BLOOMSM4TH

Makes Maths Fun

Level 6

DATA & GRAPHS

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 6

Data & Graphs

Level 6 is designed for students in their sixth year at school often called Year 5. Students will display and interpret data in graphs with scales of many-to-one correspondence.

Knowledge: Students will answer data questions to solve a riddle.

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 will complete a survey of the colour of cars which pass the school within a set period of time.

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 will display the results in a line, bar and pie chart.

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 will analyse the graphs to identify which allows for easiest interpretation.

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 will match graphs to the data they represent.

Evaluation: Suggested questions provide a starting point for discussions related to Data & Graphs.

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

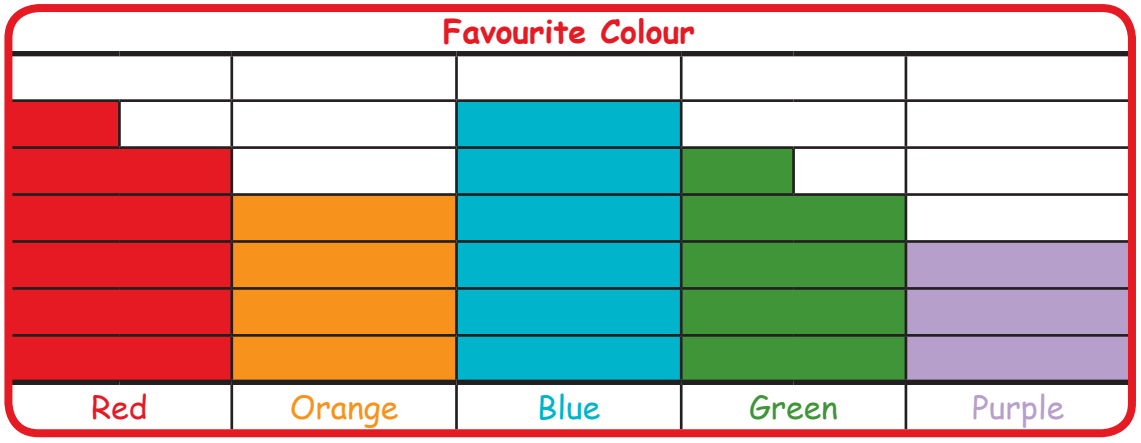
All students should participate in the Evaluation discussion to encourage the use of mathematical language, logical reasoning and reflection on that which they have completed.

Name: _____

Knowledge

Use the graph below to answer the data questions to solve the riddle.

This table shows how many people chose each colour as their favourite. ☐ = 6 people.



A	How many people chose Red?
T	How many people chose Orange?
O	How many people chose Green?
I	How many people chose the least popular colour?
Y	How many people chose the most popular colour?
M	How many people were surveyed altogether?
N	How many more people chose Red than Orange?
W	How many fewer people chose Purple than Orange?
E	How many more people chose Blue than Orange?
G	How many people chose Blue and Green together?
H	How many people chose the least popular and most popular colours together?
S	How many people chose a primary colour (red and blue)?

Why was the student upset when his teacher called him average?

18	24		6	33	69		33		138	12	33	9

24	54	18	9	63		24	27		69	33	36

Let's Try This Again

Progress To Comprehension

DG 6 KN

Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

Data & Graphs - Level 6 - Students will use graphs with scales of many-to-one correspondence.

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Name: _____

Comprehension

Using the table below create a survey of your own. This could be the colour of cars which pass the school in 10 minutes, the type of food everyone has brought to school today, the season of people's birthdays.

You must include at least 4 possible options and collect at least 20 pieces of data using a many to one ratio for your graph depending on how much data you collect.

Title:

Scale used: ☐ = _____

What did you survey?

What was the most popular result?

What was the least popular result?

How many pieces of data did you collect altogether?

Name: _____

Application

The data collected in the Comprehension section was a bar graph. In the space below create a line graph and then use your line graph to make a pie chart. Remember to use a many to one ratio to help you with this.

The bar graph is at the bottom of the page so you can cut it out and use it to create the circumference of your pie chart.

