



# St John Fisher RC Primary School

## Year 6 Maths Knowledge Organiser

### Spring 2 Block 6 – Statistics (1)

#### Objectives

Teacher

- I can interpret and construct line graphs and use them to solve problems.
- I can interpret and construct dual bar charts and use them to solve problems.

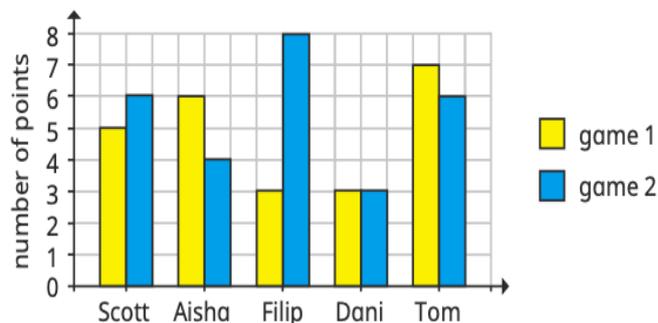
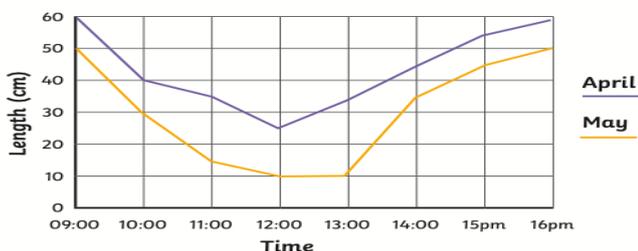
#### Line Graphs & Dual Bar Charts

Line graphs are used to show changes to a measurement over time.

Data shown in a line graph is continuous. Sets of points are joined together to make the line.

A bar chart has a horizontal axis and a vertical axis. Bars show the data value of each category. There must be a gap between each bar. The scale of the bar chart is chosen based on the data range.

**A line graph to show the length of shadows over time**



#### Key Vocabulary

<b>bar chart</b>	Data values shown in bars on a graph.
<b>pictogram</b>	Data values represented with pictures.
<b>frequency table</b>	Table to shows the frequency of given occurrences.
<b>tally chart</b>	Chart used to count quick 'marks' of occurrences.
<b>pie chart</b>	Data represented as a part of a circle.
<b>discrete data</b>	Fixed data in the form of whole numbers or integers that can be counted.
<b>continuous data</b>	Data that is not fixed and that can be measured e.g. height or weight of a person.
<b>line graph</b>	Data values shown across a line to show measurement changes over time.
<b>interpret</b>	To explain the meaning of something.
<b>Mean average</b>	To find the average of a set of data by adding up the total of a set of values and dividing it by the number of values that there are.

#### Sentence Stems

The horizontal axis shows _____	The first bar represents _____
The vertical axis shows _____	The second bar represents _____

#### Assessment



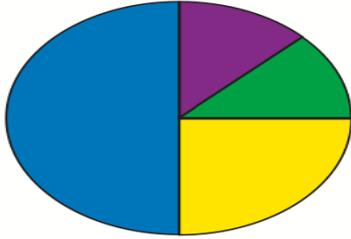
# St John Fisher RC Primary School

## Year 6 Maths Knowledge Organiser

### Spring 2 Block 6 – Statistics (2)

Objectives	Teacher
<ul style="list-style-type: none"> <li>I can interpret and construct pie charts and use them to solve problems.</li> </ul>	
<ul style="list-style-type: none"> <li>I can calculate and interpret the mean as an average.</li> </ul>	

#### Mean Average & Pie Charts

<p>The mean is the average of a set of data.</p> <p>To find the mean or average, add up all of the values to find the total. Divide the total by the number of values that you added together. This will give you the mean.</p> <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;">12</td> <td style="padding: 5px;">15</td> <td style="padding: 5px;">10</td> <td style="padding: 5px;">8</td> <td style="padding: 5px;">15</td> </tr> </table> <p><math>12 + 15 + 10 + 8 + 15 = 60</math></p> <p><math>60 \div 5 = 12</math></p> <p>The mean of this data is 12.</p>	12	15	10	8	15	<p>Pie charts represent discrete data.</p> <p>A circle is divided into segments, where each segment represents a data category. The size of each segment matches its proportion of the total amount.</p> <p style="text-align: center;"><b>A pie chart to show children's favourite sports</b></p> <div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 20px;"> <p><b>Key</b></p> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: blue; margin-right: 5px;"></span> swimming</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: yellow; margin-right: 5px;"></span> netball</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: green; margin-right: 5px;"></span> football</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: purple; margin-right: 5px;"></span> gymnastics</li> </ul> </div> </div> <p>24 children were asked in total.</p> <p>Swimming = <math>\frac{1}{2}</math> so <math>\frac{1}{2}</math> of 24 = 12 children</p> <p>Netball = <math>\frac{1}{4}</math> so <math>\frac{1}{4}</math> of 24 = 6 children</p> <p>Football = <math>\frac{1}{8}</math> so <math>\frac{1}{8}</math> of 24 = 3 children</p> <p>Gymnastics = <math>\frac{1}{8}</math> so <math>\frac{1}{8}</math> of 24 = 3 children</p>
12	15	10	8	15		

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Sentence Stems	
One part is worth _____	The mean is the size of each part when the whole is shared _____
If the total is _____, then the part representing ___% is worth _____	The fraction/percentage of _____ is _____

#### Assessment