

Year 2 Maths No Problem Teaching Guidance to go with online Maths No Problem lessons

Chapter 11, Two-dimensional Shape

Lesson 7

To begin this lesson, provide your child with cut-outs of the shapes shown in the In Focus task. Start by showing them you can create a pattern using 2 shapes, for example, a triangle and a rectangle. Ask pupils if they can describe the pattern. Guide them to describe the pattern by using words such as 'repeated', 'the next shape' and '2 different shapes'. Then ask them to create a pattern using all the 3 different shapes. Get them to compare the patterns they have created and describe them. They can ask their partner which shape will come next in their pattern.

Show them the In Focus task. Can they identify the next shape in the pattern? How do they know? Can they see where the pattern starts to repeat itself? Show them different patterns like those in Let's Learn and ask them similar questions. Ask them to draw the patterns and continue them. Also ask them if they are able to circle the original pattern.

During Guided Practice, pupils are identifying the missing shape in patterns using shapes of different colours, orientations and sizes.

Lesson 8

To begin this lesson, provide your child with some cut out circles and ask them if they are able to show you a semicircle and a quarter circle. Tell them that 'semi' also means 'half' in this case. Ask them to use the circles they have been given to fold or cut as needed. Prompt your child by saying your friend said that folding the circle into 4 pieces will help you find a quarter circle. Is this true? How can they be sure?

Once they have the 3 circle types, show your child the In Focus task. Ask them to begin creating the pattern. How can they know what the 5th shape is? Can they predict what the 10th shape is? How do they know? Can they predict what the 50th shape is? Can they come up with a rule to figure out what the 50th shape would be? How is this possible? What generalisation can be made? If they are unable to come up with the answer, prompt them to look at odd and even numbers in the pattern, for example, to look at the pattern in multiples of 5.

During Guided Practice, pupils are looking at patterns and identifying what the 12th shape will be. These patterns vary in size, shape, colour and orientation. In the second part of the task, pupils are determining the first shape in each pattern.

Lesson 9

To begin this lesson, provide your child with a quickly drawn grid like the one shown on the In Focus task and a small red and blue square cut out. Ask them to explain how to get the red square to the blue square. Let them know that each square they move is going to be called a 'step'. Tell them your friend said using words such as 'up', 'down', 'left' and 'right' would be helpful. Is this true? Can you use these words to describe what you need to do?

Show your child the Let's Learn tasks. Ask them if it is possible to follow the instructions. What would it look like?

During Guided Practice, pupils are following instructions to move shapes from one position to another on square grid paper.

Lesson 10

To begin this lesson, provide your child with paper plates or circles of paper that have been divided into quarters, a split pin (if you have one) and an arrow that will act as a spinner (if you don't have these resources, you could use a drawing pin with a paper clip as the spinner. Or a pencil to act as the spinner instead). Ask them to construct spinner plates. Once they have done this, ask them to discuss how the circle on their plates has been divided. The arrow

should begin on one of the lines. Tell them you would like them to move the arrow to the next line, in the same direction as a clock hand moves, and ask them what it is they have done. Tell them to return to where they started and move the arrow halfway around, to the second section. What have they done now?

Prompt your child with terms such as 'quarter' and 'half.' Tell them your friend says that when you move one section, you have moved a quarter. Is this true? How do we know? Would you call this a quarter turn? Which direction did we move? Continue along this line of questioning and (re)introduce rotational vocabulary, then show pupils the In Focus task. Is there anything about the flag that looks like the arrow we were just using (looking at the flag poll)? Provide them with grid paper and ask them to copy the original flag and then turn it. Follow the pattern from the Let's Learn section.

During Guided Practice, provide your child with cut-out of the flag and coloured shapes. Pupils can practise rotating the flag according to the instructions. The second part of the task involves turning a shape. Pupils will use the cut-out shapes to simulate the rotations, then describe the rotations using the vocabulary learned.

Lesson 11

Mind Workout

Maths Journal

Workbook- Review