



HILLSBOROUGH
NURSERY & PRIMARY SCHOOL

Hillsborough primary school
Maths Content and progression

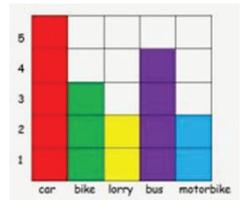
Statistics

Progression of skills overview

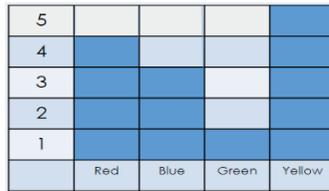
Statistics					
Interpreting, Constructing and Presenting Data					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Interpret and construct simple pictograms, tally charts, block diagrams and simple tables	Interpret and present data using bar charts, pictograms and tables	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs	Complete, read and interpret information in tables, including timetables	Interpret and construct pie charts and line graphs and use these to solve problems
	Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity				
	Ask and answer questions about totalling and comparing categorical data				
Solving Problems					
		Solve one-step and two-step questions [e.g. 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	Solve comparison, sum and difference problems using information presented in a line graph	Calculate and interpret the mean as an average

N.B: Year 1 do not cover statistics.

Year 2.

<u>NC Objective</u>	<u>Learning Objectives</u>	<u>Pre-Learning</u>	<u>Methods for presentation of work</u>	<u>Key ideas for GDS</u>										
<p>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables</p>	<p>-Read information contained within a pictogram. -Read information contained within a simple tally chart. -Read information contained within a block diagram. -Construct a simple table to show information collected (amounts of less than 20). -Construct a pictogram to show information collected (amounts of less than 20) -Construct a simple tally chart to show information collected (amounts of less than 20) -Construct a block diagram to show information collected (amounts of less than 20)</p> <p><u>Vocabulary</u></p> <p>vote table tally, graph, block graph, pictogram represent label, title</p>	<p>To help children understand the way the information is presented in each format, they will be asked various questions.</p> <p>How to analyse information to understand what the total number of people surveyed is.</p> <p>Encourage children to find out their own information. Show them how to record this accurately.</p> <p>Teachers then demonstrate how to convert this information into a pictogram or block diagram.</p>	<p>Pictogram</p>  <p>Tally chart</p> <table border="1" data-bbox="1400 702 1646 885"> <thead> <tr> <th>Favourite sandwiches</th> <th>Names</th> </tr> </thead> <tbody> <tr> <td>Cheese</td> <td>Paul, Lucy, Jim, Noah, Hattie</td> </tr> <tr> <td>Ham</td> <td>Libby, James, Pat, Kim</td> </tr> <tr> <td>Chicken</td> <td>Matt, Naomi</td> </tr> <tr> <td>Jam</td> <td>Dan, Susie, Tim, Hannah</td> </tr> </tbody> </table> <p>Block diagram</p>  <p>Children should be introduced to concept of recording using tally chart. Pictogram and block graph. Provide them with a task of recording the number of various items within the classroom (up to 10 initially and</p>	Favourite sandwiches	Names	Cheese	Paul, Lucy, Jim, Noah, Hattie	Ham	Libby, James, Pat, Kim	Chicken	Matt, Naomi	Jam	Dan, Susie, Tim, Hannah	<p>Think of something you want to find out e.g. What is Class 5's favourite chocolate bar? Collect the data using a tally chart and present it in a pictogram or block diagram.</p> <p>Split into groups. Everyone needs to write their name on a post it note. Using a blank axis of a block diagram, use your post it notes to find the answers to the following questions:</p>
Favourite sandwiches	Names													
Cheese	Paul, Lucy, Jim, Noah, Hattie													
Ham	Libby, James, Pat, Kim													
Chicken	Matt, Naomi													
Jam	Dan, Susie, Tim, Hannah													

most popular, most common
 least popular, least common
 ... many more...



Look at the block above. We asked a group of children, which was their favourite colour.
 -Which colour was most popular?
 -Which colour was least popular?
 Add your favourite colour to the block graph.

then up to 20) that they can record using a tally system.
 They should be taught how to interpret, construct and compare these charts.

Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity

-Identify how many items are in a category in a tally chart, table, pictogram and block diagram by counting.

-Identify the biggest and smallest categories in a tally chart, table, pictogram and block diagram.

-Order the categories on a tally chart, table, block diagram or pictogram.

Vocabulary

- vote
- table
- tally,
- graph, block graph, pictogram
- represent

Provide children with a task of recording the number of various items.

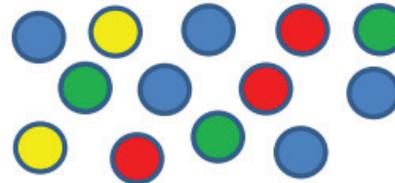
e.g. of Questions How many boys...?

How many girls are there in the group?

How old are the children in your group?

Sorting into categories

e.g. Count the coloured dots. Make a tally chart to show how many dots there are of each colour.



Count the number of objects ...e.g.

Block graph

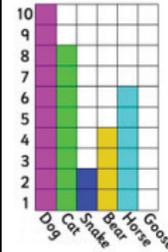
How many people liked dogs the most? Which was the least favourite animal?

Four children played racing games at break time. Each time they won a game they took a counter.

Sam	
Tom	
Sally	
Ally	

Present the information in a different way to make it clearer and answer the following questions:
 Who won the most races?

label, title
 most popular, most common
 least popular, least common



How many more votes did Ally win than Sally?
 Does the information answer the question: Who is the fastest runner?

Ask and answer questions about totalling and comparing categorical data

-Identify the biggest and smallest categories in a tally chart, table, pictogram and block diagram.

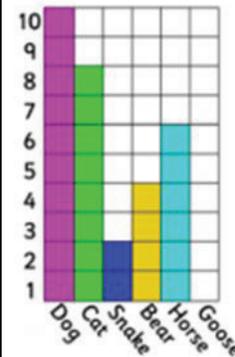
-Order the categories on a tally chart, table, block diagram or pictogram.
 -Add together categories in a tally chart, table, pictogram and block diagram.

-Find the difference between categories on a tally chart, table, block diagram or pictogram.

Vocabulary

Vote
 Data
 table
 tally,
 graph, block graph, pictogram
 represent
 label, title
 most popular, most common
 least popular, least common

Use the bar graph to answer the following questions:
 -How many cats and dogs were there altogether?
 -How many more bears were there than snakes?
 - Add together the animal with the most votes and the animal with the least.
 -How many altogether?



What is the same?
 What is different?

Ice creams sold in one week		Cars in the car park on Monday at 10 o'clock	
Monday	🍦🍦🍦🍦🍦	Red	
Tuesday	🍦🍦🍦🍦	Blue	
Wednesday	🍦🍦🍦	Black	
Thursday	🍦🍦🍦🍦	Silver	
Friday	🍦🍦🍦🍦🍦	White	
Saturday	🍦🍦🍦🍦	Other	
Sunday	🍦🍦🍦🍦		

Harry said 'If I add the number of lorries and bikes together then it will be equal to the number of cars' Is he right?

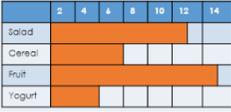
Car	🚗🚗🚗🚗
Bus	🚌🚌🚌
Lorry	🚚🚚
Bike	🚲🚲🚲
Van	🚚🚚

Convince me.

• Lucy says 'To find the total number of vehicles I need to add all the cars up.' **Is she correct?**

				Explain your answer.
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Year 3.

