



Subject	Year	Term
STEM	7	3
Topic		
Self-Driving Cars Project		
Content (Intent)		
Prior Learning (Topic) Mars Lander Project		
- STEM first two terms experience In KS2 students have learned: - about the wider world in general. - to interpret and present data using bar charts and tables. - to interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. - to develop creative skills through modelling. - basic scientific formulas and facts.		
Future Learning (Topic) Sustainable Housing Project (Year 8)		
What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)	
Students will learn about the reasons for car accidents and be able to conclude that the majority are caused by human error. They will analyse data, construct graphs to support their findings and compare raw figures to proportional figures. Students will discover potential solutions to reduce the amount of human error such as self-driving vehicles. They will learn about the features these vehicles must have so that they are safe. Students will be presented with a range of scenarios and will discuss how their vehicle would respond. This leads discussions about ethical issues such as whose safety the vehicles prioritise. Students will plan and design a new futuristic road where only self-driving vehicles can drive. They will compare and evaluate their ideas using topic specific language.	Graph work completed in class will be assessed through a mixture of self-assessment against success criteria, peer-assessment and teacher feedback. There are many built-in opportunities for graph work to be assessed throughout the STEM curriculum. Students will ultimately present their findings, and the teacher will give valuable feedback to students to prepare them for this.	
How can parents help at home?		
Students will be given homework tasks to produce based on specific STEM subjects and whole topic. Provide students with resources to allow them to research STEM careers and opportunities. Provide resources for modelling at home.		
Helpful further reading/discussion (including Reading and Vocabulary Lists)		
Reading Research on vehicle collisions on www.gov.uk Self-Driving Cars videos on YouTube Ethical issues of autonomous vehicles on YouTube	Vocabulary Lists Autonomous Sensor Environmental Ethical	Radar Malfunction Proportion