Let's Try This Again

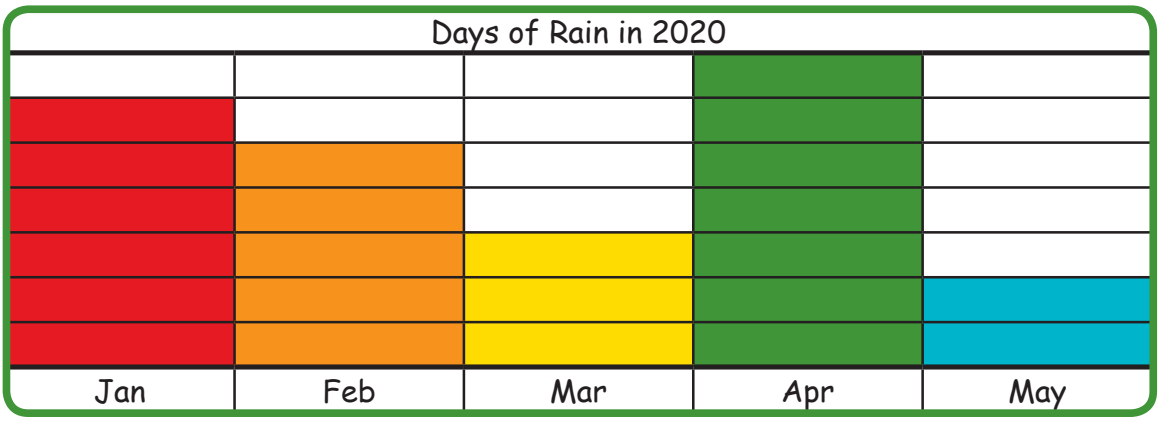
Progress To Analysis

(In the blank space record what each coloured section represents.)

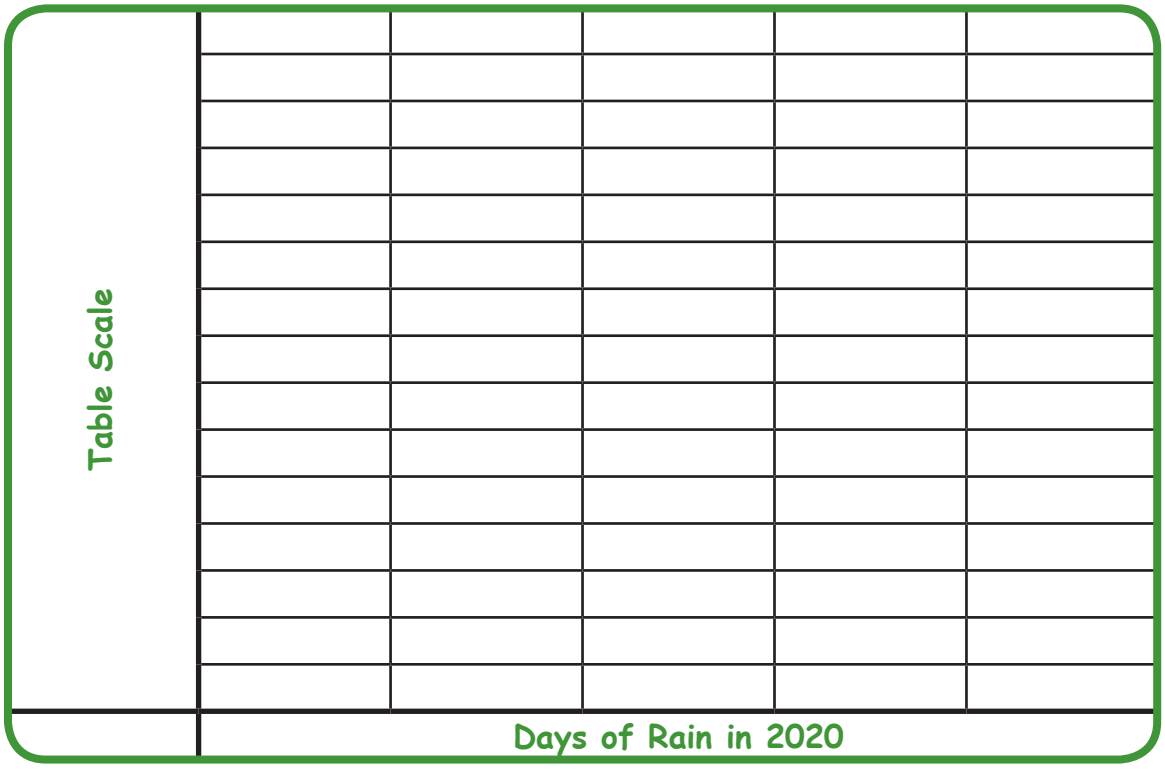
Name: _____

Analysis

Turn each bar graph below into a line graph.



