



Makes Maths Fun

Level 5 POSITION

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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Position

Level 5 is designed for students in their fifth year at school often called Year 4. Students will use simple maps and grids to represent position and follow routes.

Knowledge: Students will find items on a map using coordinates.



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 play "Blind Noughts and Crosses".



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 complete "Teddies Puzzle".



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 teddies of different colours and sizes and describe the teddies in relation to each other.



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 use a 6x6 grid and 16 teddies to play "Honeyships".

Evaluation: Suggested questions provide a starting point for discussions related to Position.



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

Students will find items on a map using coordinates.

12												
11												
10												
9												
8												
7												
6												
5												
4												
3												
2												
1												
	A	B	C	D	E	F	G	H	I	J	K	L

Position - Level 5 - Students will use simple maps and grids to follow routes.

Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluation

1. Start at C2, move Up 4 boxes and Right 3 boxes. Draw what you find.

2. Start at J11, move South 3 boxes left 8 boxes and Down 6 boxes. Draw what you find.

3. Start at L1, move Up 4 boxes, West 4 boxes and draw a shell.

4. Start at C12, move Down 2 boxes, Right 8 boxes and South 2 boxes. Draw what you find.

5. Start at B2, move North 7 boxes, East 2 boxes and North 2 boxes. Draw a bird.

6. Start at A7, move Right 7 boxes, and Down 2 boxes. Draw what you find.

7. Start at G9, move Left 4 boxes, South 5 boxes, and Left 2 boxes. Draw a Leaf.

8. Start at A12, move East 8 boxes, West 3 boxes, and Down 3 boxes. Draw a Cloud.

9. Start at J3, move Left 1 box, North 4 boxes, Right 3 boxes, and North 5 boxes. Draw a Sun.

10. Start at F6, move Right 2 boxes, North 5 boxes, and West 4 boxes. Draw what you find.



Let's Try This Again



Progress To Comprehension



Name: _____

Comprehension

Play the game "Blind Noughts and Crosses" where you take it in turns to be the recorder and the direction giver for this game.

You Will Need:

- 2 players
- The recording sheet below
- A pen or pencil

How To Play:

1. Players sit back to back with Player 1 having the recording sheet and a pencil while Player 2 has nothing.
2. Player 1 is the recorder and has the first turn to place an X at their chosen location. They tell their opponent where the cross was placed ie. top left, top centre, top right etc as shown on the recording sheet.
3. The opponent who cannot see the sheet goes second and must give a location where they would like their circle to be placed.
4. Players take it in turns to place crosses and circles until one player makes a line of 3 crosses or circles.
5. Players then swap roles, the recording sheet and pencil and play another round of the game. Players can play up to 6 rounds on 1 recording sheet.

Top Left	Top Centre	Top Right
Middle Left	Centre	Middle Right
Bottom Left	Bottom Centre	Bottom Right

Top Left	Top Centre	Top Right
Middle Left	Centre	Middle Right
Bottom Left	Bottom Centre	Bottom Right

Top Left	Top Centre	Top Right
Middle Left	Centre	Middle Right
Bottom Left	Bottom Centre	Bottom Right

Top Left	Top Centre	Top Right
Middle Left	Centre	Middle Right
Bottom Left	Bottom Centre	Bottom Right

Top Left	Top Centre	Top Right
Middle Left	Centre	Middle Right
Bottom Left	Bottom Centre	Bottom Right

Top Left	Top Centre	Top Right
Middle Left	Centre	Middle Right
Bottom Left	Bottom Centre	Bottom Right



