Battleship Grids 1A/1B Roamers - optional (FSD? activity only) Masking tape or skipping ropes (FSD? activity only)
Teaching Input		
<ul style="list-style-type: none"> <li>Go through the slides with these words on asking the children to explain what each one means: clockwise, anti-clockwise, route, grid, row, column, map, plan, horizontal, vertical. If necessary, go through the explanations on the slides.</li> <li>Show the slide that has a 6 x 6 grid. How would you describe where the star is on this grid? Invite children to share their ideas. Encourage the children to use precise language, e.g. it is two squares right and five up. Repeat with the star in several other positions.</li> <li>Now show the slide that has the same 6 x 6 grid but with the squares numbered on the vertical axis and labelled a/b/c/d/e/f on the horizontal axis. Explain to the children that this labelling helps to be more precise in identifying squares.</li> <li>Show children the labelled grid and ask them to describe now using the co-ordinates how to describe the position of the star.</li> </ul>		
Main Activity		
<p><u>Lower ability:</u></p> <p>Ask children to get into pairs. Give one child a copy of worksheet 1A and the other a copy of worksheet 1B, making sure they don't see the other's sheet. Children to play battleships, using co-ordinates and grid references to locate their opponent's battleships. When they have finished the game, challenge them to describe the differences in position between their battleships and those of their opponent.</p>	<p><u>Middle ability:</u></p> <p>Ask children to get into pairs. Give one child a copy of worksheet 1C and the other a copy of worksheet 1D, making sure they don't see the other's sheet. Children to play battleships, using co-ordinates and grid references to locate their opponent's battleships. When they have finished the game, challenge them to describe the differences in position between their battleships and those of their opponent.</p>	<p><u>Higher ability:</u></p> <p>Ask children to get into pairs. Give one child a copy of worksheet 1E and the other a copy of worksheet 1F, making sure they don't see the other's sheet. Children to play battleships, using co-ordinates and grid references to locate their opponent's battleships. When they have finished the game, challenge them to describe the differences in position between their battleships and those of their opponent.</p>
<p>The Blank Battleships Grids can be used for children to play additional games of their own once they have the hang of the game.</p>		
Fancy something different...?		
<ul style="list-style-type: none"> <li>If you have 'roamers' or 'turtles', demonstrate how to use these. If not, tell children that today they will be human roamers!</li> <li>Challenge children in pairs or small groups to create mazes for the roamers to navigate. This can be done by using masking tape or skipping ropes. Children to then swap their maze with another group who has to programme the roamer (or give verbal instructions) so that it can successfully navigate around the maze.</li> <li>When finished, ask children to discuss how easy it was to send their roamer in the correct directions.</li> </ul>		
Plenary	Assessment Questions	
<p>On the slides, tell children that there is some hidden treasure buried under one of the squares in the grid. Each child takes it in turns to tell you a co-ordinate and then click on it to see if anything happens. Only clicking on the correct square will make the treasure appear!</p>	<ul style="list-style-type: none"> <li>Can the children use appropriate language to describe position?</li> <li>Can they use appropriate language to describe position and movement?</li> <li>Can they use co-ordinates?</li> </ul>	