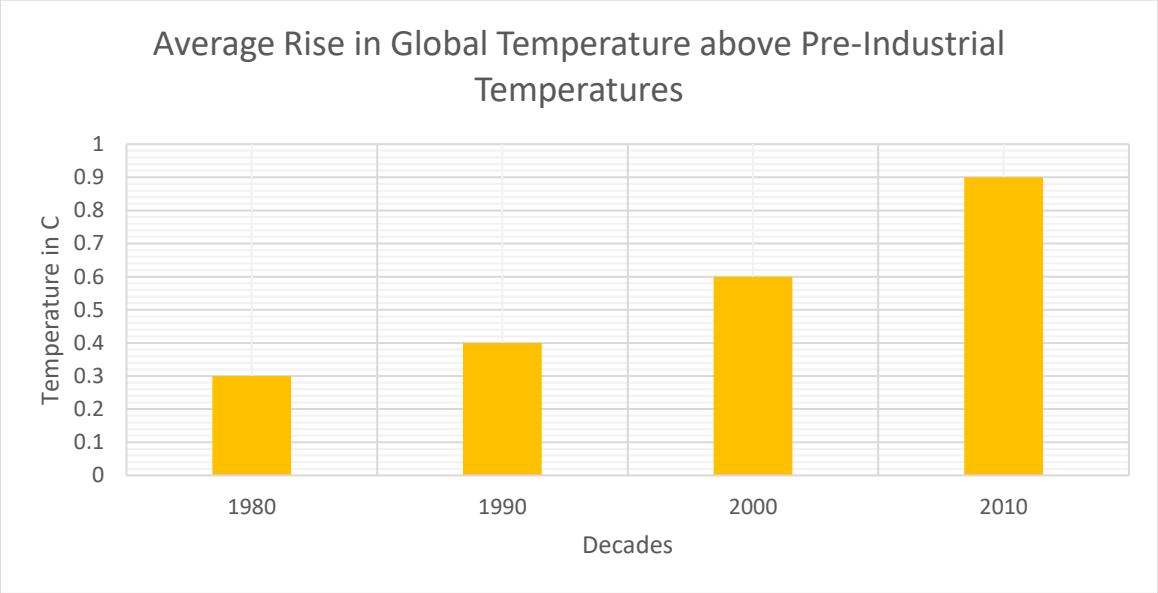
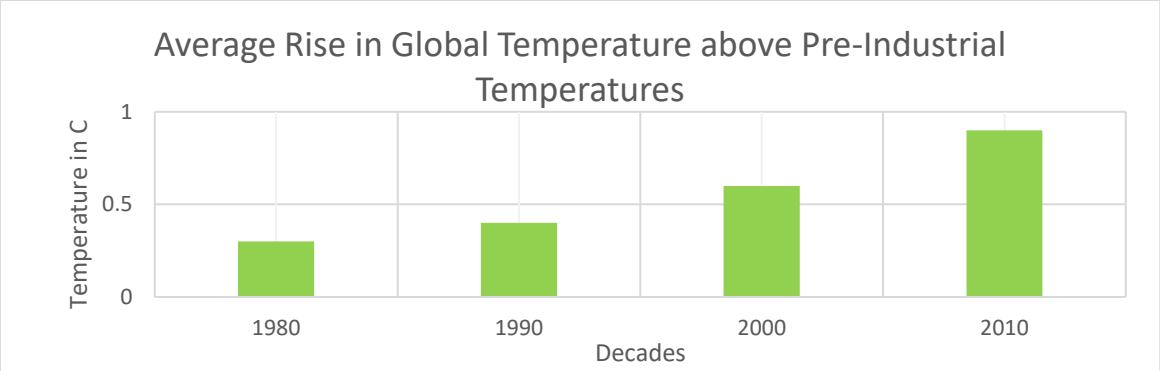
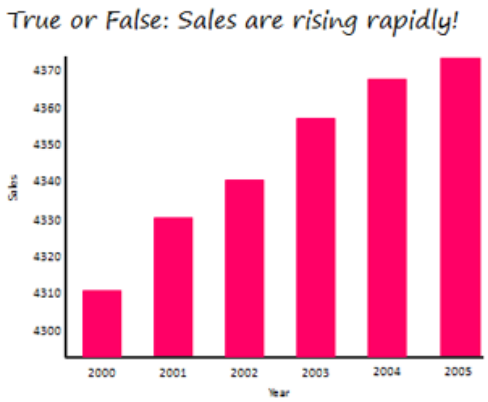
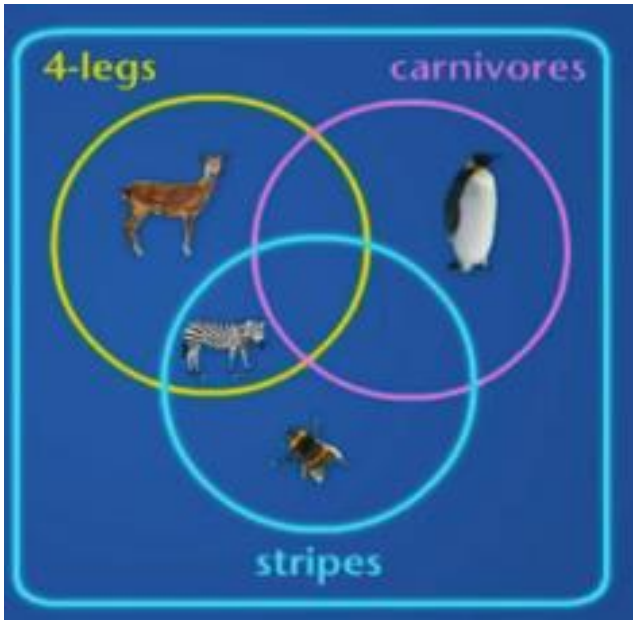
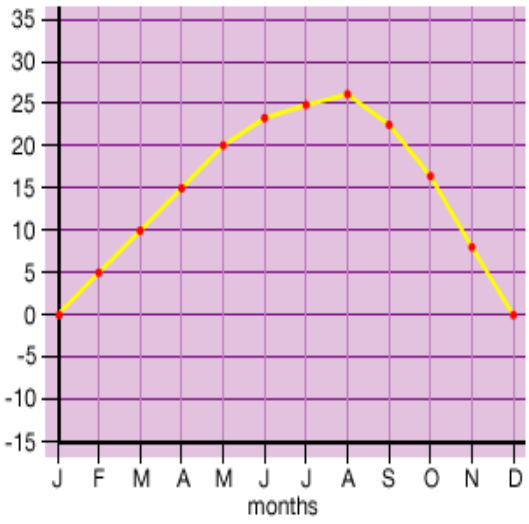
Phase 7 Data and Analysis Assessment