Let's Try This Again

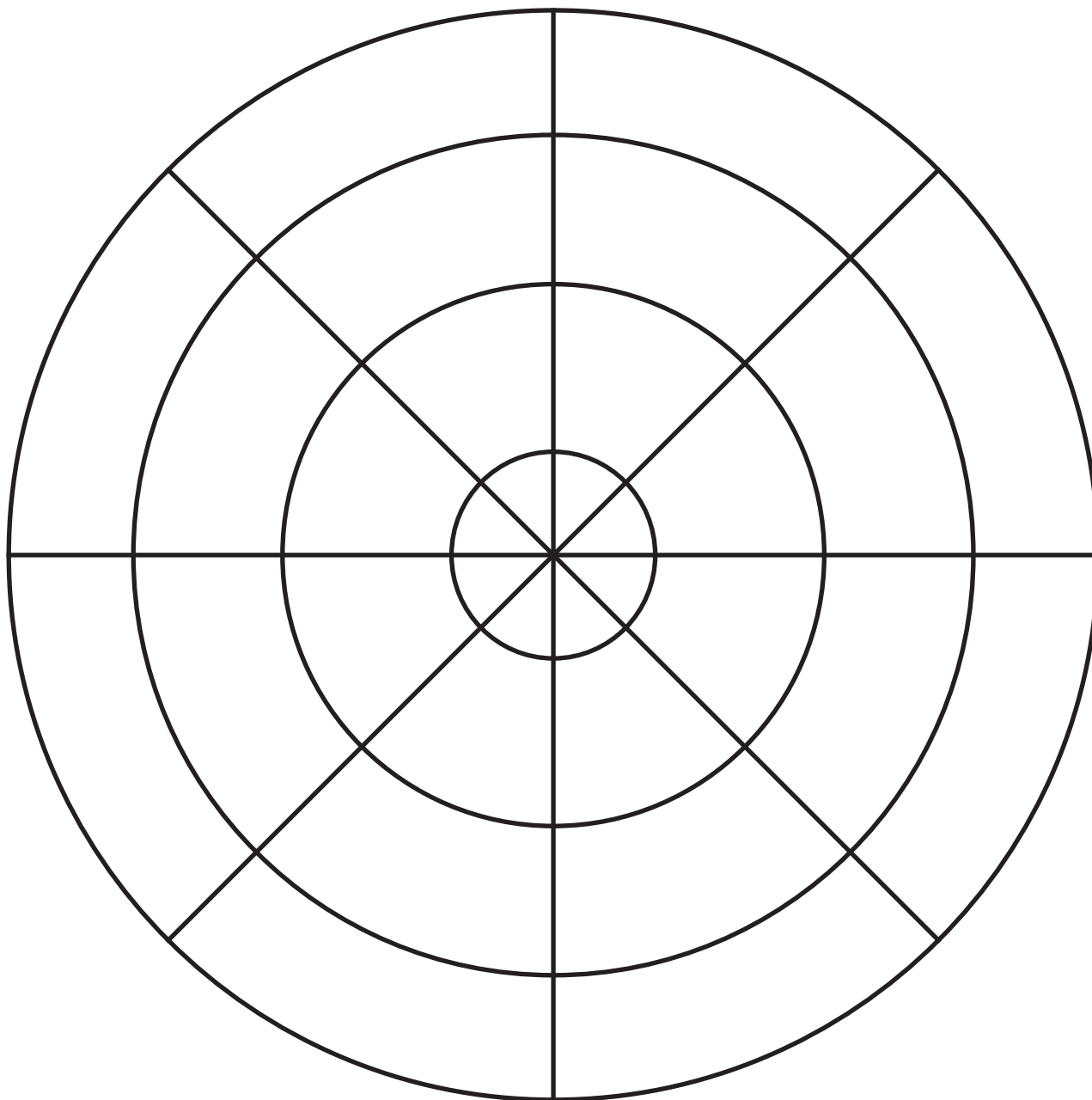


Progress To Application

Name: _____

Application

See if you can solve the "Teddies Puzzle". On the shape below you need to place 8 counters or teddies so that there are 2 teddies on every circle and straight line.



Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluation

Position - Level 5 - Students will use simple maps and grids to follow routes.



