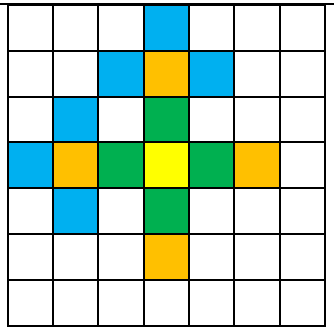
Year 3 Spring 2: Week 3 Maths Planning				
Date	Learning Objective	Starter Activity	Main Teaching	Plenary Activity
8/3/2021	✓ Complete a simple symmetric figure with respect to a specific line of symmetry, and measure angles using a protractor.	https://www.topmarks.co.uk/symmetry/symmetry-sorting Select either pictures, shapes or letters and discuss whether each one is symmetrical or not.	Display 'Snowflakes' images on screen (*Powerpoint*). Explain that we shall be creating our own snowflakes by colouring and looking carefully at some numbers as our snowflake grows. Explain that snowflakes do not grow randomly, they grow according to a pattern or rule. *So, we are going to colour our snowflakes very carefully, sticking to a rule.* Demonstrate how we colour one square in the middle (yellow). Then we colour 4 squares (green) which touch our yellow square by JUST one side. Then we colour another 4 squares (orange) which touch each of our green along just one side.	Show the slide of odd numbers shaded in Pascal's triangle (so creating pattern of the 'Sierpinski' triangle). Children colour the even numbers in a copy of Pascal's triangle (*resources*).

			 Finally, begin to show how we will be able to colour three blue squares around each orange square. Stress that we ONLY colour new squares which touch a coloured square by only one side!	
9/3/2021	✓ Complete a simple symmetric figure with respect to a specific line of symmetry, and measure angles using a protractor.	http://www.topmarks.co.uk/symmetry/symmetry-matching The game above is a nice way to introduce symmetry.	**Whole Class:** Explain that this week we're going to be looking at symmetry. Go into **mymaths -> geometry -> properties of shapes -> symmetry** This gives a good range of activities which will help pupils	Pupils can share their work with each other. You could use peer assessment to check whether their work is symmetrical or not.

			understand symmetrical patterns. **<u>Individually:</u>** There is a range of activities which involve symmetry. Some are just colouring. Others involve completing patterns – these pupils may wish to use mirrors to help them. This website has some good examples of symmetrical figures. You could display them on the IWB. https://www.google.co.uk/search?q=examples+of+symmetry&safe=strict&biw=1280&bih=619&noj=1&source=lnms&tbm=isch&sa=X&ved=0ahUKEwih5MrPn7nNAhVTGsAKHUmqDcsQ_AUICCgB	

10/3/2021	✓ Identify lines of symmetry in 2-D shapes presented in different orientations, including where the line of symmetry does not dissect the original shape	https://www.mathsisfun.com/geometry/symmetry-artist.html Pupils could play on symmetry artist. Encourage discussion.	**Whole Class/Individually:** Children will be using their knowledge to create their own symmetrical alien. Do the first few steps together, then the children can decorate their aliens individually. - Take some A4 paper/coloured card and fold it in half lengthways. - Pupils are to draw one half of their alien – half a boy, half a head, arms, legs etc. Look at the example if you need to. - Once the line is drawn they should carefully cut out their alien. Once cut out children can begin to decorate their alien symmetrically. Children could use sequins, googly eyes, scrap card etc. Here is an example of a completed one:	Pupils could share their creations with each other. They could walk around the room and choose their favourite ones.

				
11/3/2021	✓ Identify lines of symmetry in 2-D shapes presented in different orientations, including where the line of symmetry does not dissect the original shape	Write the following statement on the board: All shapes with four sides are symmetrical. Discuss whether this is true or false. Don't answer yet as we will come back to this in the plenary.	The next two lessons will be opportunities for pupils to consolidate and show their knowledge of symmetry in their books. Make sure there are pictures of their aliens for displays or evidence in their book the beginning of this lesson can be used to finish these if needed. Open up the flip which shows a pattern and a line of symmetry. Can you draw the other half of the shape as a class? Pupils have a range of 'Complete the pattern' sheets to do. Only one of these needs	Refer back to the statement posed in the starter. Do pupils have the same opinion? Display a few four sided shapes (regular and irregular and discuss again.

			to be stuck in to show evidence but they are fun ways of demonstrating their knowledge of symmetry. Extension – they could create a pattern in their book and ask a partner to complete the other side (add their partner's name to ensure both can be assessed).	
12/3/2021	✓ Identify lines of symmetry in 2-D shapes presented in different orientations, including where the line of symmetry does not dissect the original shape	https://www.sheppardsoftware.com/math/geometry/symmetry-game/ Play this game a class, discussing each shape together.	Today pupils are going to be drawing symmetrical houses in their books but always starting to understand 2D shapes in preparation for next week. Display the IWB which shows four 2d shapes, ask them what the shapes are called. Can they name any more? Draw these on the board (try making them regular so we can use them in your symmetrical house). Use the square as the main shape of your house, drag the other shapes into position and try showing them how to make a symmetrical house. Can they produce a similar one in their books?	Discuss the symmetry of your class' houses. Can they peer assess each other's and write a comment?

			Ensure they are using a ruler or any equipment which will help them make this symmetrical as possible. They can colour this too but ensuring it is entirely symmetrical (add a doorknob to yours, does this change whether the house is symmetrical? What about a chimney?)	