NC Objective	Learning Objectives	Pre-Learning	Methods for presentation of work	Key Ideas for GDS																																																																						
<p>Interpret and present data using bar charts, pictograms and tables</p>	<p>-Read information contained within a block diagram. -Read information contained within a simple tally chart. -Read information contained within a pictogram. -Present a simple table to show information collected (amounts of less than 100). -Present a block diagram to show information collected (amounts of less than 100) -Present a simple tally chart to show information collected (amounts of less than 100) -Present a pictogram to show information collected (amounts of less than 100)</p> <p><u>Vocabulary:</u> Data / information chart,</p>	<p>Use the chart below to record the following information.</p> <table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <thead> <tr> <th colspan="6">Where people went on their holiday last year.</th> </tr> <tr> <th></th> <th>England</th> <th>Wales</th> <th>Spain</th> <th>Italy</th> <th>Greece</th> </tr> </thead> <tbody> <tr><td>6</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1</td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table> <p>6 children went to Spain; 4 went to Greece 5 went to England 4 went to Wales 2 went to Italy</p>	Where people went on their holiday last year.							England	Wales	Spain	Italy	Greece	6						5						4						3						2						1						<p>Children should be able to read and interpret a chart</p> <p>Bar chart</p>  <p>Healthy eating</p> <p>-Which food did the class think was most healthy? -How many children were in the class altogether? -How many more children thought salad was a healthier option than yogurt?</p> <p>Pictogram</p> <p>Eye colour</p> <table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <thead> <tr> <th>Eye colour</th> <th>Number of children</th> </tr> </thead> <tbody> <tr><td>hazel</td><td>👁️👁️👁️</td></tr> <tr><td>green</td><td>👁️👁️</td></tr> <tr><td>brown</td><td>👁️👁️👁️👁️</td></tr> <tr><td>blue</td><td>👁️👁️👁️</td></tr> </tbody> </table> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-top: 10px;"> <p>Key = 4 ice-creams</p> </div> <p>-How many people have brown eyes? -Which eye colour is the most popular? -How many more people have blue eyes than green?</p> <p>Tally chart</p> <p>Favourite ice cream</p> <table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <thead> <tr> <th>Flavor</th> <th>Tally Marks</th> <th>#</th> </tr> </thead> <tbody> <tr><td>chocolate</td><td> </td><td></td></tr> <tr><td>vanilla</td><td> </td><td></td></tr> <tr><td>strawberry</td><td> </td><td></td></tr> </tbody> </table> <p>How many people like chocolate? How many people like vanilla? Which had the most?</p>	Eye colour	Number of children	hazel	👁️👁️👁️	green	👁️👁️	brown	👁️👁️👁️👁️	blue	👁️👁️👁️	Flavor	Tally Marks	#	chocolate			vanilla			strawberry			<p>Pupils may be able to carry out certain procedures and answer questions like the ones outlined but the teacher will need to check that pupils really understand the idea by asking questions such as ‘Why?’, ‘What happens if ...?’, and checking that pupils can use the procedures or skills to solve a variety of problems.</p> <p>Create two separate pictograms to display the following information. The symbol used in each should have a value of more than 1. Which value will you choose for each pictogram?</p> <p>Explain your decision</p>
Where people went on their holiday last year.																																																																										
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bar chart,
frequency table
Carroll diagram,
Venn diagram
axis,
axes
diagram
What happens if...

Which had the least?
How many more people like strawberry than chocolate?

Class	Number of merits awarded	
	Hard work	Good behaviour
YR	42	32
Y1	39	18
Y2	24	27
Y3	30	33
Y4	18	24
Y5	30	24
Y6	39	36

Solve one-step and two-step questions [e.g. 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.

Read information set out in a bar chart or pictogram.
Read information from a bar chart that has a scale or vertical axes.
Present information in a pictogram or bar chart.
Present information on a bar chart where there is a scale on the vertical axes.
Solve problems involving pictograms, bar charts and tables.

Vocabulary:
Data /information
Scale
Axis
Present

Children should be able to read and interpret information from charts such as pictogram, and block

Tally chart

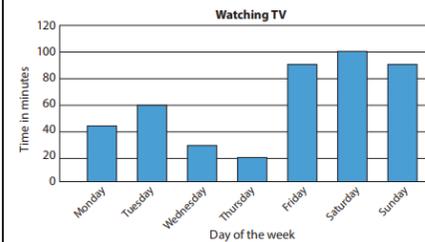
Flavor	Tally Marks	#
chocolate		5
vanilla		4
strawberry		5

Favourite ice cream

How many people like chocolate?
How many people like vanilla?
Which had the most?

