BLOOMSMATH

Makes Maths Fun

Level 2

3D 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 2

3 Dimensional Shapes

Level 2 is designed for students in their second year at school which is most often referred to as Year 1. The 3D strand allows students to sort, describe and represent objects including cones, cubes, cylinders, spheres and prisms.

Knowledge: Students match a number of cones, cylinders, cubes, pyramids, rectangular prisms and spheres to their shape name and attempt to draw one of each of these shapes.

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 match food to its 3D shape such as a watermelon is a sphere or a piece of pizza is a flat triangular prism.

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 are provided with a net which will need to be copied onto cardboard so that they can make a cone for storing popcorn in and a rectangular prism gift bag.

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 complete a table which identifies the constituent parts of 3D shapes using faces, edges and vertices for a cone, cube, cylinder, rectangular prisms, sphere and triangular prism.

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 use the dot grid paper provided to draw a cube and a triangular prism from 2 different perpsectives. Enough space is given for them to practice a couple of times.

Evaluation: Suggested questions provide a starting point for discussions related to 3 Dimensional Shapes.

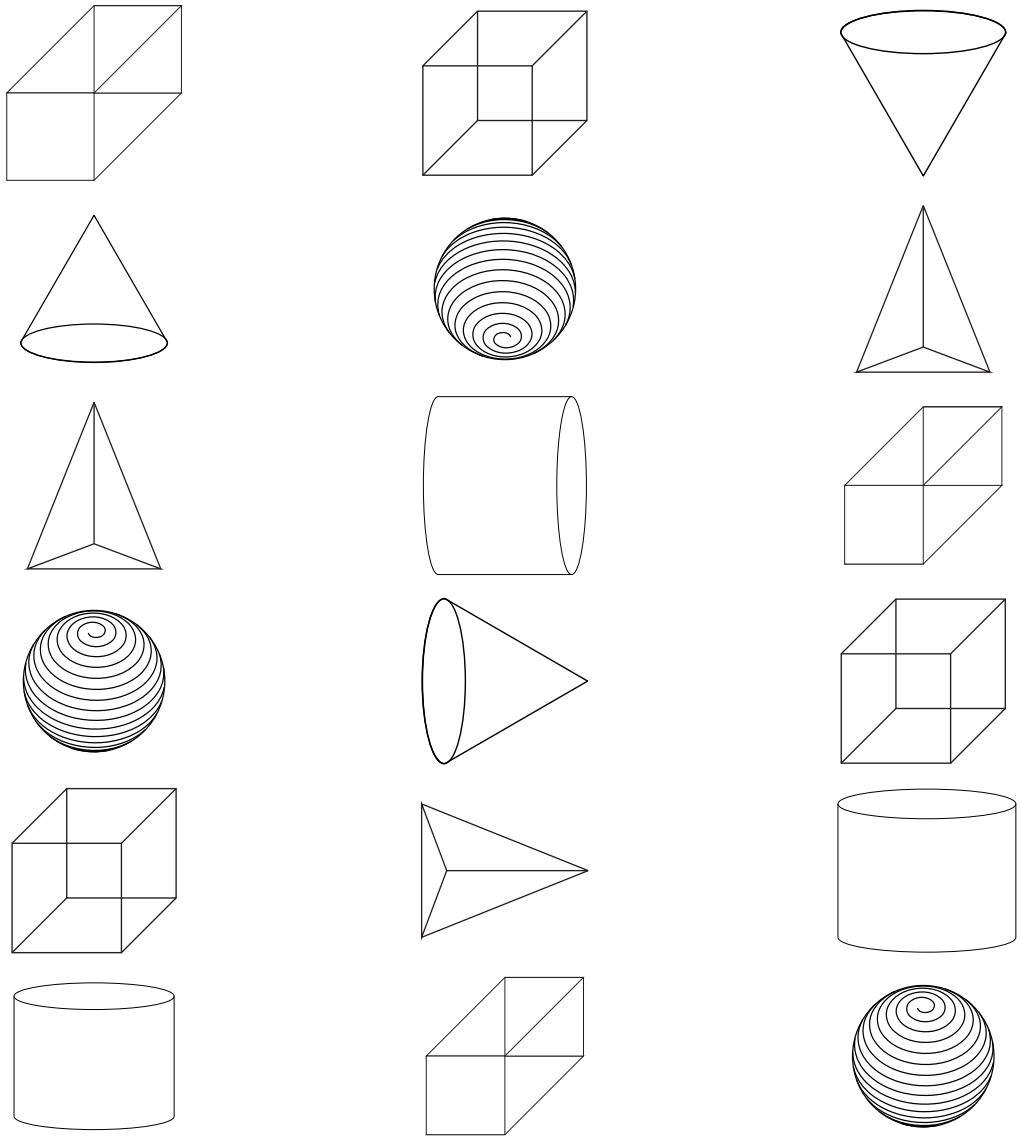
Students may complete more or fewer activities for each learning outcome depending on the time allocated and their strength in the area being covered.

