BLOOMSM4TH
Makes Maths Fun

Level 1

Data & Graphing

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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Also Available in the Level 1 Program

Whole Number
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Length
Area
Volume
Mass
Time
3D Shape
2D shape
Position

BLOOMSM4TH
Makes Maths Fun

Level 1

Data & Graphing

Level 1 is designed for students in their first year at school. The Data & Graphing strand allows students to represent and interpret data from simple graphs.

Knowledge: Students convert a pictograph into a column graph and answer questions related to it. A high level of scaffolding is provided for this activity.

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 use the shapes provided to create a simple pictograph and answer a series of questions related to data they have graphed.

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 graph the shapes provided on the column graph and answer questions related to this such as how many of each shape are on the graph and which shape occurs most and least often.

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 use the shape data provided to create another pictograph but this time individual pictures are not provided. Once the graph has been created students must answer questions about the graph.

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 shape information given to build a column graph and must answer questions related to this graph such as the shape that occurs most and least often.

Evaluation: Suggested questions and activities provide a starting point for discussions related to Data & Graphing such as whether it is easier to read a pictograph or a column graph and why this may be.

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: _____

Making A Column Graph

Convert the pictograph below into a column graph and answer the questions about it.

8				△
7				△
6		●		△
5		●		△
4	▭	●		△
3	▭	●		△
2	▭	●	✶	△
1	▭	●	✶	△
	Rectangles	Circles	Stars	Triangles

8				
7				
6				
5				
4				
3				
2				
1				
	Rectangles	Circles	Stars	Triangles

1. Which shape was most common? _____

2. Which shape was least common? _____

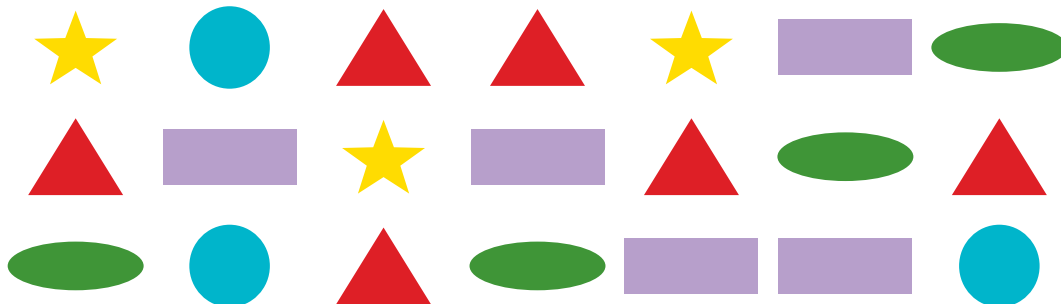3. How many shapes were graphed? _____

🌼 Let's Try This Again   🐞 Progress To Comprehension

DG 1 KN

Name: _____

Making A Graph

Use the shapes to make a pictograph and answer the questions about it.