Children should be able to solve the following

The graph shows how many minutes Sam spent watching TV at home last week.



- On which day did Sam watch the most TV? How many minutes of TV did Sam watch on Wednesday?
- How many more minutes did Sam watch on Friday than on Tuesday?
- How many fewer minutes did Sam watch on Thursday compared to Sunday?

Pupils may be able to carry out certain procedures and answer questions like the ones outlined but the teacher will need to check that pupils really understand the idea by asking questions such as 'Why?', 'What happens if ...?', and checking that pupils can use the procedures or skills to solve a variety of problems.

Work with two friends to collect data on how many hours each of you watch TV for a week.
Decide how you will combine and present the data using just one graph.

Year 4.

NC Objective	Learning Objectives	Pre-Learning	Methods for presentation of work	Key ideas for GDS																																																										
<p>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs</p>	<p>Read a bar chart accurately with no scales on the axes.</p> <p>Read a bar chart accurately with scales on the axes.</p> <p>Read a time graph accurately with no scales on the axes.</p> <p>Read a time graph accurately with scales on the axes.</p> <p>Vocabulary</p> <p style="padding-left: 20px;">Discrete Continuous Graph Charts survey, questionnaire, data</p>	<p>Children should be able to read and interpret a chart</p> <div style="text-align: center;"> <table border="1" style="margin: 0 auto;"> <tr><td></td><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td><td>12</td><td>14</td></tr> <tr><td>Salad</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>Cereal</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>Fruit</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>Yogurt</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table> <p>Bar chart Healthy eating</p> <p>-Which food did the class think was most healthy? -How many children were in the class altogether? -How many more children thought salad was a healthier option than yogurt?</p> <p>Pictogram Eye colour</p> <table border="1" style="margin: 0 auto;"> <tr><th>Eye colour</th><th>Number of children</th></tr> <tr><td>hazel</td><td></td></tr> <tr><td>green</td><td></td></tr> <tr><td>brown</td><td></td></tr> <tr><td>blue</td><td></td></tr> </table> <p style="text-align: center;">Key = 4 ice-creams</p> <p>-How many people have brown eyes? -Which eye colour is the most popular? -How many more people have blue eyes than green?</p> </div>		2	4	6	8	10	12	14	Salad								Cereal								Fruit								Yogurt								Eye colour	Number of children	hazel		green		brown		blue		<p>The focus is on numerical data. These can be discrete or continuous. Discrete data are counted and have fixed values, for example the number of children who chose red as their favourite colour (this has to be a whole number and cannot be anything in between). Continuous data are measured, for example at what time did each child finish the race? (Theoretically this could be any time: 67.3 seconds, 67.33 seconds or 67.333 seconds, depending on the degree of accuracy that is applied.) Continuous data are best represented with a line graph where every point on the line has a potential value.</p> <p>Discrete data</p> <p>Here is a graph showing how a group of children travel to school.</p> <div style="text-align: center;"> <table border="1" style="margin: 0 auto;"> <tr><td>Car</td><td>5</td></tr> <tr><td>Bus</td><td>4</td></tr> <tr><td>Walk</td><td>6</td></tr> <tr><td>Bike</td><td>2</td></tr> </table> </div> <p>How many children get the bus to school? What is the most/ least popular way to get to school?</p>	Car	5	Bus	4	Walk	6	Bike	2	<p>Pupils may be able to carry out certain procedures and answer questions like the ones outlined, but the teacher will need to check that pupils really understand the idea by asking questions such as 'Why?', 'What happens if ...?', and checking that pupils can use the procedures or skills to solve a variety of problems.</p> <p style="text-align: center;">Make up a story that fits the graph.</p> <div style="text-align: center;"> <p style="font-size: small;">Depth in cms</p> <p style="font-size: small;">(Time in mins)</p> </div>
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Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

Compare data contained in bar charts, pictograms, tables and line graphs.

