

Stage 3

Outcomes Based

Assessment

Tasks

SPACE

STAGE 3 OUTCOME ASSESSMENT MAPPING GRID

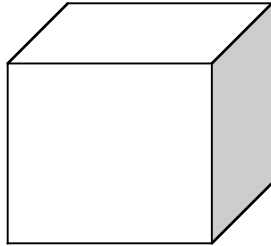
Stage of Task	3 SPACE
Outcome	1. Representing three-dimensional space
Outcome Descriptor	Recognises, visualises, describes, makes and represents three dimensional objects.
Stage	Number of Indicator Questions
1	1
2	3
3	4

Question	1	2	3	4	5	6	7	8				
Stage	1	2	2	2	3	3	3	3				
Indicator Description												
<ul style="list-style-type: none"> • describes and predicts the movement of objects, eg. floating, bouncing, sliding, stacking, rolling 	*											
<ul style="list-style-type: none"> • describes and compares faces, edges and corners of prisms, cylinders and pyramids 		*										
<ul style="list-style-type: none"> • identifies prisms, cylinders and pyramids from drawings, photographs and real-life 			*									
<ul style="list-style-type: none"> • constructs 3D models using nets, skeletons and cross-sections with a range of materials including blocks, grid paper 				*								
<ul style="list-style-type: none"> • recognises an object from different viewpoints • constructs or draws a 3D object when presented with its elevations 					*							
<ul style="list-style-type: none"> • models 3D solids from isometric drawings and photographs • represents 3D objects on isometric dot paper 						*						
<ul style="list-style-type: none"> • constructs or draws a 3D object when presented with its elevations • represents 3D objects on isometric dot paper 							*					
<ul style="list-style-type: none"> • writes a procedural text for constructing a skeletal model, eg a square pyramid. 								*				

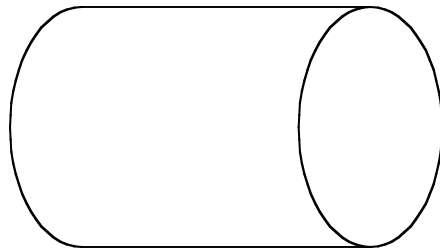
ASSESSMENT TASK FOR STAGE 3
SPACE 1: REPRESENTING THREE DIMENSIONAL SPACE

STAGE 1: 1 QUESTION

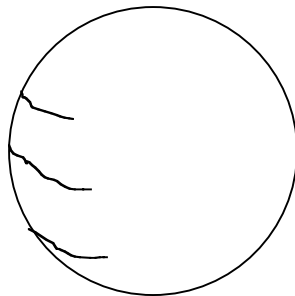
1. Match the object to the word that describes how that object could be manipulated



Bouncing



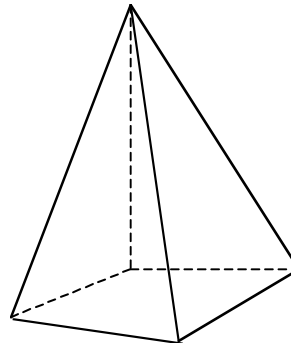
Stacking



Rolling

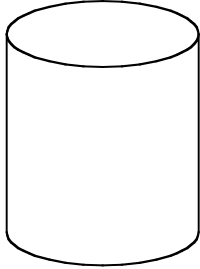
STAGE 2: 3 QUESTIONS

2. Fill in the missing numbers for this 3D shape.
- a) The 3D shape has _____ faces.
 - b) The 3D shape has _____ corners.
 - c) The 3D shape has _____ edges.

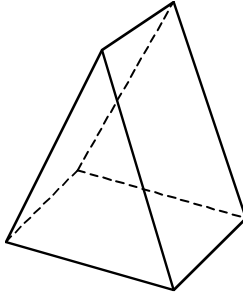


STAGE 2: 3 QUESTIONS

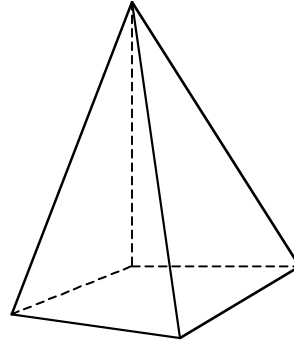
3. a) Match the names to their shapes.



pyramid

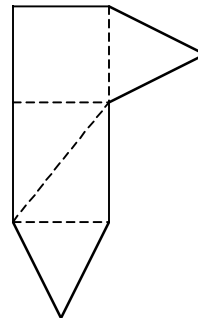
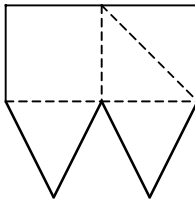
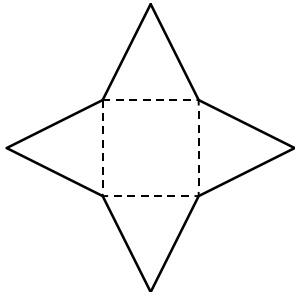


triangular prism



cylinder

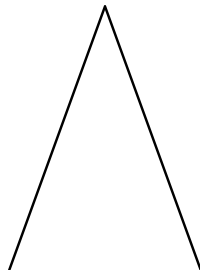
- b) Circle the object that has no corners.
c) Put a cross on the object with the most triangular faces.
4. Circle the net which could be used to make a square pyramid.



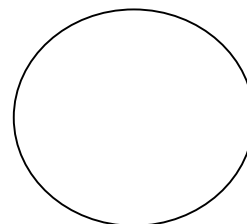
STAGE 3: 4 QUESTIONS

5. Teacher displays a 3D shape in two different positions. Students draw the 3D shape from each viewpoint.

View A



View B

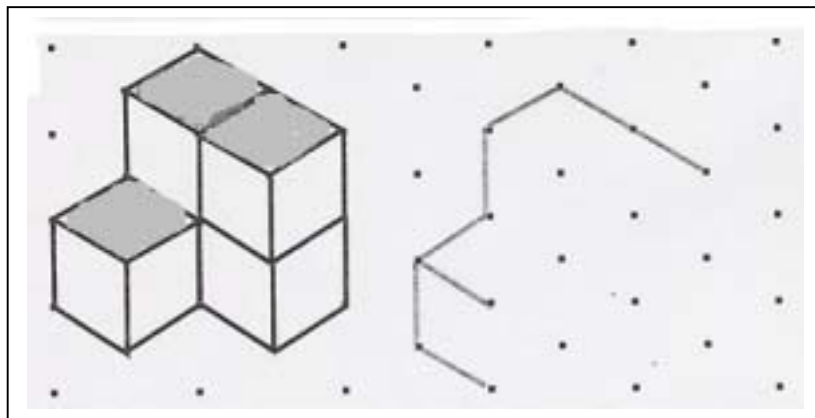


a) Circle which 3D shape is represented in these two views.

