



Makes Maths Fun

Level 2

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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Data & Graphing

Level 2 is designed for students in their second year at school often called Year 1. The Data and Graphing strand allows students to gather and organise data using both column and picture graphs and interpret the results.

Knowledge: Students will convert the given pictograph into a column graph and answer questions related to the data provided.



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 use the given pictures to make tally marks and then use the tally marks to make a column graph so that they can answer data related questions.



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 use the calendar provided to answer questions and add additional information and mark requested dates.



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 the fast food menu provided to find information to allow them to answer a number of questions about actual and comparative prices.



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 dice and tally marks to create a many to one graph where 1 star is equal to 2 rolls of a given number and $\frac{1}{2}$ a star equals 1 roll. They will answer questions related to the information gathered.

Evaluation: Suggested questions provide a starting point for discussions related to Data and Graphing.



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: _____

Pictograph To Column Graph

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

5				
4				
3				
2				
1				
	1 Scoop	2 Scoops	3 Scoops	4 Scoops

5				
4				
3				
2				
1				
	1 Scoop	2 Scoops	3 Scoops	4 Scoops

- Which number of scoops was most popular? _____
- Which number of scoops was least popular? _____
- How many ice cream cones were purchased altogether? _____
- How many scoops of ice cream were purchased altogether? _____



Let's Try This Again




Progress To Comprehension






Name: _____

Tally The Cup Cakes


Tally up the cupcakes and then use this information to complete the column graph and answer the questions.





Cup Cake Flavours	Number of Cup Cakes
Chocolate	
Strawberry	
Caramel	
Banana	










10				
9				
8				
7				
6				
5				
4				
3				
2				
1				
	Chocolate	Strawberry	Caramel	Banana

1. Which flavour was most popular? _____
2. Which flavour was least popular? _____
3. Which 2 flavours were equally popular? _____ and _____
4. Which is your favourite flavour? _____



Let's Try This Again



Progress To Application

Name: _____

Seize The Day

Use the calendar provided to mark and answer questions about various dates.

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

1. How many days in this calendar month? _____
2. Could this month be February? Yes/No Why? _____
3. How many Wednesdays are there in this month? _____
4. Put a red circle on the second Saturday?
5. Put a blue cross on the day a week after Monday the 15th.
6. Draw a balloon on the number of your birthday date?
7. What day is the 3rd? _____
8. What date is the 3rd Thursday? _____
9. What is the date a fortnight after Tuesday the 9th? _____
10. What day of the week will the next month start on? _____



Let's Try This Again

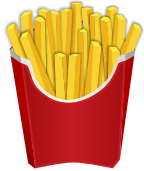


Progress To Analysis

Name: _____

Menu Time

Read the menu below to help you answer the questions.



Item	Small	Medium	Large
Milkshake	\$2.50	\$3.00	\$3.50
Chips	\$4.00	\$5.00	\$6.00
Soda	\$1.80	\$2.40	\$3.00
Frozen Soda	\$2.20	\$3.00	\$3.80
Garden Salad	\$3.50	\$4.50	\$5.50
Fruit Salad	\$3.50	\$4.50	\$5.50
Baked Custard	\$2.10	\$2.40	\$2.70



Data - Level 2 - Students will gather, organise and interpret data using column and picture graphs.

Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluation

1. What is the cheapest item on the menu? _____
2. What is the most expensive item on the menu? _____
3. How much is a small chips? _____
4. How much is a large frozen soda? _____
- 4.. How much is a medium chips and a small milkshake? _____
5. . How much is a large fruit salad? _____
6. What other large item is the same price? _____
7. How much more is a large Milkshake than a large soda? _____
8. Which item costs the same amount as a medium milkshake? _____
9. Which item is 10c more expensive than a small baked custard? _____
10. If you have \$10 what would you buy? _____




Let's Try This Again



Progress To Synthesis



Name: _____

Stars And Stripes

Roll 2 dice 20 times and tally how often each number is rolled. Then convert these tally marks into stars - 1 star is equal to 2 rolls of a given number and $\frac{1}{2}$ a star equals 1 roll. Ie. If 4 is rolled 7 times the graph would show 

Number	Times Rolled - Tally Marks
1	
2	
3	
4	
5	
6	

Number	Times Rolled - Stars - ★ = 2 Tally Marks
1	
2	
3	
4	
5	
6	

1. Which number was rolled most often? _____
2. Which number was rolled least often? _____
3. How many rolls would  represent? _____
4. How many rolls would  represent? _____
5. If 1 star represented 4 rolls how many stars would be needed for:
 - a. 8 rolls? _____
 - b. 12 rolls? _____
 - c. 10 rolls? _____
 - d. 7 rolls? _____



Let's Try This Again



Progress To Evaluation

Data and Graphing Discussion

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



What is the difference between a pictograph and column graph and why do we use column graphs over pictographs?



Why do we use tally marks? Is there another way we could record the results more easily?



Are all calendars the same? Why do some start on different days of the week? Do any start on a Wednesday? Why Not?



Have students help you construct a timetable for their weekly class activities so they can see how time based charts are created and how the time could be on the vertical or horizontal axis.



Look at the many to one graph in the Synthesis section and discuss when this may be a valid graphing technique. Is it easier or harder to interpret the results?

Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

Data - Level 2 - Students will gather, organise and interpret data using column and picture graphs.