Answer the following questions

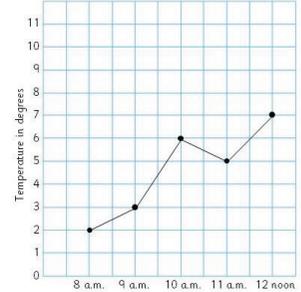
Day	People at park
Mo	 = 3
Tu	 +3
We	+2
Th	
Fr	
Sa	 +3
Su	 +2

How many more people went to the park on Sunday than Monday?

How many fewer went to the park on Wednesday than the day after?

Continuous data

The graph shows the temperature in the playground during the morning of March



The temperature at 9 a.m. is ____ degrees.
 The temperature at 11 a.m. is ____ degrees.
 It was 6 degrees at ____
 The warmest time in the morning is ____
 The coldest time in the morning is ____

Find the sum of two sets of data found in bar charts, pictograms, tables and line graphs.

Find the difference of two sets of data found in bar charts, pictograms, tables and line graphs.

Use the data in the table to answer the questions below.

How many cars were seen altogether?
 Half of the cars were _____.
 7 more cars were ____ than _____. 24 cars were _____ and _____. Three quarters of the cars were _____, _____ and _____.

Here is a table of the average temperature for each month of last year:

Colour	Number of cars
Black	9
Red	10
Silver	7
Blue	14

Write the word 'true', 'false' or 'unknown' next to each statement, giving an explanation for each response.

Month	1	2	3	4	5	6	7	8	9	10	11	12
Average Temp (°C)	6	7	10	12	16	18	21	22	18	14	10	7

- I would need to wear my coat outside in January.
- The hottest day of the year was in August.
- A temperature of -2 was recorded in January.

	<u>Vocabulary</u> Difference Similar	How many people attended in the week if all the people were different? The next week 12 more people went on Saturday. How many went?		Choose two other ways to represent the data.
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Year 5.