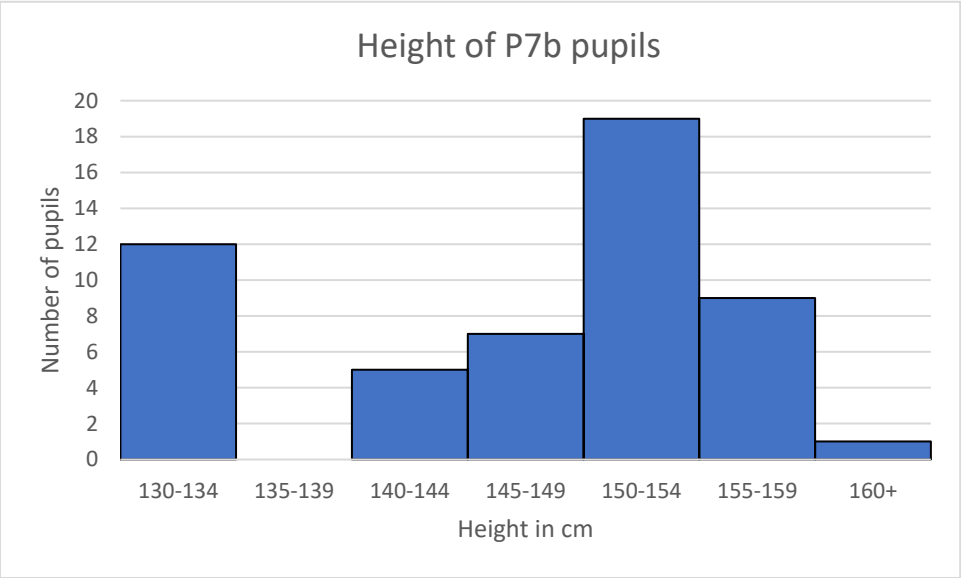
Phase 7 Progression Overview	Assessment Note	Marks
I can create simple spreadsheets	Observed in classwork	**n/a**
I can explore the difference in appearances of graphs by changing the scale	Question 1	**5**
I can use fractions and percentage to summarise data (e.g. half the children had a cats)	Question 2	**9**
I can explore misleading statistics in real life	Question 3	**2**
I can select the most suitable way of collecting data for a given task	Question 4	**2**
I can create, interpret and report on information provided in tables and bar graphs where the data might be grouped into simple intervals	Question 5- create element from classwork	**3**
Interpret and report and information provided in complex Venn diagrams that have more than one circle	Question 6	**3**
I can interpret and report on information in line graphs describing the trends seen in data	Question 7	**1**
I can comment sensible on how well my own collected data answers the original question	Observed in classwork	**n/a**
I can interpret histograms for grouped data including where the data on the axis must be read between the scale numbers	Question 8	**4**
I can interpret pictograms where one unit represents a different data value (e.g. one pear = 5 people)	Question 9	**4**
	TOTAL MARKS	**/33**