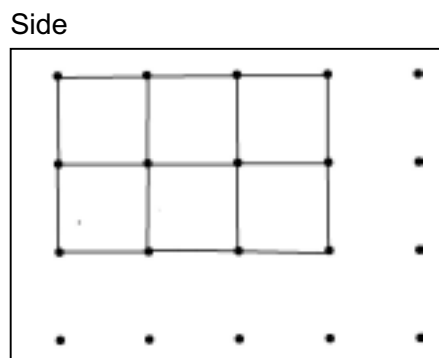
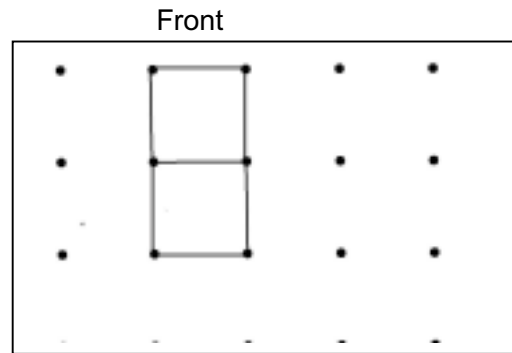
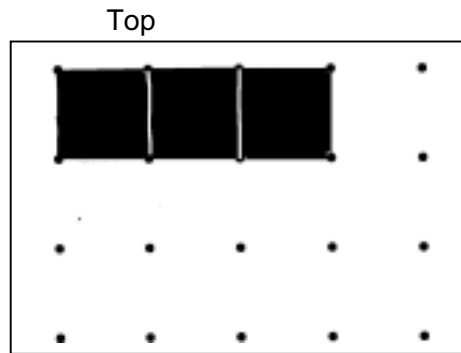
- cone
- cylinder
- pyramid
- rectangular prism

b) Sketch the 3D shape below.

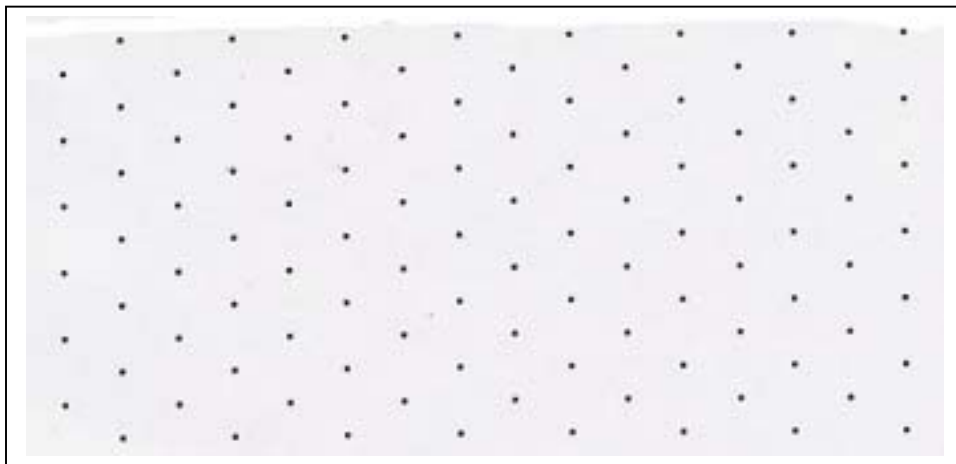
6. Finish of the 3D shape.



7. Look at the front, top and side views of this model.



Draw the model of the shape that these views represent on the dot paper.



8. One of the following statements describe how to draw a square based pyramid. Circle the correct statement.
- Draw a square on paper then draw lines from the corner of the square going vertically from the page.
 - Draw a skewed square on paper then draw lines that meet at a point above the centre of the skewed square.
 - Draw a skewed rectangle then draw lines that meet at a point above the centre of the skewed rectangle
 - Draw a rectangle on paper then draw lines from the corner of the rectangle going vertically from the page.

STAGE 3 OUTCOME ASSESSMENT MAPPING GRID

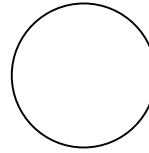
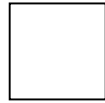
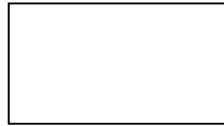
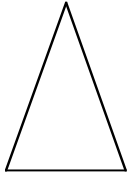
Stage of Task	3 SPACE
Outcome	2. Representing two-dimensional space
Outcome Descriptor	<p>a) Constructs and classifies polygons and other two-dimensional shapes and describes and compares their properties.</p> <p>b) Measures, constructs and classifies angles.</p> <p>c) Recognises that objects can be represented using scale models and makes simple calculations using scale.</p>
Stage	Number of Indicator Questions
1	1
2	2
3	5

Question	1 a	1 b	2 a	2 b	3	4	5	6	7	8			
Stage	1	1	2	2	2	3	3	3	3	3			
Indicator Description													
<ul style="list-style-type: none"> recognises and names simple 2D shapes describes properties of 2D shapes 	*												
<ul style="list-style-type: none"> states the number of lines of symmetry for a given shape recognises straight, curved and parallel lines in the environment 			*										
<ul style="list-style-type: none"> compares angles and measures using informal means, eg angle testers describes angles in everyday language, eg steep, more than, same as 					*								
<ul style="list-style-type: none"> predicts shape(s) created as a result of folding 						*							
<ul style="list-style-type: none"> describes and compares properties of 2D shapes using some mathematical terms, eg isosceles, equilateral, scalene triangles 							*						
<ul style="list-style-type: none"> classifies angles as reflex, acute, obtuse, right or straight uses a protractor to measure angles in degrees 								*					
<ul style="list-style-type: none"> recognises different scales of the same plan or model 									*				
<ul style="list-style-type: none"> uses scale to calculate the distance between two points on a map 										*			

