Windmill L.E.A.D. Academy
A L.E.A.D. Academy

Statistics with Reasoning

VOCABULARY					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Count, sort, vote	Count, tally, sort Vote Graph, block graph, pictogram, Represent Group, set, list, table Label, title Most popular, most common, least popular, least common	Chart, bar chart, frequency table, Carroll diagram, Venn diagram Axis, axes Diagram	Continuous data Time graph Survey, questionnaire, data	Database Line graph Maximum/minimum value Scale	Mean (mode, median, range) Pie chart Construct Distribution
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
INTERPRETING, CONSTRUCTING AND PRESENTING DATA					
	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				
	True or false? (Looking at a simple pictogram)	**True or false?** (Looking at a bar chart) “Twice as	**True or false?** (Looking at a graph showing how the	**True or false?** (Looking at a train time table) “If I	**True or false?**

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	"More people travel to work in a car than on a bicycle". **Is this true or false? Convince me.** Make up you own 'true/false' statement about the pictogram **What's the same, what's different?** Pupils identify similarities and differences between different representations and explain them to each other	many people like strawberry than lime". **Is this true or false? Convince me.** Make up your own 'true/false' statement about the bar chart. **What's the same, what's different?** Pupils identify similarities and differences between different representations and explain them to each other	class sunflower is growing over time) "Our sunflower grew the fastest in July". **Is this true or false? Convince me.** Make up your own 'true/false' statement about the graph. **What's the same, what's different?** Pupils identify similarities and differences between different representations and explain them to each other	want to get to Exeter by 4 o'clock this afternoon, I will need to get to Taunton station before midday". **Is this true or false? Convince me.** Make up your own 'true/false' statement about a journey using the timetable. **What's the same, what's different?** Pupils identify similarities and differences between different representations and explain them to each other	(Looking at a pie chart) "More than twice the number of people say their favourite type of T.V. programme is soaps than any other" **Is this true or false? Convince me.** Make up your own 'true/false' statement about the pie chart. **What's the same, what's different?** Pupils identify similarities and differences between different representations and explain them to each other
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

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	Create a questions Pupils ask (and answer) questions about different statistical representations using key vocabulary relevant to the objectives.	**Create a questions** Pupils ask (and answer) questions about different statistical representations using key vocabulary relevant to the objectives. (see above)	**Create a questions** Pupils ask (and answer) questions about different statistical representations using key vocabulary relevant to the objectives. (see above)	**Create a questions** Pupils ask (and answer) questions about different statistical representations using key vocabulary relevant to the objectives. (see above)	**Create a questions** Make up a set of five numbers with a mean of 2.7 **Missing information** The mean score in six test papers in a spelling test of 20 questions is 15.Five of the scores were 13 12 17 18 16 What was the missing score?