



Subject	Year	Term
STEM	7	1
Topic		
Aerospace Challenge		
Content (Intent)		
Prior Learning (Topic) Introduction to STEM and Graph Skills		
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) Mars Lander Challenge		
What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)	
Students will learn about the requirements for valid and fair testing and put them into practice. They will construct several designs of paper airplanes by following a systematic set of instructions and will record and analyse results thoroughly. Students will decide the most appropriate ways to display their results after calculating averages and identifying anomalies. Students will then investigate further factors that may have affected their results, such as wing area. Students will have the opportunity to apply the skills learned in this topic to a wide range of problems across the four STEM subjects.	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 STEM Opportunities in Aviation and Aerospace on stem.caa.co.uk Scales, Coordinates and Graphs on BBC Bitesize or Corbettmaths Science and Maths Textbooks in School Library	Vocabulary Lists Aviation Accuracy Mean Anomalies Conclusion	Correlation Valid