**ASSESSMENT TASK FOR STAGE 3
SPACE 2: REPRESENTING TWO-DIMENSIONAL SPACE**

STAGE 1: 1 QUESTION

1. a) Match the names to the shapes.



square

circle

triangle

rectangle

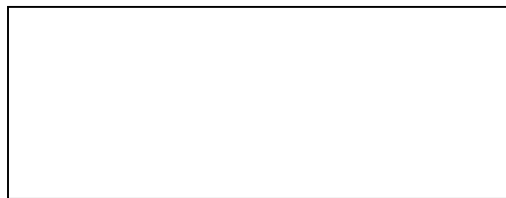
- b) Tick the word that best describes a circle.

- round
- pointy
- straight
- bumpy

STAGE 2: 2 QUESTIONS

2. a) Tick the number of lines of symmetry for a rectangle.

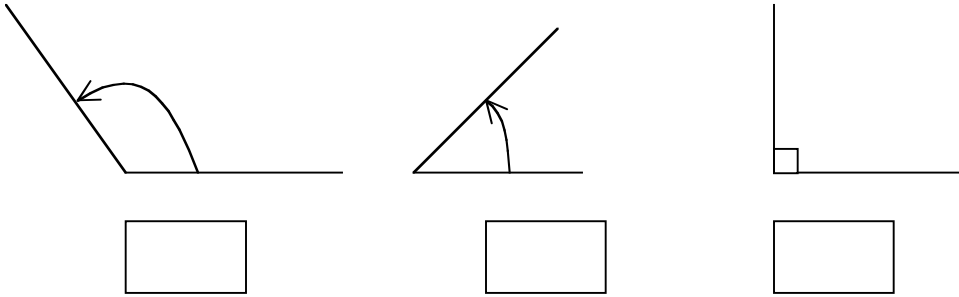
- 1
- 2
- 3
- 4



- b) Choose the best words to describe the edges of a rectangle.

- curved
- parallel
- wavy
- straight

3. a) Order these angles from the smallest to the largest. Write 1 in the box for the smallest, 2 for the middle one and 3 for the largest.

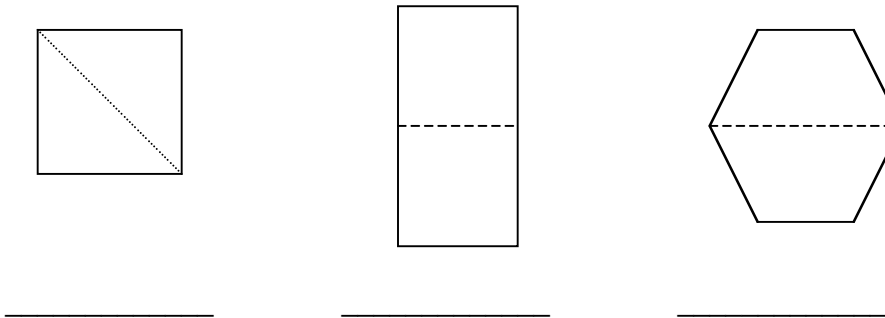


- b) Tick the best word to describe the largest angle. from the diagrams above

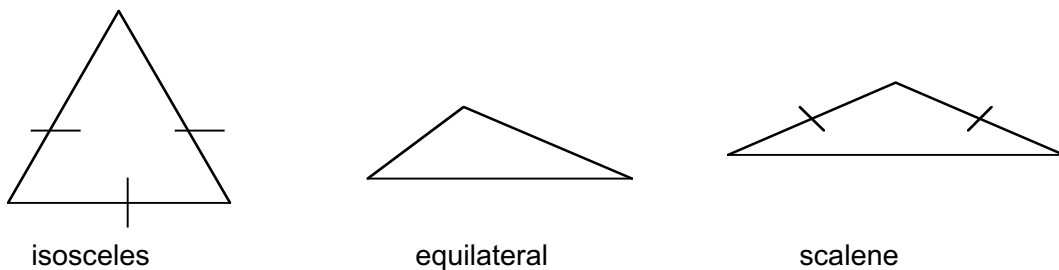
- blunt
- corner
- sharp

STAGE 3: 5 QUESTIONS

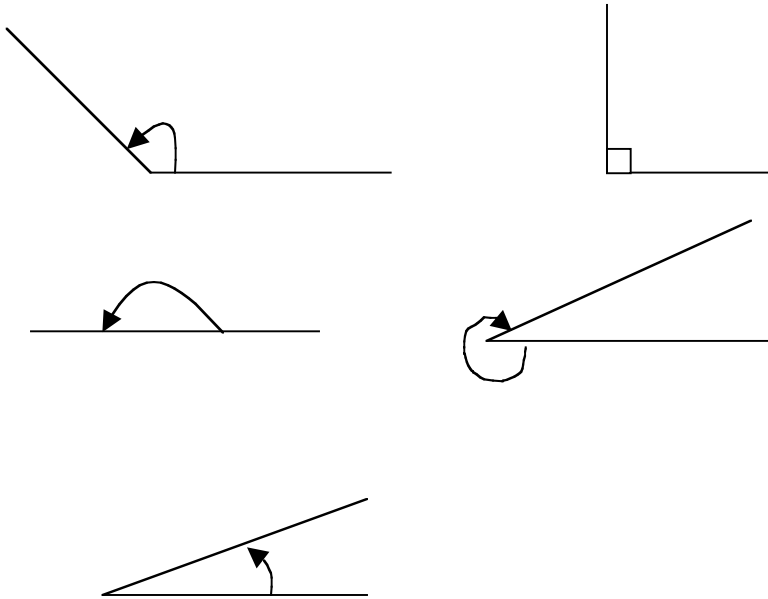
4. Under each shape write the name of the shape which will be created when they are folded on the dotted lines.