	Question	Mark
1	**I can explore the difference in appearances of graphs by changing the scale** Here is the same climate-change data shown on two bar charts. The data shows the average global temperature increase (in °C) above pre-industrial levels for four different decades. **Data (average global temperature rise above pre-industrial levels)** • 1980s: 0.3°C • 1990s: 0.4°C • 2000s: 0.6°C • 2010s: 0.9°C   a.) Describe how the two graphs look different even though the numbers are the same. b.) Explain how the scale changes the appearance of the bars. c.) Which graph makes the temperature rise look more dramatic? Why?	

	d.) Which graph makes the changes look smaller? Why? e.) Why is it important to choose an appropriate scale when showing climate-change data?	5
2	**I can use fractions and percentage to summarise data (e.g. half the children had a cats)** A wildlife group surveyed 20 visitors at Edinburgh Zoo and asked them which animal was their favourite. The results are shown below. • 8 people chose penguins • 5 people chose lions • 4 people chose meerkats • 3 people chose giraffes a.) Write a fraction of visitors who chose each animal. b.) Convert each fraction into a percentage c.) Write one or two sentences summarising the results	9
3	**I can explore misleading statistics in real life** The graph below shows sales in a shoe shop year on year  a.) Is the statement that 'Sales are rising rapidly', true or false? b.) Explain your answer?	2

4	**I can select the most suitable way of collecting data for a given task** Your class wants to find out: *How do people in your community usually travel to school or work?* You can choose from these ways of collecting data: • Survey (ask people directly) • Observation (watch and record how people travel) • Online research (look up existing information) Which method would be the most suitable for this task? Explain why it is better than the other options.	2
5	**I can create, interpret and report on information provided in tables and bar graphs where the data might be grouped into simple intervals** A local sports club recorded how long its members spent exercising each week. The results were grouped into intervals, shown in the table below. **Weekly exercise time (minutes)** **Interval (minutes)** | **Number of members** 0–30 | 6 31–60 | 12 61–90 | 9 91–120 | 5 120+ | 3 a.) Which interval has the **highest** number of members. b.) Which interval has the **lowest** number of members. c.) **Write a short summary** (4–6 sentences) explaining what the data shows.	3

6	**Interpret and report and information provided in complex Venn diagrams that have more than one circle** Look at the Venn diagram  a.) Can you think of an animal that could go in the central section? (is all three categories) b.) Explain what the overlaps show. c.) Where would you classify these animals: bat, lion, clown fish	3
7	**I can interpret and report on information in line graphs describing the trends seen in data**  The line graph below shows the average temperature in Wales in 2011. a.) Describe the trend shown in the line graph.	1

8	**I can interpret histograms for grouped data including where the data on the axis must be read between the scale numbers** **This graph shows the heights of pupils in a class**  a.) Which height interval has the greatest number of pupils? b.) Which interval has the fewest pupils? c.) What is does each line represent on the y axis d.) Write a short summary (3–4 sentences) explaining what the histogram shows about the height of P7b pupils.	4
9	**I can interpret pictograms where one unit represents a different data value (e.g. one pear = 5 people)** The pictogram shows the number of pupils who chose different fruits for snack time. Use the key to help you answer the questions. **Key:** = 5 pupils Fruit / Number of pupils Apple: 3 pears Bananas: 2 pears Grapes: 4 pears Oranges: 1 pear	

	a.) How many pupils chose each fruit? b.) Which fruit was the most popular? c.) Which fruit was the least popular? d.) How many more pupils chose grapes than bananas?	4