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: _____

Identifying 3D Shapes

Colour the Cones - Red, Cubes - Orange, Cylinders - Yellow, Rectangular Prisms - Green, Spheres - Blue and Triangular Prisms - Purple. Draw one of each shape in the boxes as labelled.



Cone	Cube	Cylinder	Rectangular Prism	Sphere	Triangular Prism

Let's Try This Again

Progress To Comprehension

3D 2 KN

3D Shapes - Level 2 - Students will sort, describe and represent cones, cylinders, spheres & prisms.

Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

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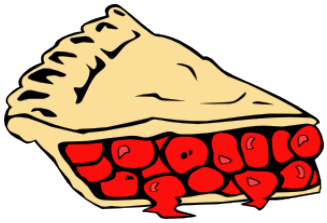
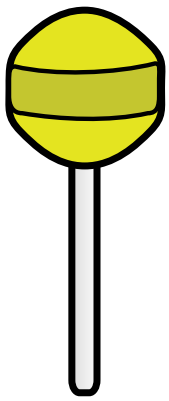
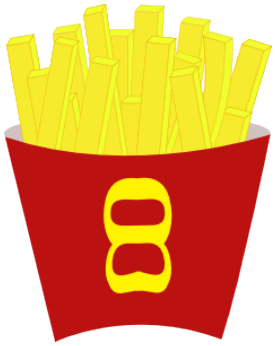
Name: _____

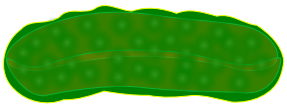
Playing With Food

Draw a line to match each food or drink container to its correct 3D shape.

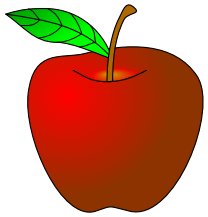


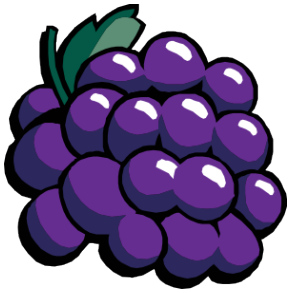


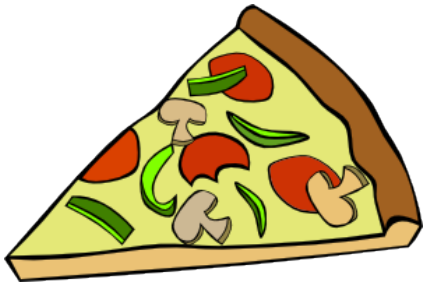


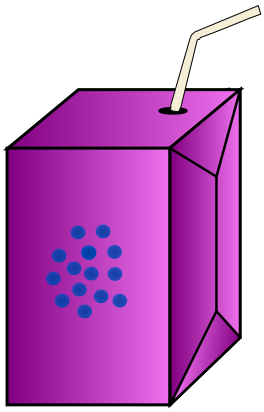


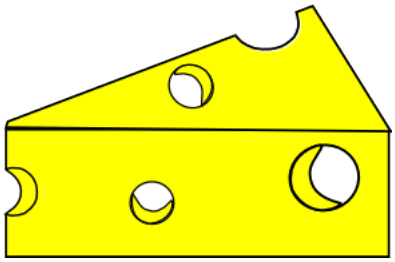
Triangular Prism	Rectangle Prism
Sphere	Cylinder

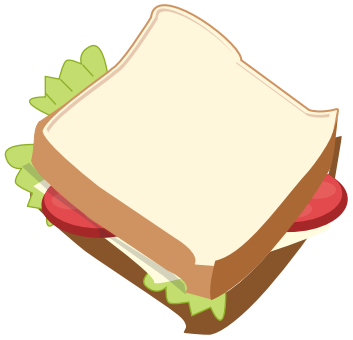












Let's Try This Again

Progress To Application

3D Shapes - Level 2 - Students will sort, describe and represent cones, cylinders, spheres & prisms.

Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

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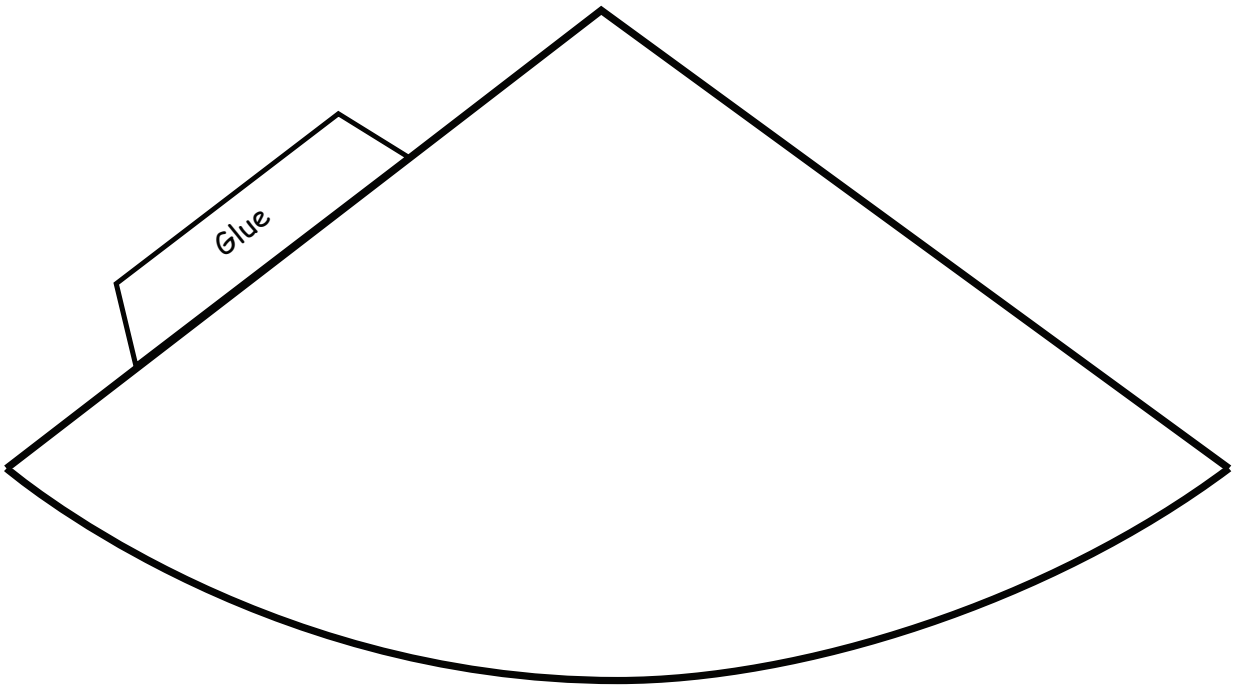
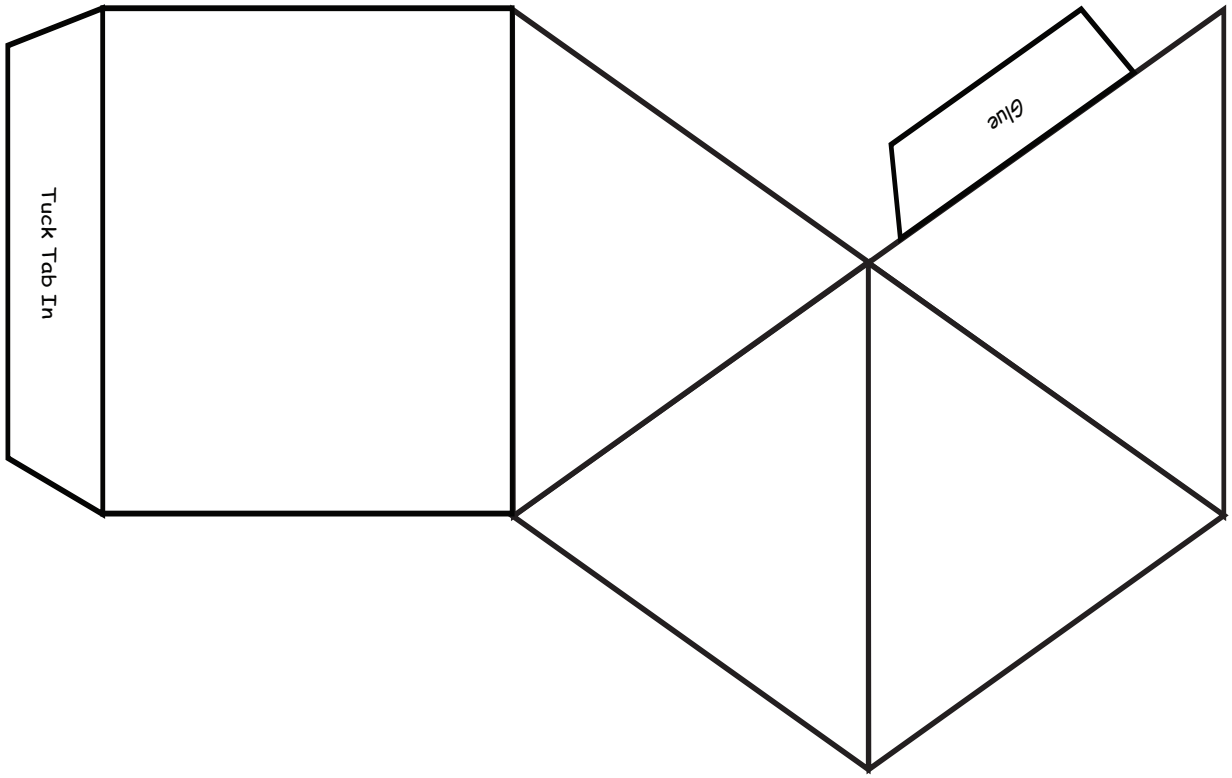
Name: _____