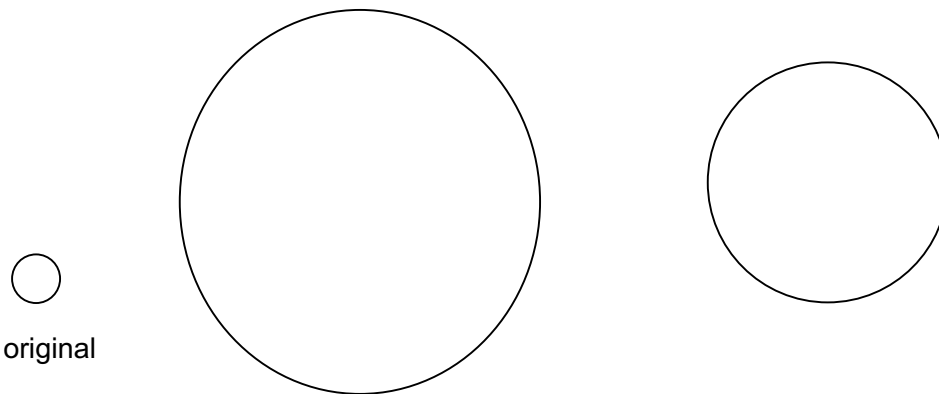
5. Match each triangle to its correct name.



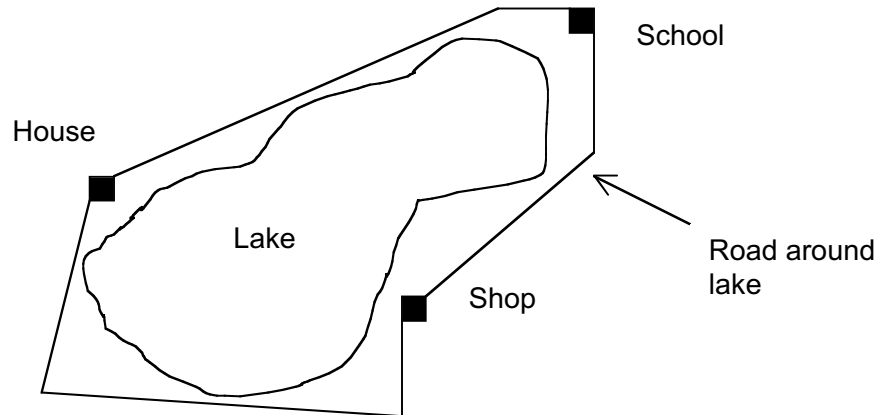
6. Measure these angles using a protractor and then label them by their correct names. (reflex, acute, obtuse, right, straight)



7. Determine by what factor each of these circles have been scaled up compared with original.



8. On the map of the neighbourhood below 1cm represents 1 kilometre.



- a) How far is it from the house to the school (shortest road route)? _____ (km)
- b) How far is it from the shop to the school (shortest road route)? _____ (km)

STAGE 3 OUTCOME ASSESSMENT MAPPING GRID

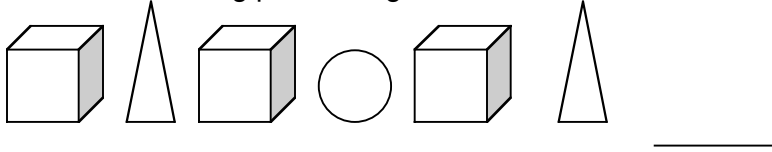
Stage of Task	3 SPACE
Outcome	3. Spatial patterns
Outcome Descriptor	Describes, constructs and interprets patterns and tessellations.
Stage	Number of Indicator Questions
1	1
2	3
3	4

Question	1	2	3	4	5	6	7	8				
Stage	1	2	2	2	3	3	3	3				
Indicator Description												
<ul style="list-style-type: none"> • makes patterns using 2D and 3D shapes 	*											
<ul style="list-style-type: none"> • visualises and describes patterns in terms of flipping and sliding • constructs patterns using flips, slides and turns 		*										
<ul style="list-style-type: none"> • investigates and identifies shapes that tessellate 			*									
<ul style="list-style-type: none"> • constructs and assembles tangram puzzles 				*								
<ul style="list-style-type: none"> • identifies shapes with rotational symmetry 					*							
<ul style="list-style-type: none"> • describes, predicts and continues tessellating patterns 						*						
<ul style="list-style-type: none"> • creates designs using tessellations • describes, predicts and continues tessellating patterns 							*					
<ul style="list-style-type: none"> • creates designs using tessellations • describes, predicts and continues tessellating patterns 								*				

**ASSESSMENT TASK FOR STAGE 3
SPACE 3: SPATIAL PATTERNS**

STAGE 1: 1 QUESTION

1. The following pattern begins at the left and continues to the right

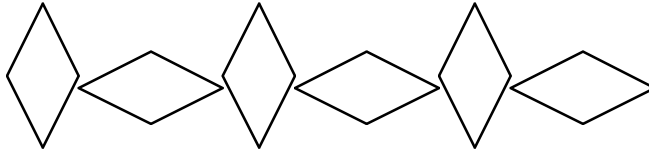


Circle the shape that would be next in the pattern.

