Position and Direction: Describing Turns 2

Aim:	**Success Criteria:**	**Resources:**
Describe position, direction and movement, including whole, half, quarter and three-quarter turns DfE Ready-to-Progress Criteria: Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations. (1G-2) To describe three-quarter and whole turns.	I can make three-quarter turns. I can describe three-quarter turns. I can make whole turns. I can describe whole turns.	Lesson Pack 3D shapes
	Key/New Words: Starting point, direction, turn, clockwise, anti clockwise, three-quarter turn, whole turn (or full turn).	**Preparation:** 3D Shape Turns Activity Sheets – one per child Diving into Mastery Activity Cards – as required

Prior Learning:	It will be helpful if children have experience making quarter and half turns. Describing Turns 1 has been designed to support this learning.

Learning Sequence

	**Remember It:** Revisit three-quarters and a whole on the Lesson Presentation. Children name the fractions shown in visual representations. They then sort the visual representations into whether they show three-quarters or a whole.	
	**Clockwise or Anticlockwise?** Use the Lesson Presentation to recap clockwise direction. Explain that the opposite direction to clockwise is anticlockwise. Children do not need to name the direction, but they begin to associate clockwise with the movement of hands on a clockface. Children practise moving their whole bodies, hips, arms and feet clockwise and anticlockwise.	
	**Turn It:** For this activity, you may wish to face the same direction as the children to model the turns. Follow the instructions on the Lesson Presentation. Start by holding a finger up and make a three-quarter turn clockwise. Ask children to compare the position of their finger with the hand on the clock face. Return to the starting position and make a full turn. Repeat this by holding up an arm. Children then face the board and predict where they will end up if they make a three-quarter turn. Repeat this with a whole turn. Ask the children what they notice about making whole turns. Can the children make three-quarter and whole turns?	
	**Name that Turn:** The Lesson Presentation uses 3D shapes to demonstrate three-quarter turns and whole turns. Real 3D shapes can be used to support this. Children identify what turns the shapes make using the structure: The _ made a _ turn. Children then predict what shapes would look like after making three-quarter turns and whole turns. Ask the children if all of the shapes will look different and to explain their reasoning. Can the children describe three-quarter and whole turns?	
	**Starting Positions:** The Lesson Presentation shows shapes turning from different starting positions. Ask the children how they would describe each turn: The _ made a _ turn. Can the children describe three-quarter and whole turns?	
	**Find the Turn:** The Lesson Presentation shows 3D shapes in starting positions and their finishing positions. Ask the children which shapes made a three-quarter turn and to explain how they know. Can the children describe three-quarter and whole turns?	
	**Build It:** The Lesson Presentation shows 3D shapes and incomplete models. Ask the children how they would turn the shapes to complete the models. Use real 3D shapes to demonstrate. Can the children describe three-quarter and whole turns?	
	**Describe the Pattern:** Discuss and demonstrate how 3D shapes can be turned to make different patterns. Look at the images of 3D shapes on the Lesson Presentation and discuss how each shape is turning to create the patterns. Invite the children to predict the kind of turns they will see next. Can the children describe three-quarter and whole turns?	

3D Shape Turns: Children complete the differentiated 3D Shape Turns Activity Sheets.

Children look at the starting point of a shape and identify which one of two options show a three-quarter or whole turn. They spot the odd one out in patterns making three-quarter and whole turns. Children then describe how shapes can be rotated to complete two parts of a model and finish sentences describing the turns.

Children look at the starting point of a shape and identify which one of three options show a three-quarter or whole turn. They spot the odd one out in patterns making three-quarter and whole turns. Children then describe how shapes can be rotated to complete three parts of a model and finish sentences describing the turns.

Children look at the starting point of shapes and draw their positions after making a three-quarter or whole turn. They spot the odd one out in patterns making three-quarter and whole turns. Children then describe how shapes can be rotated to complete four parts of a model and finish sentences describing the turns.

Diving into Mastery: Schools using a mastery approach may prefer to use the following as an alternative activity. These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.

Children match the starting and finishing positions of shapes to show whole turns. They continue a pattern and describe the turns made. Children also describe how to turn shapes to complete a model. Children would benefit from manipulating 3D shapes to explore turns.

The children look at a model made from 3D shapes. They check the starting position of each shape and identify if they have been labelled with the correct turns. Children then investigate which shape could have made a different turn and still be correct. Children would benefit from manipulating 3D shapes to explore turns.

The children use their problem-solving skills to investigate an all possibilities challenge. Children are shown a cylinder and are told that one turn was made to reach its finishing position. Children investigate what the starting point could have been and which turns and directions could have been used to reach it. Children would benefit from manipulating 3D shapes to explore the different possibilities.

Check It: Children explain whether answers are correct or incorrect on the Lesson Presentation. They explain their reasoning to their partners.

Exploreit

Makeit: Children work with a partner to use 3D shapes to build a model behind a barrier. They give directions for a friend to follow. Are the models the same? How are they different? What can be changed to make them the same?

Patternit: Children explain how to turn the 3D shapes to create and continue a pattern.

Learnit: Children will find this superb Knowledge Organiser the perfect resource to support their understanding of position and direction