Topic 6: Interpreting data	**Year Group: 10**	**Subject: Maths**	**Term: Autumn I**
	Shared resources: Shared Drive - links in lesson suggestions		

Rationale and Context for Unit	**Specific Core Knowledge and skills**
1. Why is this Unit taught at ASHS (how does it link with your intent i.e. John 10:10)? 2. **Prior learning** - from past years topic coverage (including KS2) - outlined in scheme of work and in the same topic from prior years. 3. What future learning does it underpin? 4. Progressive sequencing to build upon students prior learning in this topic - following progressive scheme of work. We are exposed to vast amounts of data on a daily basis from "averages" quoted in the media, to online surveys that we join in with, from political opinion polls to government economic and social statistics. To live life to the fullest, students should be able to process this information, understand a range of charts and graphs, and to draw conclusions. Statistics increasingly play a large part in the study of social sciences and we believe that students' learning in mathematics should be able to be applied in other subjects. **In this topic students will learn:** ☐ How to put data into graphs and charts to make it easier to look at and understand. ☐ How to use the information from the graph to make decisions or answer specific questions.	1. Keywords: 2. Concepts: 3. Skills: 4. Future application: Progress in this topic: ● draw a pictogram. Find the mode of a set of data. ● find the mean, median, mode and range of a set of data and use it to find the solution to a dilemma. ● compare the mean median and mode of two sets of data. Interpret pie charts. ● draw charts and graphs to represent continuous data. ● work through the entire data handling cycle with a personal hypothesis, writing a full report in conclusion.

Challenge and Support	**Common misconceptions**
1. How and <u>where</u> will students be stretched in this scheme? 2. How is this scheme ambitious at all levels? All students can progress on to the next level in the progressive scheme of work c.f.: (https://docs.google.com/spreadsheets/d/1tmypw1QkumJKQdGl8_p0uCeO944eWtJDquR-B4xPb2o/) 3. What further support may students or groups of students require to	1. What are the common misconceptions in this Unit of work? 2. How will these be addressed? Example https://drive.google.com/open?id=0B5M1OPrNcovKOXdsSFhCeXVXWlk

access the learning within this scheme? SEND/PP	
Assessment and Homework	**Careers, Information, Advice, and Guidance**
Summative: End of topic test. Penultimate lesson of unit, followed by review of assessment and elevator feedback lesson.	Weekly homework set using '5 a day' maths questions from range of prior topics. Reviewed each week in class. Review of prior knowledge in lessons as starter activities. Extended learning task	TBC
Co-curricular links	**Opportunities for Spiritual, Moral, Social and Cultural Development**
Science - Using statistics – mean, median, mode, range etc PSHE - Health topics using statistics, graphs and charts History - Using statistics – mean, mode, median and range	This topic encourages students to work together and to look at the world around them in a new light. Students are required to explore social situations and discuss the correlation of these events in relation to other contexts for example the more Big Macs you eat the higher your cholesterol is likely to be. This topic also encourages students to question the statistics they see in the media and think carefully about which audience they are trying to impress.

Lesson	Key question	Learning objectives	Activities to support Core Knowledge Where in this scheme is a good opportunity to link to John 10:10 directly in the lesson?	Vocabulary/ Terminology	Formative Assessment & Review
1				average bar chart bar-line graph class interval data, grouped data data collection sheet database experiment frequency frequency chart frequency diagram interpret interval label mean median mode, modal class/group pie chart questionnaire range represent statistic, statistics survey table tally title	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12	Assessment				
13	Review window				