- Triangle
- Square
- Cube
- Circle

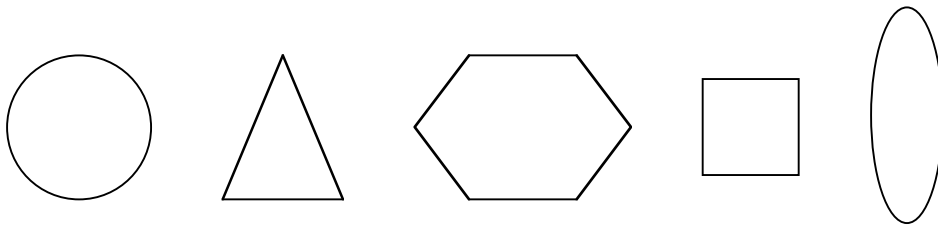
STAGE 2: 3 QUESTIONS

2. Circle your choice for the way in which this pattern has been made.

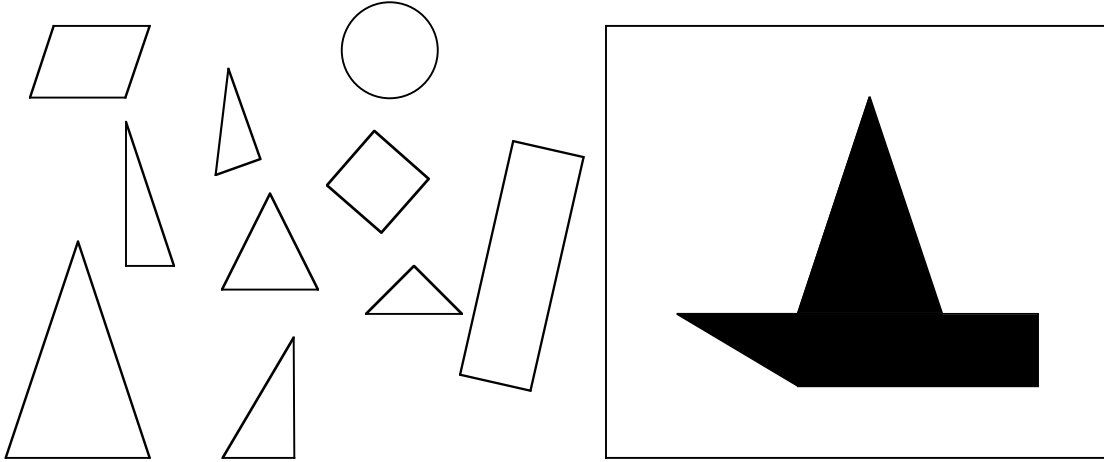


- Flips
- Slides
- Turns

3. Colour the shapes that tessellate.

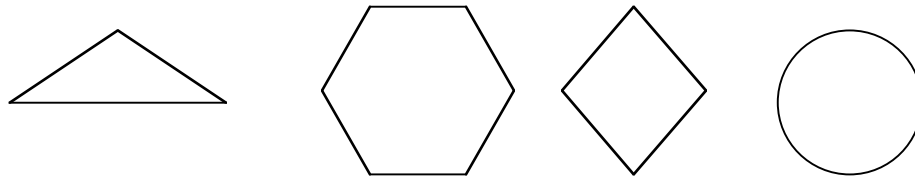


4. Tick the shapes you would use to make the shape in the box.

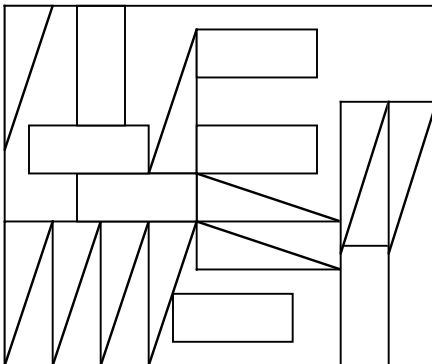
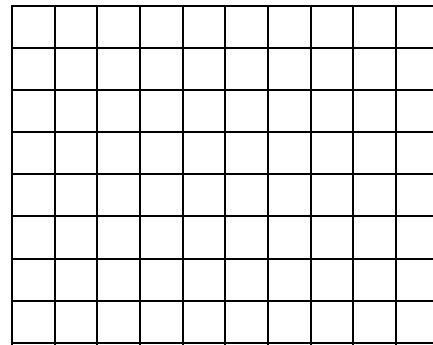
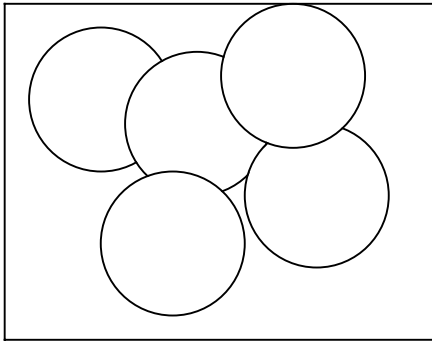


STAGE 3: 4 QUESTIONS

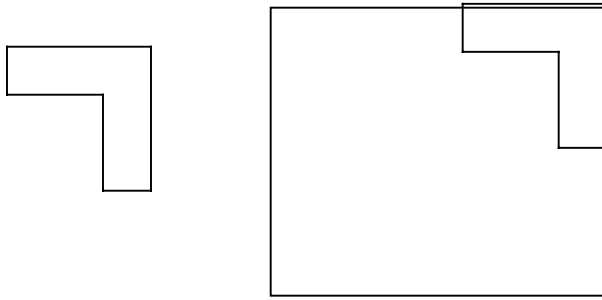
5. Circle the shapes that have rotational symmetry



6. Colour the tessellating pattern.



7. Use this shape to make and continue a tessellating pattern in the box.



8. In the rectangle below create a pattern for paving – it must be a tessellating pattern and it must use rectangular or square pavers.



STAGE 3 OUTCOME ASSESSMENT MAPPING GRID

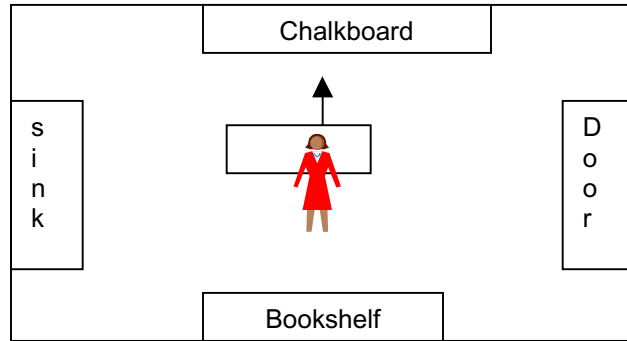
Stage of Task	3 SPACE
Outcome	4. Position
Outcome Descriptor	Uses simple coordinates or compass points to describe position, and marks out points on a grid.
Stage	Number of Indicator Questions
1	1
2	2
3	5

