BLOOMSM4TH

Makes Maths Fun

Level 3

2D SHAPE

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

By Rachel McCann (B.Teach; B.Ed Hons; M.ED (Special Ed.)

BLOOMSM4TH Makes Maths Fun

Level 3

2D Shape

Level 3 is designed for students in their third year at school often called Year 2. Students will manipulate, sort, represent, describe and explore various two dimensional shapes.

Knowledge: Students will sort the given shapes into hexagons, rhombuses and trapeziums.

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

STOP

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

Comprehension: Students will name each shapes sides, corners and number of lines of symmetry.

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

STOP

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

Application: Students will find as many lines of symmetry as they can for each given shape.

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

STOP

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

Analysis: Students will try to slice a circle into a number of even pieces.

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

STOP

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

Synthesis: Students will use a strip of paper to learn about dividing a circle.

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

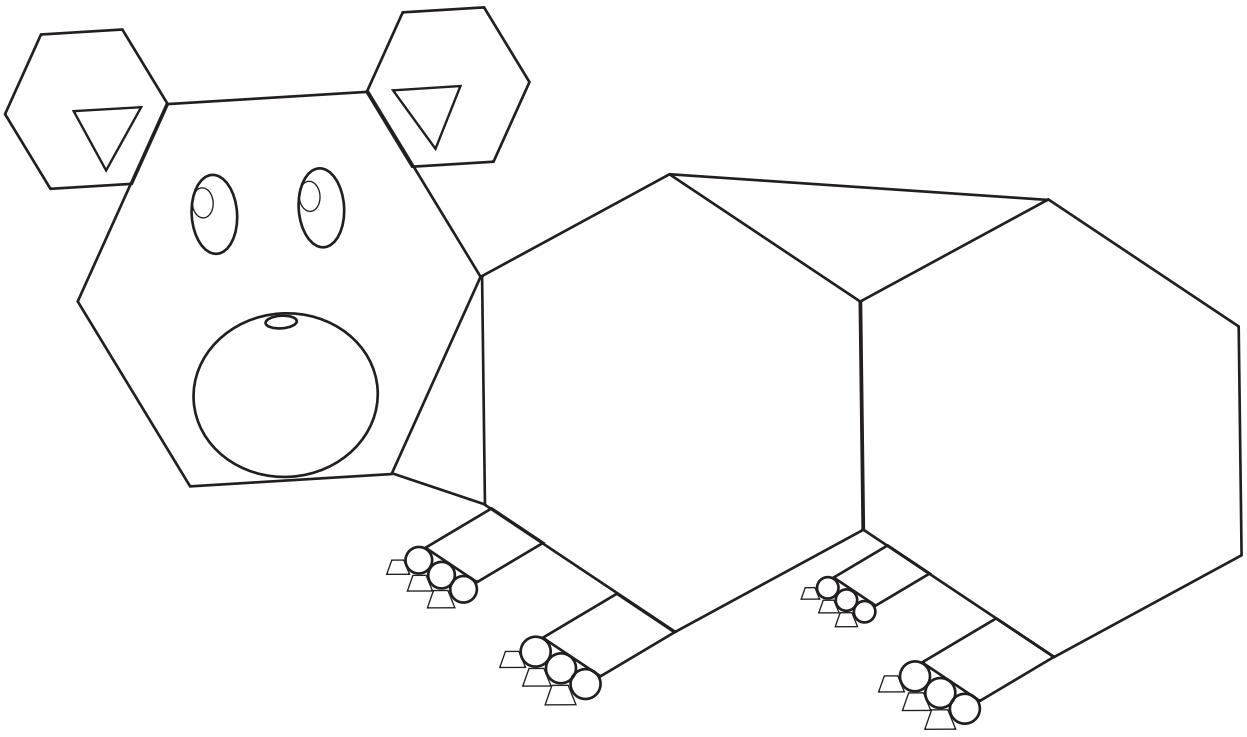
Students may complete more or fewer activities for each learning outcome depending on the time allocated and their strength in the area being covered.

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.

Name: _____

Knowledge

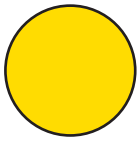
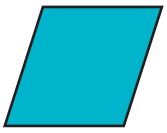
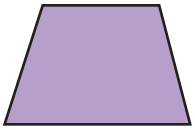
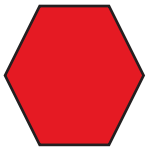
For the shapes below colour the hexagons red, the rhombuses blue, the trapeziums green, the triangles yellow and the circles brown.