6					
5					
4					
3					
2					
1					
	▲	★	⬭	⬤	▬

1. How many triangles are there? _____

2. How many stars are there? _____

3. How many ovals are there? _____

4. How many circles are there? _____

5. How many rectangles are there? _____

6. Which shape occurs most often? _____

7. Which shape occurs least often? _____

8. Which 2 shapes occur the same number of times? _____

9. How many shapes did you draw on the graph? _____
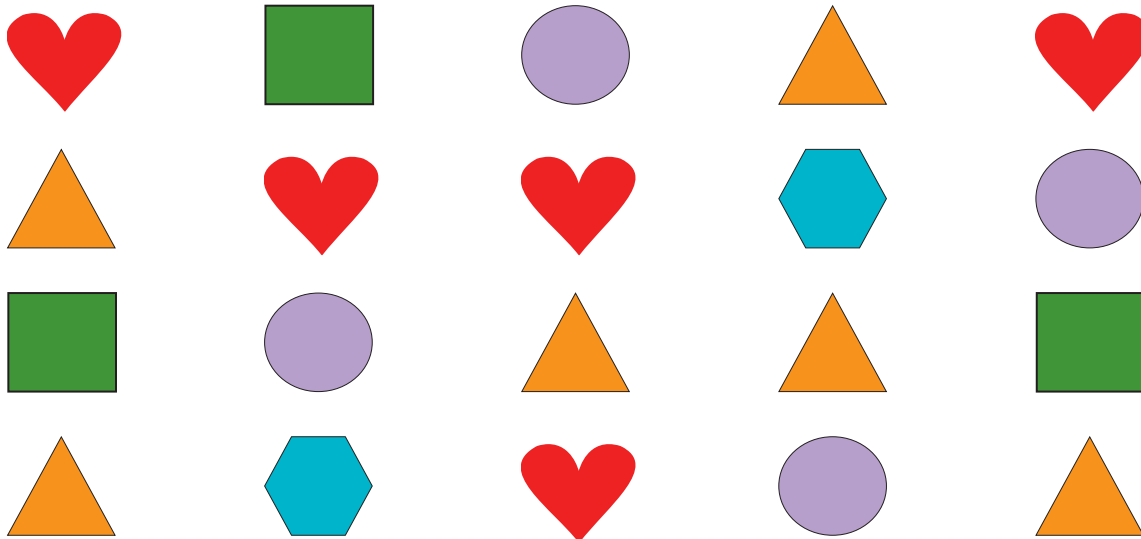
Let's Try This Again   Progress To Application

DG 1 CP

Data & Graphing - Level 1 - Students will represent and interpret data from simple graphs.

Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

BLOOMSMATH

Name: _____

Using A Graph

Use the shapes to make a column graph and answer the questions about it.

6					
5					
4					
3					
2					
1					
	❤	🔺	🟩	⬡	🟣

1. How many hearts are there? _____
2. How many triangles are there? _____
3. How many squares are there? _____
4. How many hexagons are there? _____
5. How many circles are there? _____
6. Which shape occurs most often? _____
7. Which shape occurs least often? _____
8. How many shapes are on the graph? _____

Let's Try This Again   Progress To Analysis

Data & Graphing - Level 1 - Students will represent and interpret data from simple graphs.

Knowledge
Comprehension
Application
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Synthesis
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BLOOMSMATH

Name: _____

Pictographing Again

Use the shape information to make a pictograph and answer the questions about it.

❤️	5
🔺	7
✴️	2
🔵	4
▬	3

7					
6					
5					
4					
3					
2					
1					
	❤️	🔺	✴️	🔵	▬

1. How many hearts are there? _____
2. How many triangles are there? _____
3. How many stars are there? _____
4. How many circles are there? _____
5. How many rectangles are there? _____
6. Which shape occurs most often? _____
7. Which shape occurs least often? _____
8. How many shapes are on the graph? _____

Let's Try This Again   Progress To Synthesis

DG 1 AN

Name: _____

More Graphing With Columns

Use the shape information to make a column graph and answer the questions about it.

▲ (red triangle)	8
⬡ (orange hexagon)	4
■ (yellow square)	10
★ (green star)	6
● (purple circle)	5

	▲	⬡	■	★	●
10					
9					
8					
7					
6					
5					
4					
3					
2					
1					
	▲	⬡	■	★	●

1. How many hearts are there? _____
2. How many triangles are there? _____
3. How many stars are there? _____
4. How many circles are there? _____
5. How many rectangles are there? _____
6. Which shape occurs most often? _____
7. Which shape occurs least often? _____
8. How many shapes are on the graph? _____

Let's Try This Again   Progress To Evaluation

DG 1 SS

Data & Graphing - Level 1 - Students will represent and interpret data from simple graphs.

Knowledge
Comprehension
Application
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BLOOMSM4TH

Data & Graphing Discussion

Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluation

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

Is it easier to make a pictograph or a column graph? Why? Which is quicker to make? Why?

Is it easier to read a pictograph or a column graph? Why?

Why do we need to be able to read graphs? When are they used in society?

Why do the pictures in various columns have to be the same size in a pictograph?

Why do we make columns on a column graph different colours?

Use stips of coloured paper to meaure the students feet or head circumference and use these to make a pretty graph for the students.