Question	1	2	3	4	5	6	7	8				
Stage	1	2	2	3	3	3	3	3				
Indicator Description												
<ul style="list-style-type: none"> describes the position of an object in relation to self, eg the ball is on my right describes the position of an object in relation to other objects, eg the bins are next to the gate 	*											
<ul style="list-style-type: none"> draws and describes a path or route on a model or plan 		*										
<ul style="list-style-type: none"> constructs simple maps or plans 			*									
<ul style="list-style-type: none"> states the position of a given point on a grid in terms of coordinates 				*								
<ul style="list-style-type: none"> plots a point using given coordinates states the position of a given point on a grid in terms of coordinates finds a place on a map or directory given its coordinates 					*							
<ul style="list-style-type: none"> use a compass to show north determines the direction north, south, east or west, given any major compass direction 						*						
<ul style="list-style-type: none"> determines the direction north, south, east or west, given any major compass direction 							*					
<ul style="list-style-type: none"> describes position of one place relative to another, eg Perth is west of Sydney 								*				

**ASSESSMENT TASK FOR STAGE 3
SPACE 4: POSITION**

STAGE 1: 1 QUESTION

1. Look at the plan of the classroom. The student is seated facing towards the chalkboard

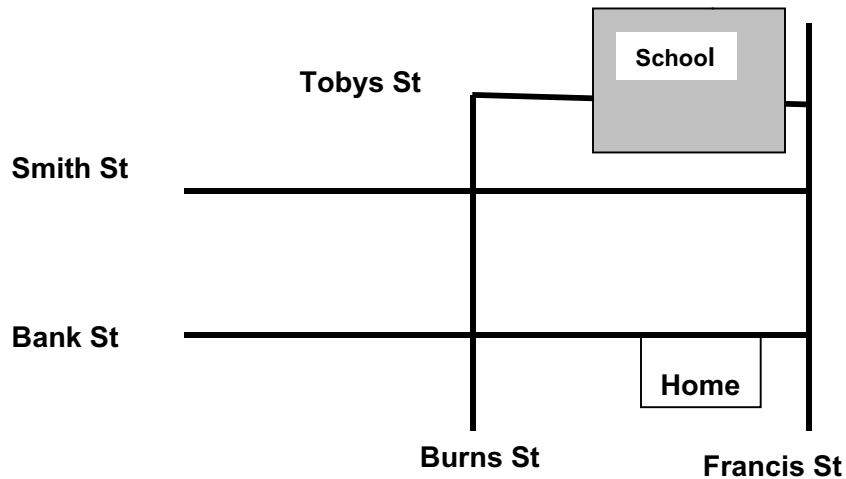


Circle the correct answer.

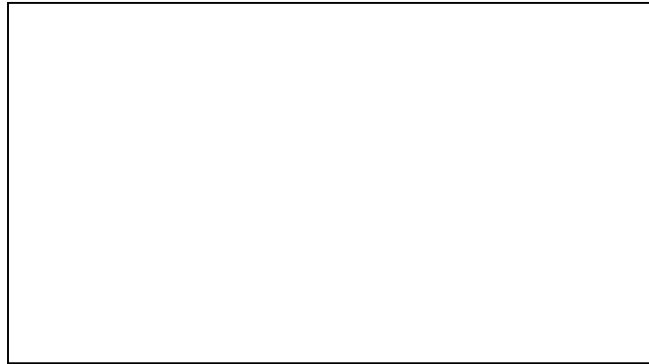
- a) The chalkboard is in front of the student. Yes No
- b) The student is between the sink and the door. Yes No

STAGE 2: 2 QUESTIONS

2. On the map draw the most direct path from home to school travelling down streets. Then, in words describe how you got there.

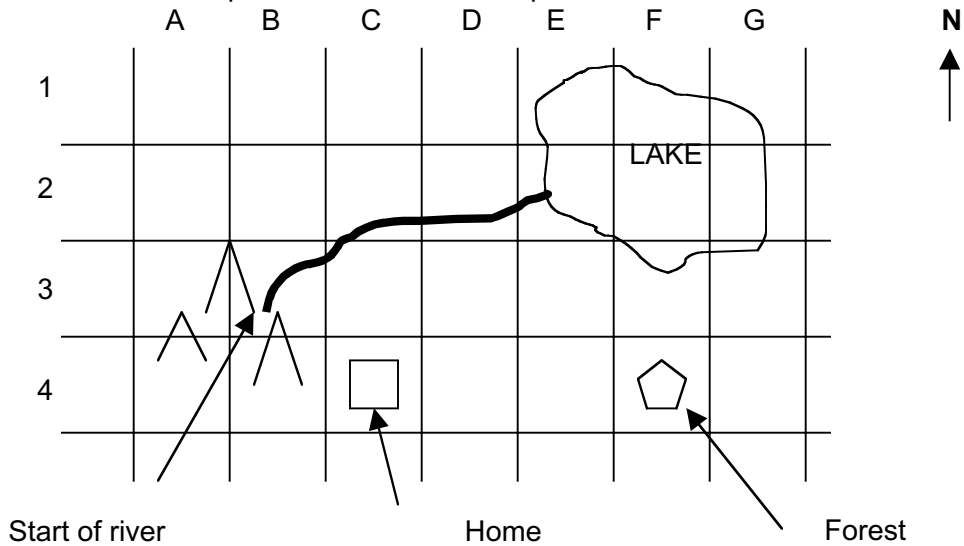


3. On the grid draw a plan of your classroom. Include things like some desks, door, cupboards, tote tray shelves, windows etc.



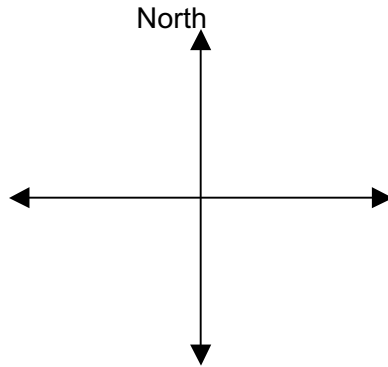
STAGE 3: 5 QUESTIONS

4. Look at the map and then answer the questions.

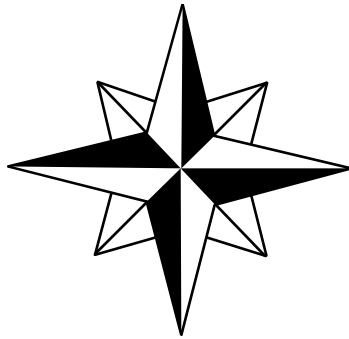


- a) What are the coordinates of the forest? _____
- b) Draw a car at **D4**.
- c) What direction is the lake from the home? _____
5. What is the name given to the lines that indicate the position of objects on a map. Circle the correct answer.
- grid lines
 - Obtuse lines
 - Parallel lines
 - Angle grid lines