Let's Try This Again

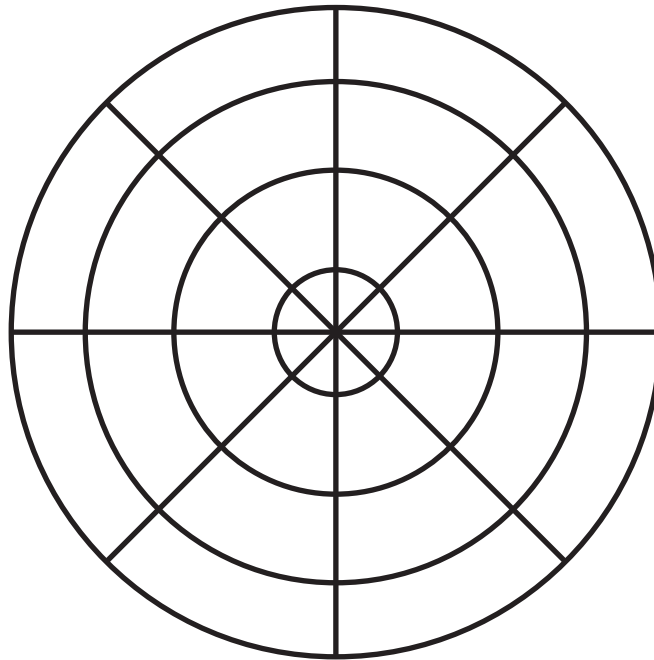
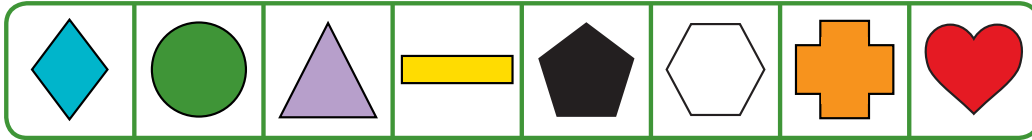


Progress To Analysis



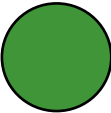
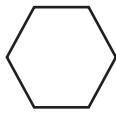
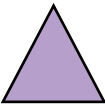



Name: _____

Analysis

Redraw your solution from the application activity using the given shapes instead of teddies.



Describe each shape in relation to at least 2 other shapes ie, the red heart is on the same circle as the green circle and the same line as the purple triangle or the yellow rectangle is 2 circles north of the black pentagon and 1 section to the left of the white hexagon.



Let's Try This Again



Progress To Synthesis

Name: _____

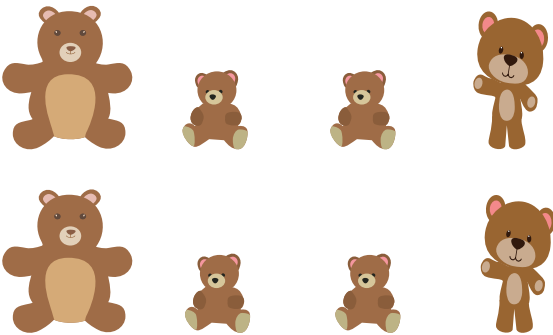
Synthesis

Using the grid below and 16 counters or teddies play the game "Honeyships". This is just like Battleships but sweeter.

With a divider between you and your opponent or facing back to back place your teddies on the grid below marked "Your Teddies".

The teddies cover 12 spaces but there are 2 large teddies which take up 4 boxes, 2 medium sized teddies which take up 2 boxes each and 4 small teddies which each take up 1 box.

Players take it in turns to ask for coordinates where they might catch the bears stealing honey. If they catch a teddy, they receive that bear from their opponent until all 16 teddies have been stopped. The first to capture all their opponents' teddies wins.

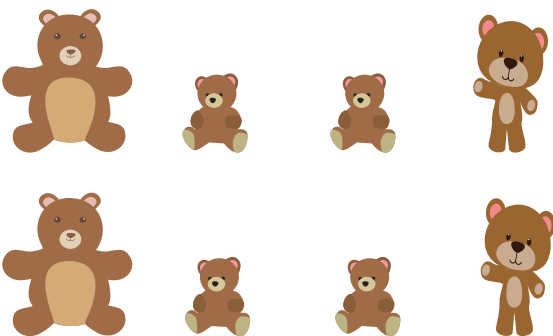


Your Teddies

F						
E						
D						
C						
B						
A						
	1	2	3	4	5	6

Captured Teddies

F						
E						
D						
C						
B						
A						
	1	2	3	4	5	6



Let's Try This Again



Progress To Evaluation

Evaluation

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



Ask students to suggest methods for improving their chances of winning at honeyships.



Did students find that their ability to visualise positions improved with multiple playings on "Blind Noughts and Crosses"?



Could they play blind Honeyships and if not why not?



Using the directions students wrote in the Analysis section, can classmates recreate their shape positions?



When do we use grid references these days now that we have Google maps not street directories?



Show students how Google maps uses grids and directions to find locations.

