

Bloomsmath is a comprehensive mathematics program which provides a fun way for every student to be learning to the best of their ability.

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# Makes Maths Fun Level 2

# 2 Dimensional Shapes

Level 2 is designed for students in their second year at school often called Year 1. The 2D Shapes strand allows students to sort, represent, describe and explore various 2D shapes including hexagons, rhombuses and trapeziums.

Knowledge: Students will identify and draw squares, rectangles, circles, triangles and hexagons and colour each a different colour.



Students who demonstrate proficiency in this activity move on to Comprehension.



Students stop here as they require additional teacher support to master this activity.

Comprehension: Students will examine the differences between a rhombus and a trapezium. They will identify rhombuses by colouring them red and trapezium by colouring them green.



Students who demonstrate proficiency in this activity move on to Application.



Students stop here if time has run out or they require additional support with this activity.

Application: Students will draw a picture using triangles, circles, hexagons, squares, rectangles, rhombuses and trapeziums.



Students who demonstrate proficiency in this activity move on to Analysis.



Students stop here if time has run out or they require additional support with this activity.

Analysis: Students will use a a series of letters to flip, slide and turn.



Students who demonstrate proficiency in this activity move on to Synthesis.



Students stop here if time has run out or they require additional support with this activity.

Synthesis: Students will identify shapes which will and won't tessellate and create a tessellating pattern of their own by turning and flipping their own shape.

Evaluation: Suggested questions provide a starting point for discussions related to 2D Shapes.



Students may complete more or fewer activities for each learning outcome depending on the time allocated and their strength in the area being covered.



All students should participate in the Evaluation discussion to encourage the use of mathematical language, logical reasoning and reflection on that which they have completed.

## Shapes Galore

Colour the squares red, rectangles orange, circles yellow, triangles green and hexagons blue.



Draw each shape below.





Progress To Comprehension

Analysis

Synthesis

Knowledge

#### **Rhombuses and Trapeziums**

A rhombus is a quadrilateral with equal sides that looks like a pushed over square.

A trapezium is a quadrilateral with one set of parallel sides that looks like a roof.

Colour the rhombuses red, the trapezium purple and everything else yellow.



#### Back to Basics

Trace the bicycle below making the hexagons red, rectangles orange, circles yellow, triangles green, hexagons blue. rhombuses purple and trapeziums pink.



Use hexagons, rectangles, circles, triangles, hexagons. rhombuses and trapeziums to make a picture of your own below.







2D 2 AP

# Flip, Slide and Turn

Flip, slide and turn the letters given below. An example is given at the top.

	Flip	Slide	Turn
L	J	J	7
M			
R			
Q			
K			
G			
S			





2D 2 AN

Progress To Synthesis

#### Tessellations

When shapes fit together without leaving any gaps they tessellate. Tick the patterns which tessellate and cross out those which do not tessellate.



Create your own tessellating pattern below.







2D 2 55

Progress To Evaluation

Application

Analysis

Synthesis

Knowledge

Comprehension



## 2 Dimensional Shapes Discussion

The following questions and activities are provide as a starting point for fun discussions related to 2D Shapes. During these conversations students will have an opportunity to use appropriate mathematical language in its correct context, to engage in reflection on the 2D Shapes activities they have completed and to use logical reasoning to tie their in-class mathematics to its everyday context.



Look at some of Esher's tessellating pictures and then create some interesting teselation patterns by cutting out one side of a rectangle and taping it to the other side.

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Shapes - Level 2 - Students will sort, represent, describe and explore various 2D shapes

Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluat



Why do we need so many different shapes? What is the difference between regular and irregular shapes?



Look at the Latin counting system and the correlation between their numbers and the names of shapes with that many sides.



Explore with 3D models the strength of a triangle and circle over a rectangle,



Let the students use shape stamps to make wrapping paper and tessellations.