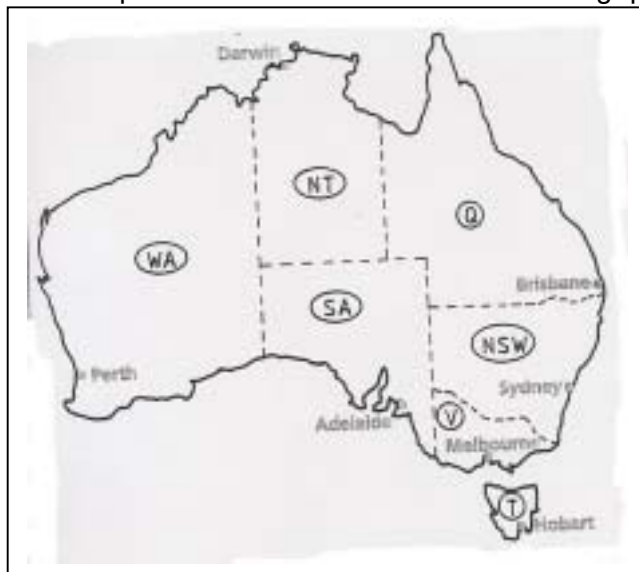
- 6 Add South, East and West to the compass below.



7. Write on the compass the point showing South East.



8. Examine the map of Australia and answer the following questions



- a) Which is the first state east of Western Australia (WA)? _____
- b) Name the state south of Victoria (V). _____
- c) Name a capital city north of Brisbane. _____
- d) What capital city is south west from Sydney? _____

STAGE 3 OUTCOME ASSESSMENT MAPPING GRID
















Stage of Task	3 SPACE
Outcome	5. Data representation
Outcome Descriptor	Displays, reads and interprets a variety of graphs.
Stage	Number of Indicator Questions
1	1
2	2
3	5

Question	1	2	3	4	5	6	7	8				
Stage	1	2	2	3	3	3	3	3				
Indicator Description												
<ul style="list-style-type: none"> • compares pictorial representations of groups, eg birthday charts, pets • reads and interprets graphs made from objects 	*											
<ul style="list-style-type: none"> • records results using tally marks • constructs a column graph 		*										
<ul style="list-style-type: none"> • decides on a suitable question for gathering data 			*									
<ul style="list-style-type: none"> • draws a line graph from simple data • interprets information given in a line graph • makes simple statements about data represented in graphs, eg the rainfall in the winter months is a lot less than in the summer 				*								
<ul style="list-style-type: none"> • constructs and interprets keys on picture graphs • uses a symbol to represent many objects 					*							
<ul style="list-style-type: none"> • compares the sizes of categories shown on a pie graph using informal terminology, eg about one quarter, almost one half 						*						
<ul style="list-style-type: none"> • generates pie or bar graphs using collected data with database or graphing software 							*					
<ul style="list-style-type: none"> • generates pie or bar graphs using collected data with database or graphing software 								*				

**ASSESSMENT TASK FOR STAGE 3
SPACE 5: DATA REPRESENTATION**

STAGE 1: 1 QUESTION

1. a) Count the pictures of each toy and write the number in the box next to the toys.

Item						Number
Cap						
Ball						
Doll						
Toy Car						

- b) Circle the name of the toy which has the most in its group.

- caps
- baseballs
- dolls
- toy cars

- c) Write the names of the groups that have the same number of objects in them.

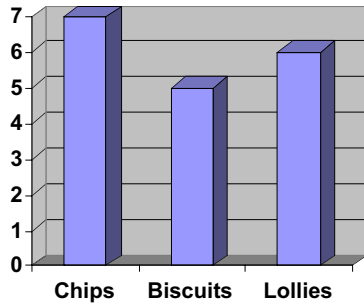
STAGE 2: 2 QUESTIONS

2. In Grade Four, 7 students like to eat chips,
 5 students like to eat biscuits
 6 students like to eat lollies

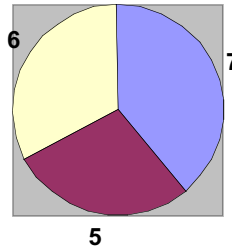
a) Record this information using tally marks.

Food	Tally marks
chips	
biscuits	
lollies	

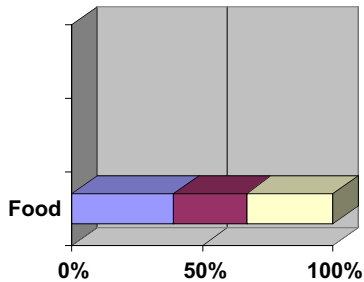
b) Which of the following graphs would represent the information from part (a) as a column graph. Circle your answer.



