BLOOMSM4TH

Makes Maths Fun

Level 4

2D SHAPES

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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BLOOMSM4TH Makes Maths Fun

Level 4

2D Shapes

Level 4 is designed for students in their fourth year at school often called Year 3. Students will manipulate, compare, sketch and name two dimensional shapes and describe their features.

Knowledge: Students will identify the features of 2D shapes including squares, triangles and hexagons.

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 make caterpillars using 4 hexagons.

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 use 6 equilateral triangles to make different hexiamond shapes.

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 piece together an equilateral triangle using other known 2D shapes.

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 make polygons from 2 triangles and 1 rectangle.

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

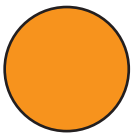
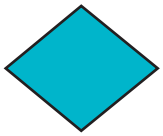
Students may complete more or fewer activities for each learning outcome depending on the time allocated and their strength in the area being covered.

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.

Name: _____

Knowledge

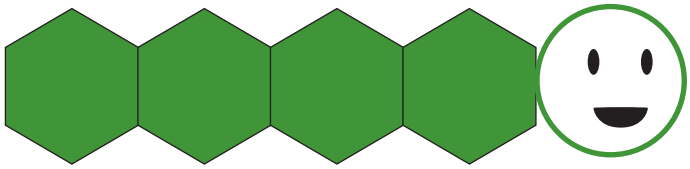
Complete the table below of a selection of 2D shapes.

Name	Picture	Sides	Corners	Axis of Symmetry
				
		3 sides which can be equal or not equal		
Square				
				2
				
Trapezium				
		2 sets of 2 equal sides that are parallel to each other		
Pentagon			5	
				
				8

Name: _____

Comprehension

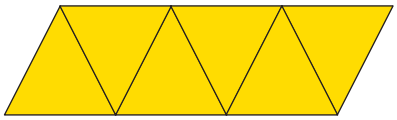
Using 4 hexagons and 1 circle (face) it is possible to make 7 different shaped caterpillars where at least 1 side of each hexagon touches at least one other hexagon. One has been done for you. See if you can make the remaining 6 caterpillars.

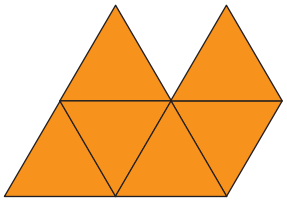


Name: _____

Application

Using 6 equilateral triangles it is possible to make 12 different hexiamond shapes. Two have been done for you. See if you can make the remaining 10.

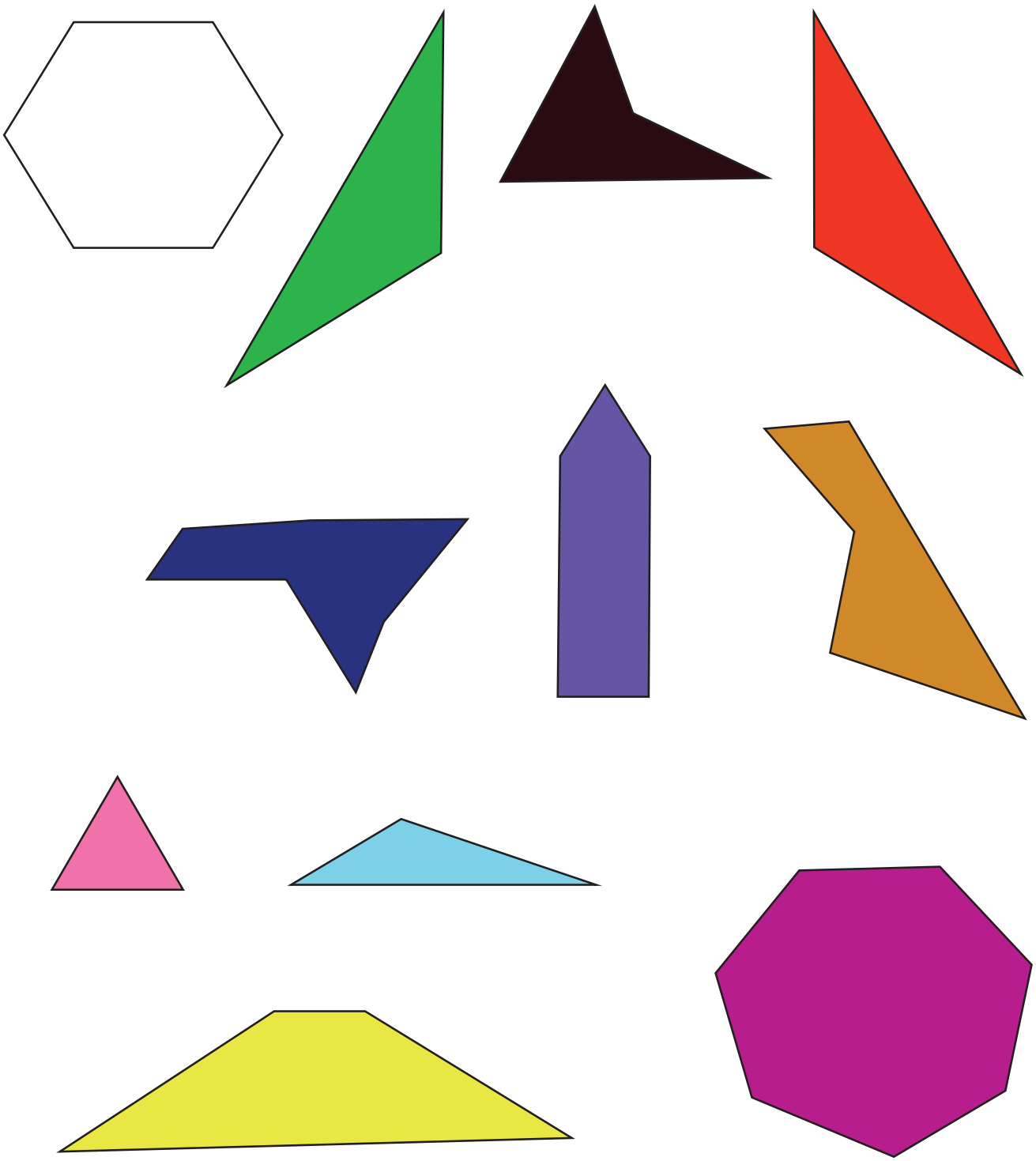




Name: _____

Analysis

See if you can use these pieces to make an equilateral triangle. Label each piece with its name. There are both regular and irregular shapes.



Let's Try This Again

Progress To Synthesis

Name: _____

Synthesis

Cut out the rectangle and 2 triangles at the side of the page. Use these to make 10 polygons. Draw and name each polygon in the boxes below. One has been done for you.

 Trapezium	

Let's Try This Again

Progress To Evaluation

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 Shapes activities they have completed and to use logical reasoning to tie their in-class mathematics to its everyday context.

Find examples of polygons in the classroom and around the school.

Discuss the difference between 2D and 3D shapes and that while we can draw 2D shapes we use these to draw 3D shapes which we cannot really draw and why this is so.

Discuss the difference between regular and irregular shapes.

See if students know the names of any shapes beyond those in this set such as a heptagon, nonagon or decagon.

Show students that shapes derive their names from Latin and the Latin counting system for the number of sides each shape has.