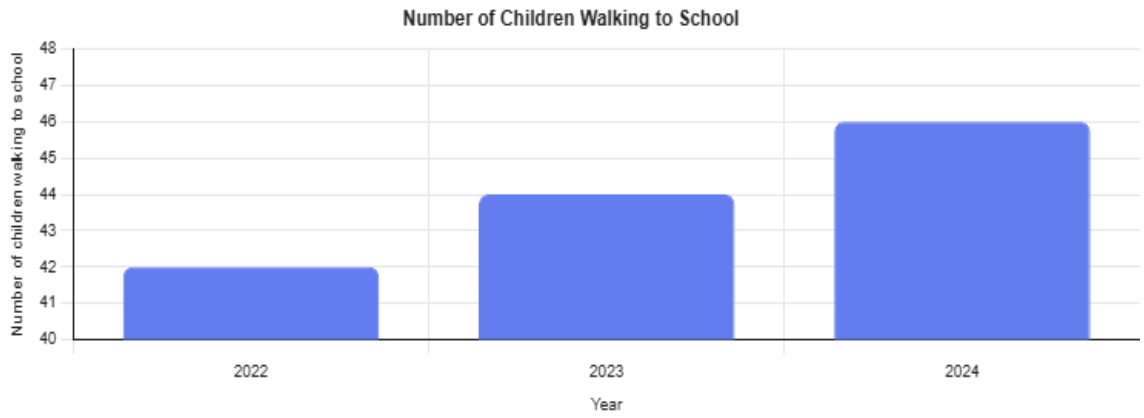
Phase 6 Data and Analysis Assessment

Phase 6 Progression Overview	Assessment Note	Marks
I can ensure that data is displayed in a way that is can be easily interpreted by others (including bar graphs, line graph, pie chart, diagrams)	Observed in classwork	**n/a**
I can explore the different ways in which data can be collected	Observed in classwork	**n/a**
I can enter data into databases with predefined fields	Observed in classwork	**n/a**
I can enter data into a prepopulated spreadsheet	Observed in classwork	**n/a**
I can interpret and report on information provided in simple tree diagrams	Question 1	**5**
I can comment sensibly on how well questions were answered by the data collected and suggest how it could be improved	Question 2	**3**
I can explore the effect of incorrect use of scale (misleading scale)	Question 3	**2**
I can explore the effect of poor sampling (e.g. only asking a specific group of people questions)	Observed in classwork	**n/a**
I can display measurements in tables with class intervals (e.g. pupil heights)	Question 4	**5**
	TOTAL MARKS	**/15**

	Question	Mark
1	**I can interpret and report on information provided in simple tree diagrams** The tree diagram shows the choices P6 pupils made for their school lunch. Lunch Choice / \ Hot Meal Packed Lunch / \ / \ Pasta Soup Sandwich Salad (12) (8) (10) (5) a.) How many pupils chose a hot meal? b.) How many pupils brought a packed lunch? c.) Which option was the most popular? d.) Which option was the least popular? e.) Write a summary to describe what the flow chart shows.	5
2	**I can comment sensibly on how well questions were answered by the data collected and suggest how it could be improved** A P6 class wanted to find out: *What is the most popular after-school activity?* They asked pupils to choose from four options: football, dance, gaming, or reading. Here are the results they collected: Activity | Number of pupils Football | 14 Dance | 6 Gaming | 12 Reading | 3	

	a.) Does the data collected answer the question: 'What is the most popular after-school activity?' Explain your answer. b.) Are there any problems with the way the data was collected? c.) Suggest one or two ways the data collection could be improved next time.	3
3	**I can explore misleading statistics in real life** A news poster at school says: **"More children are walking to school than ever before!"** The poster shows a bar graph to support this claim.  a.) What do you notice about the y-axis on this graph? b.) Do you think the statement about more children that ever are walking to school is true?	2

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I can display measurements in tables with class intervals (e.g. pupil heights)

A teacher measured the heights of 24 pupils in a Primary 6 class.

The heights (in centimetres) are shown below:
128, 131, 134, 135, 137, 138, 140, 141,
142, 143, 145, 146, 147, 148, 150, 151,
152, 153, 155, 156, 158, 159, 160, 162

a.) Complete the frequency table below by sorting the heights into the class intervals. (2 marks)

Height (cm)	**Tally**	**Frequency**
125–129		
130–134		
135–139		
140–144		
145–149		
150–154		
155–159		
160–164		

b.) Which height interval contains the **most pupils**? (1 mark)

c) Why is it helpful to group the heights into **class intervals** instead of listing every height? (2 marks)

5