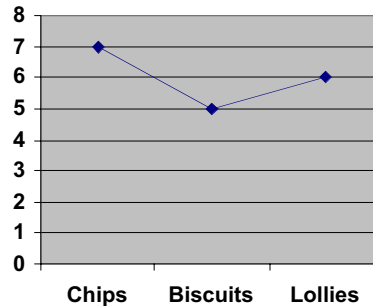
Food



Chips
 Biscuits
 Lollies



Chips
 Biscuits
 Lollies



Food

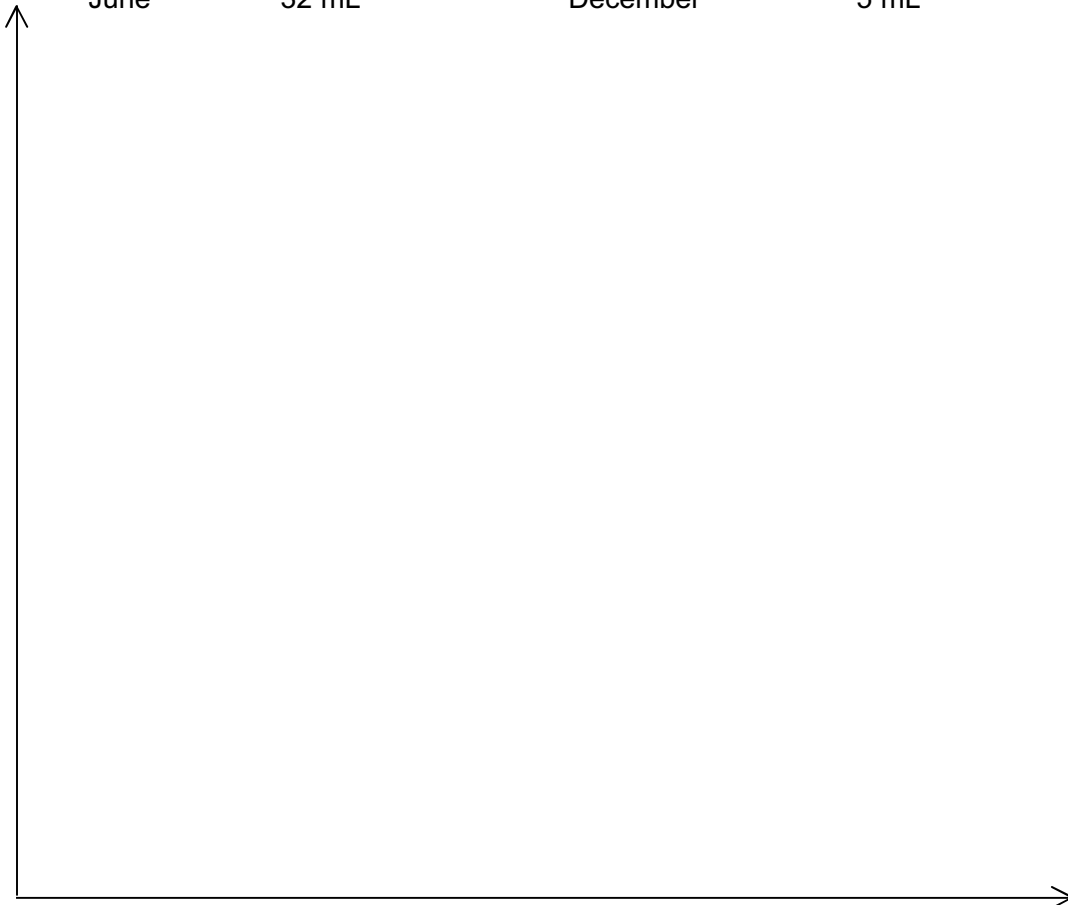
3. If you were asked to find out information on the type of sports people played in your class, circle the best question to ask them?

- What sports do you play?
- What sports do you like to watch?
- What sports do your friends like?
- Do you play rugby as sport?

STAGE 3: 5 QUESTIONS

4. Draw a line graph based on these rainfall figures.

January	15mL	July	26 mL
February	12 mL	August	23 mL
March	20 mL	September	20 mL
April	26 mL	October	12 mL
May	30 mL	November	8 mL
June	32 mL	December	5 mL



a) What month had the most rain? _____

b) What was the total rainfall for December, January and February?

c) Which is the driest month? _____

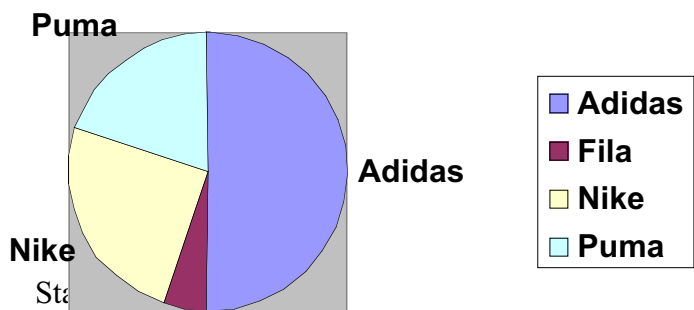
5. Construct a picture graph of insects found in the garden if there were
12 butterflies
25 spiders
10 caterpillars

In your graph use = 5 butterflies

 = 5 spiders

 = 5 caterpillars

6. Examine the chart below on the runners a class wear. Then answer the following questions.

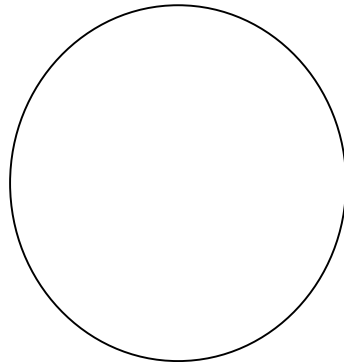


In a class of 30 students what fraction prefer Nike shoes. Circle your answers.

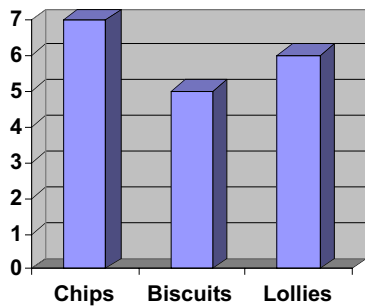
- $\frac{1}{3}$
- $\frac{1}{10}$
- $\frac{1}{5}$
- all

7. Draw the appropriate chart below on the circle below to represent the following information.

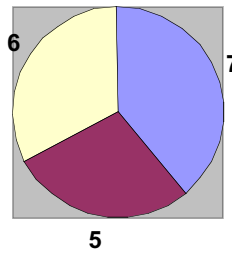
Car	Number
Holden	10
Ford	7
Toyota	3



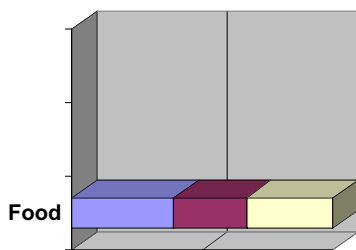
8. Circle the bar graph from the selection below.



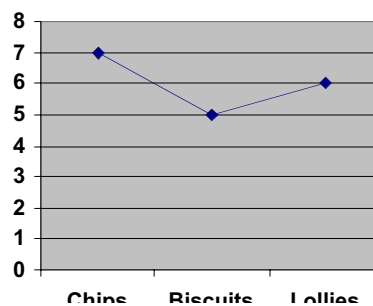
Food



Chips
Biscuits
Lollies



Chips
Biscuits
Lollies



Food