Name: _____

Comprehension

Complete the table below to list each shapes name, number of sides, corners and lines of symmetry. (The names are all listed at the bottom to help you with spelling).

Picture	Name	Sides	Corners	Line of Symmetry
				
				
				
				
				
				
				

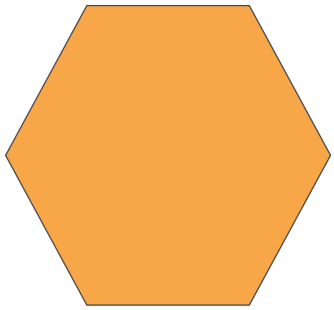
Circle, Hexagon, Rectangle, Rhombus, Square, Trapezium, Triangle

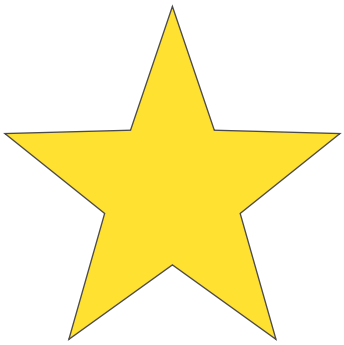
 Let's Try This Again  Progress To Application

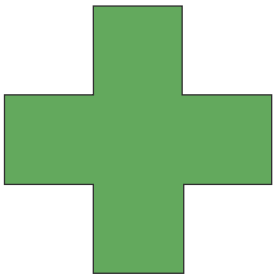
Name: _____

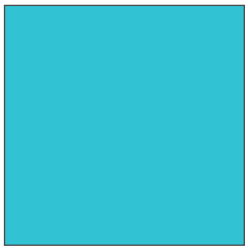
Application

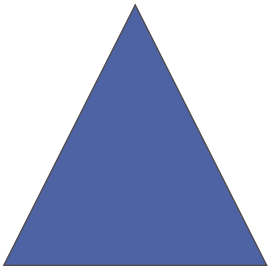
Find as many lines of symmetry as they can for each shape below.