Scale: ☐ *= 2 Days*

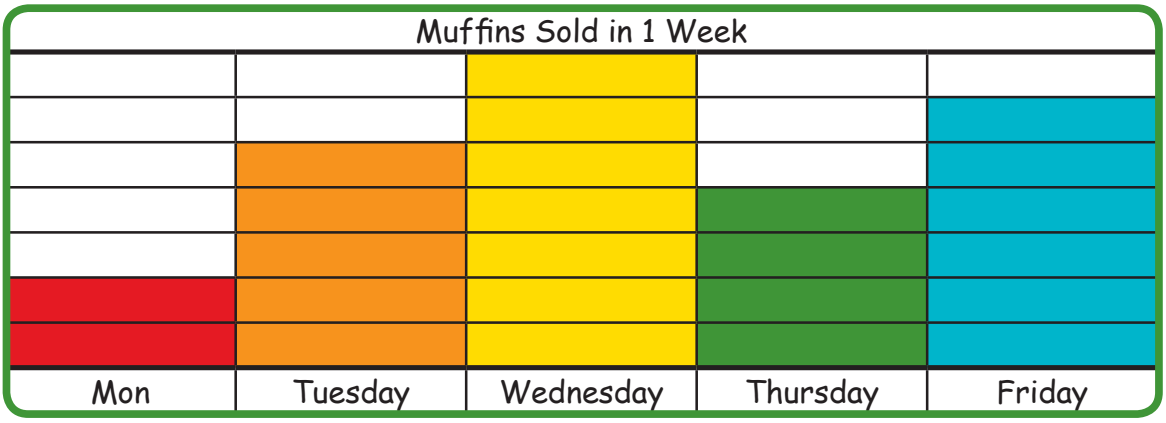


Let's Try This Again

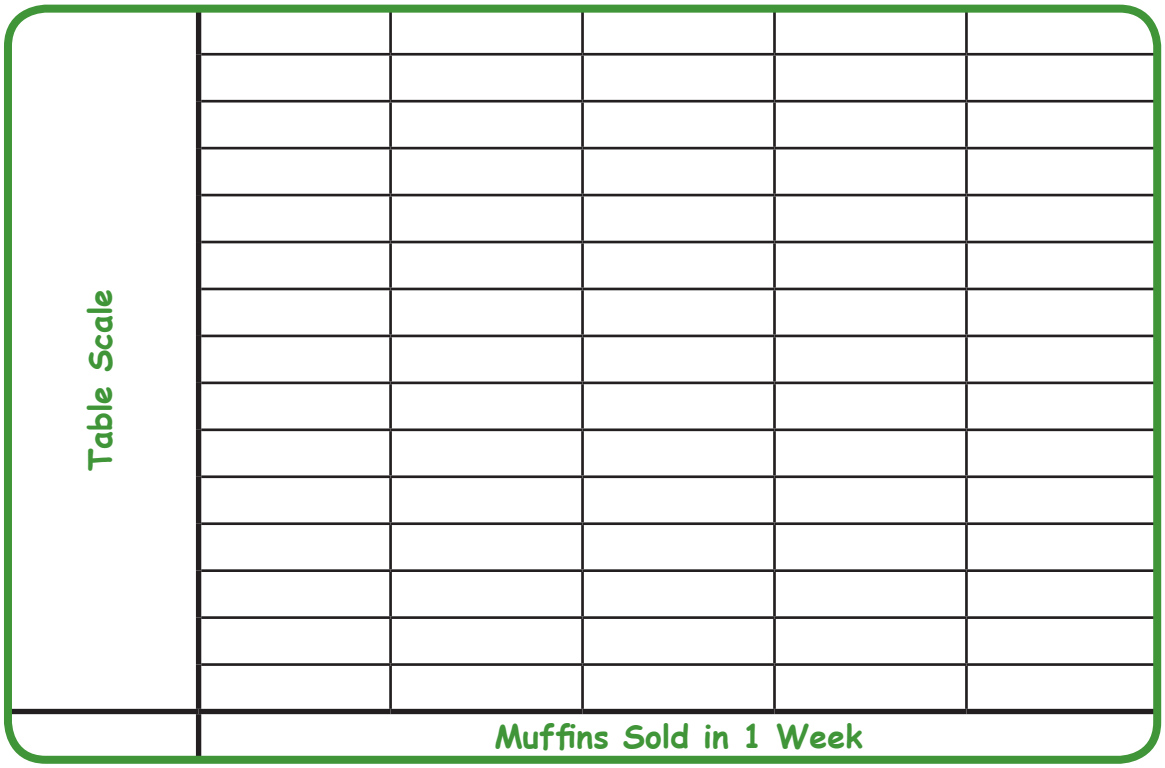
Progress To Synthesis

Name: _____

Analysis Part 2



Scale: ☐ *= 5 Muffins*



Let's Try This Again

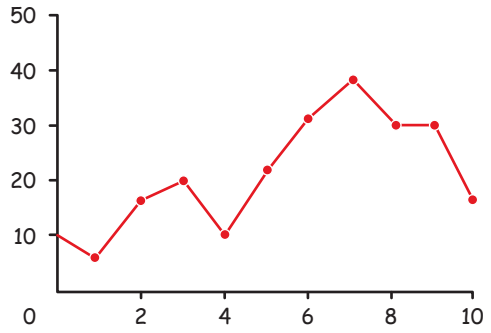
Progress To Synthesis

Name: _____

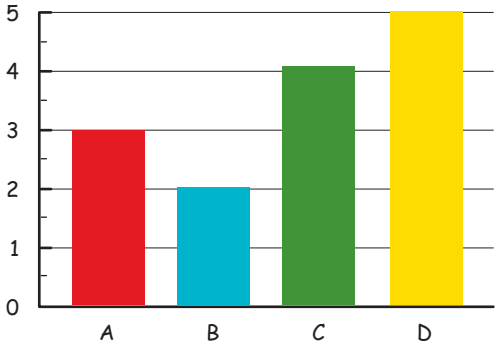
Synthesis

For each graph below give an example of when this may be used to display data.

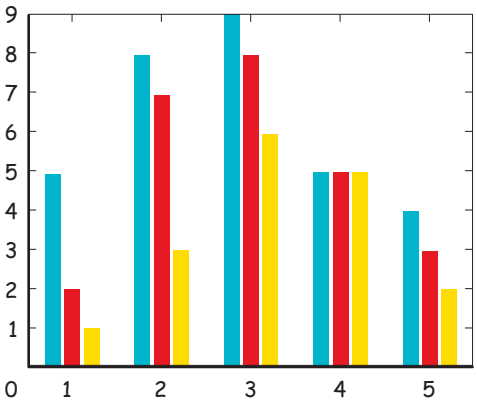
Line Graph



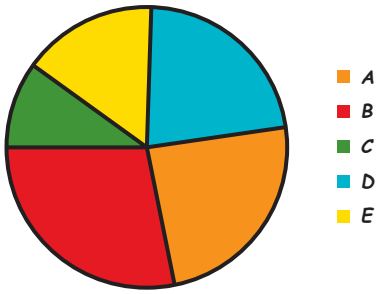
Bar Graph



3-Axis Bar Graph



Pie Graph



Bar Graph

Let's Try This Again

Progress To Evaluation

Data & Graphs - Level 6 - Students will use graphs with scales of many-to-one correspondence.

Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

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Evaluation

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

Compare student's surveys and which were easy and hard to collect data for?

Did more data make it easier or harder to make the graph?

Which graph was the easiest to make?

Did more data make it easier or harder to make a pie graph or did it not matter – why?

Which graphs did students suggest for the Synthesis section? Share there results and compare answers.

Discuss which graph is easiest to read and presents information most clearly?