<u>NC Objective</u>	<u>Learning Objectives</u>	<u>Pre-Learning</u>	<u>Methods for presentation of work</u>	<u>Key ideas for GDS</u>																																																																																																																														
<p>Complete, read and interpret information in tables, including timetables</p>	<p>Compare information in a table to answer questions. Solve addition problems using the information in tables to answer questions. Solve difference problems using the information in tables to answer questions. Apply my knowledge of time to answer questions about timetables.</p> <p><u>Vocabulary</u> database bar line chart line graph maximum/minimum value outcome</p>	<p>Here is a table with data from a bakery on how many cakes they sold each day.</p> <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <thead> <tr> <th>M</th> <th>T</th> <th>W</th> <th>Th</th> <th>F</th> <th>Sa</th> <th>Su</th> </tr> </thead> <tbody> <tr> <td>34</td> <td>43</td> <td>46</td> <td>55</td> <td>72</td> <td>86</td> <td>76</td> </tr> </tbody> </table> <p>Choose a way to represent this data.</p>	M	T	W	Th	F	Sa	Su	34	43	46	55	72	86	76	<p>Different representations highlight different aspects of data. It is important to be able to answer questions about data using inference and deduction, not just direct retrieval.</p> <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <thead> <tr> <th colspan="7">Bus Timetable</th> </tr> </thead> <tbody> <tr> <td>Highway Rd</td> <td>06:50</td> <td></td> <td>07:25</td> <td>08:45</td> <td>09:10</td> <td>09:45</td> </tr> <tr> <td>Rain Rd</td> <td>07:00</td> <td>07:25</td> <td>07:41</td> <td>08:55</td> <td>09:19</td> <td>09:53</td> </tr> <tr> <td>Coldcot Rd</td> <td>07:11</td> <td>07:41</td> <td>07:51</td> <td>09:04</td> <td>09:28</td> <td>10:02</td> </tr> <tr> <td>Westland Rd</td> <td>07:18</td> <td>07:59</td> <td>07:59</td> <td>09:11</td> <td>09:38</td> <td>10:11</td> </tr> <tr> <td>Bod Rd</td> <td>07:29</td> <td>08:12</td> <td>08:09</td> <td>09:16</td> <td>09:47</td> <td>10:16</td> </tr> <tr> <td>Kingswell Rd</td> <td>07:33</td> <td>08:15</td> <td>08:14</td> <td>09:20</td> <td>09:53</td> <td>10:21</td> </tr> <tr> <td>Long Rd</td> <td>07:45</td> <td>08:30</td> <td>08:30</td> <td></td> <td>10:05</td> <td>10:40</td> </tr> </tbody> </table> <p>Use the bus timetable to answer the following questions: On the 6:50 bus how long does it take to get from Highway Rd to Westland Rd? Can you travel to Long Rd on the 8:45 bus? Which journey between Rain Rd and Kingswell Rd takes the longest time, the bus that leaves Rain Rd at 7:25 or the bus that leaves Rain Rd at 7:41? Explain your reasoning.</p>	Bus Timetable							Highway Rd	06:50		07:25	08:45	09:10	09:45	Rain Rd	07:00	07:25	07:41	08:55	09:19	09:53	Coldcot Rd	07:11	07:41	07:51	09:04	09:28	10:02	Westland Rd	07:18	07:59	07:59	09:11	09:38	10:11	Bod Rd	07:29	08:12	08:09	09:16	09:47	10:16	Kingswell Rd	07:33	08:15	08:14	09:20	09:53	10:21	Long Rd	07:45	08:30	08:30		10:05	10:40	<p>Pupils may be able to carry out certain procedures and answer questions like the ones outlined, but the teacher will need to check that pupils really understand the idea by asking questions such as 'Why?', 'What happens if ...?', and checking that pupils can use the procedures or skills to solve a variety of problems</p> <p>Use the bus timetable to answer the following questions:</p> <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <thead> <tr> <th colspan="7">Bus Timetable</th> </tr> </thead> <tbody> <tr> <td>Highway Rd</td> <td>06:50</td> <td></td> <td>07:25</td> <td>08:45</td> <td>09:10</td> <td>09:45</td> </tr> <tr> <td>Rain Rd</td> <td>07:00</td> <td>07:25</td> <td>07:41</td> <td>08:55</td> <td>09:19</td> <td>09:53</td> </tr> <tr> <td>Coldcot Rd</td> <td>07:11</td> <td>07:41</td> <td>07:51</td> <td>09:04</td> <td>09:28</td> <td>10:02</td> </tr> <tr> <td>Westland Rd</td> <td>07:18</td> <td>07:59</td> <td>07:59</td> <td>09:11</td> <td>09:38</td> <td>10:11</td> </tr> <tr> <td>Bod Rd</td> <td>07:29</td> <td>08:12</td> <td>08:09</td> <td>09:16</td> <td>09:47</td> <td>10:16</td> </tr> <tr> <td>Kingswell Rd</td> <td>07:33</td> <td>08:15</td> <td>08:14</td> <td>09:20</td> <td>09:53</td> <td>10:21</td> </tr> <tr> <td>Long Rd</td> <td>07:45</td> <td>08:30</td> <td>08:30</td> <td></td> <td>10:05</td> <td>10:40</td> </tr> </tbody> </table> <p>If you needed to travel from Coldcot Rd and arrive at Kingswell Rd by 8:20, which would be the best bus to catch?</p> <p>Explain why.</p> <p>Which journey takes the longest time?</p>	Bus Timetable							Highway Rd	06:50		07:25	08:45	09:10	09:45	Rain Rd	07:00	07:25	07:41	08:55	09:19	09:53	Coldcot Rd	07:11	07:41	07:51	09:04	09:28	10:02	Westland Rd	07:18	07:59	07:59	09:11	09:38	10:11	Bod Rd	07:29	08:12	08:09	09:16	09:47	10:16	Kingswell Rd	07:33	08:15	08:14	09:20	09:53	10:21	Long Rd	07:45	08:30	08:30		10:05	10:40
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<p>Solve comparison, sum and difference problems using information presented in a line graph</p>	<p>Compare information on a line graph to answer questions.</p> <p>Solve addition problems using information on line graphs to answer questions.</p>	<p>Class 2 are doing a survey. They ask 20 children this question. "How do you travel to school?"</p> <p>Some results are shown in the pictogram.</p>	<p>Children will interpret then answer the following questions.</p> <p>Use the line graph to answer the following questions:</p>	<p>Use the line graph to answer the following questions: From the graph can you predict the approximate height of an average 10 year old? Explain how. Consider what might be the similarities and differences between this graph and a graph of the average height of teenagers.</p>																																																																																																																														