Useful Containers

Print out the nets below onto cardboard and students can make spherical popcorn to fill their cone (spherical chocolate or crisp balls could also be used) and place a present for someone in the pyramid gift box.

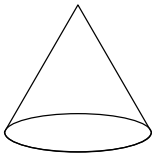
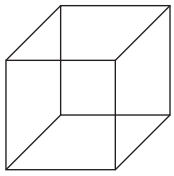
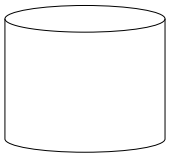
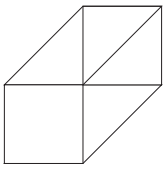
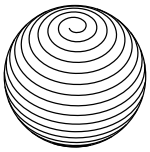
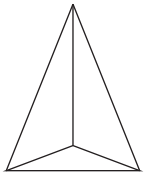




Name: _____

3D Shape Attributes

Use the picture of each shape to list its attributes - number of faces, edge and vertices (where 3 sides or a curved plane meet) .

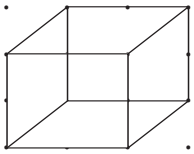
Shape	Picture	Faces	Edges	Vertices
Cone				
Cube				
Cylinder				
Rectangular Prism				
Sphere				
Triangular Prism				

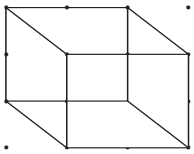
 Let's Try This Again  Progress To Synthesis

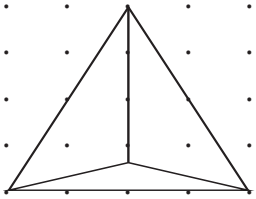
Name: _____

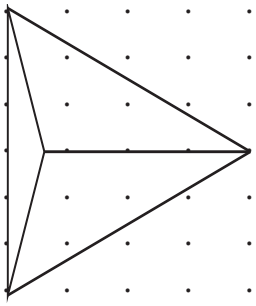
Drawing A Cube.

Use the dot paper below to help you draw a cube and a triangular prism from 2 different perspectives.









3 Dimensional Shapes Discussion

The following questions and activities are provided as a starting point for fun discussions related to 3 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 3 Dimensional Shapes activities they have completed and to use logical reasoning to tie their in-class mathematics to its everyday context.

Having been given a number of food and drink items with varying 3D shapes have students suggest other foods which are cones, cubes, cylinders, rectangular prisms, spheres and triangular prisms.

Have students bring in different shaped foods and have a shape food party with items such as spherical crisps, spherical watermelon, cheese cubes, salami cylinders, triangular prism sandwiches and of course finish with ice cream cones.

Which perspective image was the easiest and which was the most difficult to copy - why was this the case?

Having made spherical popcorn to fill the cones use the instructions below to make cylindrical fairy bread. (Pita bread or gluten free wraps can be used in place of loaf bread if required).

1. Slice a loaf of bread lengthwise to create long thin rectangular pieces.
2. Remove all crusts.
3. Spread thinly on one side with margarine.
4. Coat liberally with hundreds and thousands or topping of choice.
5. Roll from one short side to create a long cylinder.
6. Slice into smaller cylinders depending on number of students.