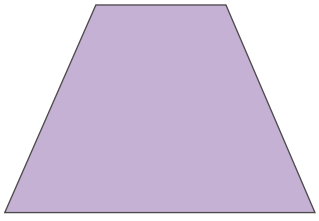


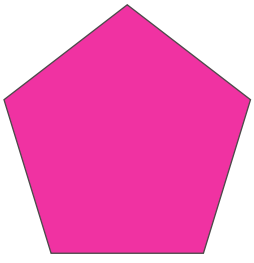












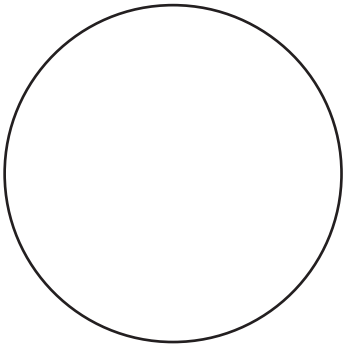
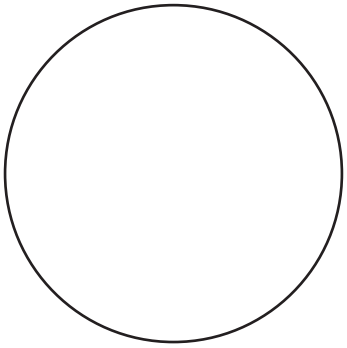
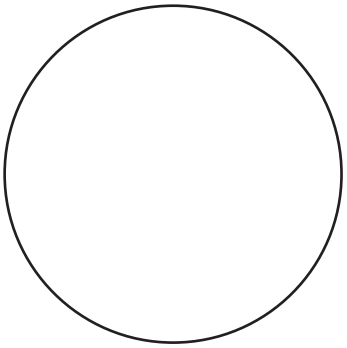
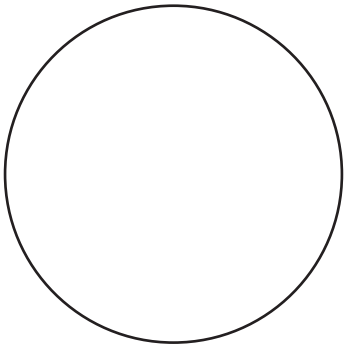
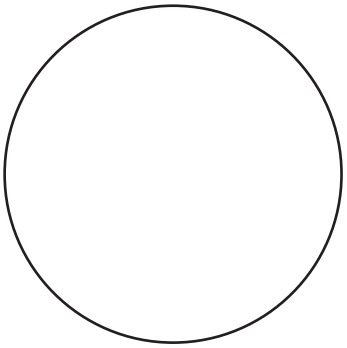
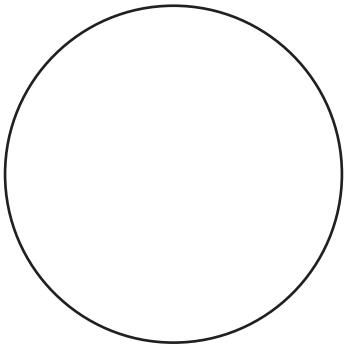
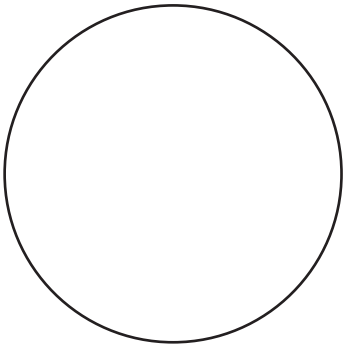
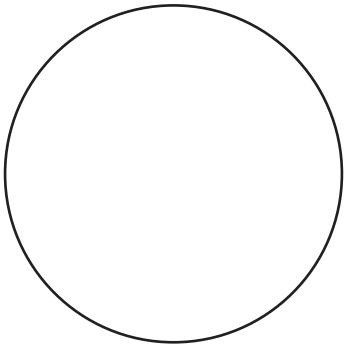
Let's Try This Again

Progress To Analysis

Name: _____

Analysis

Can you slice each of these circles into the given number of pieces.

1 	2 
3 	4 
6 	8 
12 	16 

 Let's Try This Again

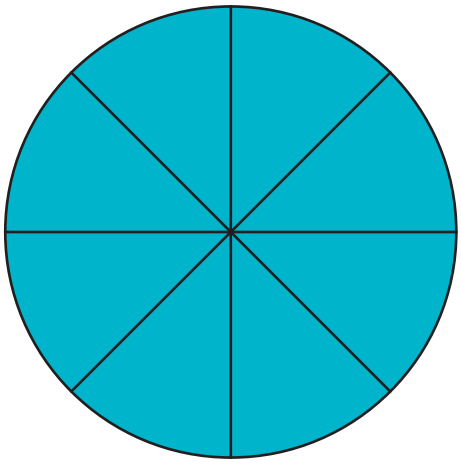
 Progress To Synthesis

Name: _____

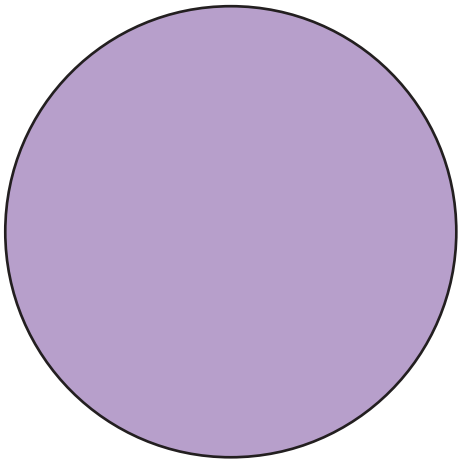
Synthesis

An easy way to be sure the pieces of a circle are cut evenly is to divide a strip of paper the same length as the edge or circumference of the circle and then curve it back around the circle to cut it evenly.

Cut out the strip of paper at the side of the page. Curve it back around the circle and see that the lines match those drawn on the circle.



Now use strip 2 to help you divide this circle into 10 parts.



Strip 1

Strip 2

Evaluation

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

When might you need to know about a shapes lines of symmetry?

Bring in 2 cakes or large pikelets and have the class try to cut them into 20 pieces. Is it easier to cut the cake into squares or triangle segments?

Where do we find trapeziums, rhombuses and hexagons in the modern environment?

The next shape after a hexagon is a heptagon. Can students draw a heptagon?

How many lines of symmetry does a circle have?

Was it more accurate to divide a circle using lines through the centre or a strip around the outside?