Solve difference problems using information on line graphs to answer questions.

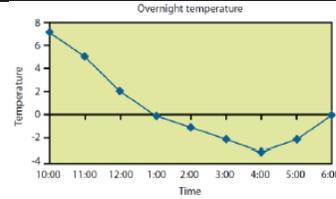
Vocabulary
 Lowest /highest Temperature
 Difference between Average
 Approximate Average height
 Predict
 Data/information
 Similarity /difference

Method of travel	Number of children
Walk	●●●●●●
Car	
Other	

● = 2 children

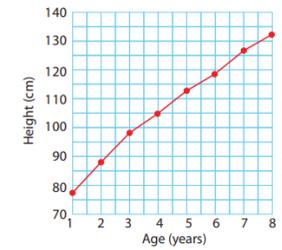
The number of children who travel by car is half the number who walk to school.

Complete the pictogram.

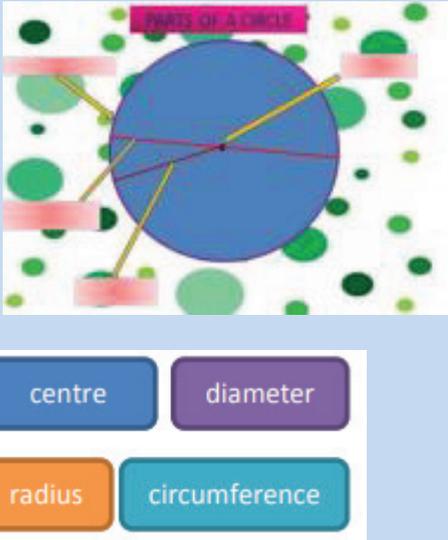
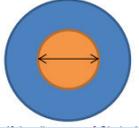


What was the highest/lowest temperature?
 What time did they occur?
 What is the difference between the highest and lowest temperature?
 How long did the temperature stay at freezing point or less?

The growth of children between the ages of 1 and 8



Year 6.

NC Objective	Learning Objectives	Pre-Learning	Methods for presentation of work	Key ideas for GDS
	<p>A lesson circle should be done</p> <p>Name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius</p>	<p align="center"><u>None</u></p>	<p>Label the diagram below using the labels provided.</p> 	<p>Here are 2 circles. Circle A is orange, Circle B is blue. The diameter of Circle A is the diameter of Circle B.</p>  <ol style="list-style-type: none"> 1) If the diameter of Circle A is 6cm, what is the diameter of Circle B? 2) If the diameter of Circle A is 6cm, what is the radius of Circle B? 3) If the diameter of Circle B is 16cm, what is the diameter of Circle A? 4) If the diameter of Circle B is 16cm, what is the radius of Circle A?
<p>Interpret and construct pie charts and line graphs and use these to solve problems</p>	<p>Represent information in a pie chart.</p> <p>Construct a pie chart from a set of given information.</p> <p>Interpret information from a line graph.</p> <p>Construct a line graph from a set of given information.</p>	<p>Look at the previous year groups</p> <p>Children should be understand the previous year groups before completing year 6</p>	<p>Children should be able to answer the following</p> <p>Line graph</p> <p>Look at the following line graph.</p>	<p>Children should be able to use other known facts to help solve different problems</p> <p>Three taxi companies each work out the cost of a journey in different ways. I have taken lots of journeys with each of the</p>

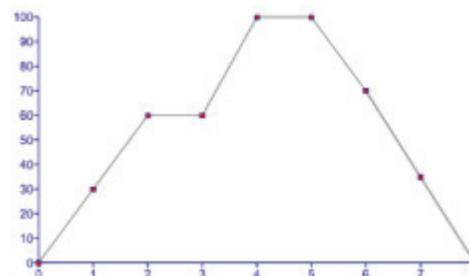
Apply scales on the axes of a line graph.

Construct my own line graph and make decisions about the scales for the axes.

Vocabulary

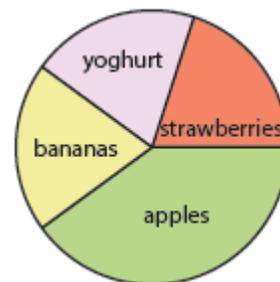
- pie chart
- line graph
- mean (mode, median, range as estimates for this)
- statistics, distribution
- construct
- sector
- axes
- scales

miles from home



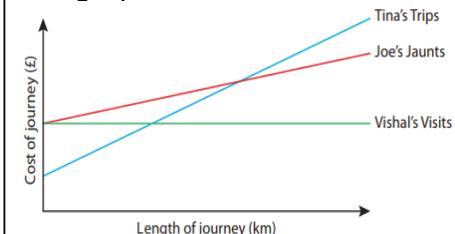
The data did not change from 2-3 hours. Why could this be?

Pie chart



The pie chart represents the proportions of the four ingredients in a smoothie drink.
The sector representing the amount of strawberries takes up 22% of the pie chart.
The sector representing the amount of apple is twice as big as the sector representing the amount of strawberries.

companies, and have recorded each time how long the journey was (in km) and the cost of the journey (in £).
I have represented these data on this graph.



What's the same and what's different about the ways in which the three companies work out the cost of a journey? Which might you choose if you wanted to book a taxi to make a journey? Explain your reasoning.

			<p>The sectors representing the amount of yoghurt and the amount of banana are identical.</p> <p>Estimate the angle of the sector representing the amount of banana.</p> <p>Explain your reasoning.</p>																
<p>Calculate and interpret the mean as an average</p>	<p>Understand that mean means an average.</p> <p>Understand that mean is calculated by adding all the individual scores together and dividing by the number of scores.</p> <p>Check whether an answer is sensible based on an estimate.</p> <p><u>Vocabulary</u></p> <p>Mean Average Calculate Estimate</p>	<p>Previous knowledge of</p> <p>Solving word problems</p> <p>Finding the total of ...</p>	<p>Calculate the mean of these sets of numbers: a) 3, 6, 8, 2, 4, 12 b) 7, 13, 16, 9, 8</p> <p>Four children have taken two tests, one English and one Maths.</p> <table border="1"> <thead> <tr> <th>NAME</th> <th>MATHS</th> <th>ENGLISH</th> </tr> </thead> <tbody> <tr> <td>Ali</td> <td>67</td> <td>59</td> </tr> <tr> <td>Sid</td> <td>53</td> <td>61</td> </tr> <tr> <td>Pam</td> <td>66</td> <td>57</td> </tr> <tr> <td>John</td> <td>72</td> <td>75</td> </tr> </tbody> </table> <p>Calculate the mean: a) Maths score b) English score c) score overall d) score for each child over both tests</p>	NAME	MATHS	ENGLISH	Ali	67	59	Sid	53	61	Pam	66	57	John	72	75	<p>Three teams are taking part in the heats of a 4 × 100 m relay race competition on Sports Day.</p> <p>If the mean average time of the four runners in a team is less than 30 seconds, the team will be selected for the finals.</p> <p>At the start of the last leg of the relay race, the times (in seconds) of each teams' first three runners are: Team Peacock: 27, 29, 31 Team Farah: 45, 43, 37 Team Ennis: 29, 30, 25</p> <p>Which of the teams have the best chance of being selected?</p> <p>Explain your reasoning.</p>
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