



MAGHULL HIGH SCHOOL – CURRICULUM MAP

Unit: Introduction to Science	<ol style="list-style-type: none"> 1. Lab Rules 2. Science Careers 3. Apparatus 4. Measuring 5. Hazards 6. Bunsen burners 	<ol style="list-style-type: none"> 7. Flame tests 8. Variables 9. Writing methods 10. Brief History of Science (Reading) 11. Microscopes 12. Tables of results 	<ol style="list-style-type: none"> 13. Bar charts 14. Line graphs 15. Insulation practical 16. Conclusions 17. Evaluations 18. Maths in Science
LESSON TOPIC QUESTION(S)			
Knowledge & Skills Development	<ul style="list-style-type: none"> • Recall the lab rules • Identify all lab apparatus and uses • Correctly use a variety of measuring equipment • Identify and describe the hazard symbols used within science • Light a Bunsen burner safely • Investigate the different colours produced by metals in a flame • Recall the three variables and apply them to numerous practical investigations 	<ul style="list-style-type: none"> • Write detailed methods • Investigate stopping distance at various speeds • Draw accurate tables and graphs for data collection • Investigate why penguins huddle • Investigate the best materials for insulation • Write detailed conclusions and evaluations • Calculate means and use significant figures correctly 	
Assessment / Feedback Opportunities	<p>Formative Assessment</p> <p>Teacher questioning</p> <p>Quizzes</p> <p>Mid topic assessment</p>	<p>Summative assessment</p> <p>End of topic assessment</p>	
Key Vocabulary	<p>Independent Variable, Dependent Variable, Control Variables, Method, Conclusion, Precaution, Evaluation, Reliable, Precision, Valid, Anomaly, Significant Figures, Insulation, Friction, Huddling, Thermal, Roaring, Safety, Beaker, Conical, Measuring, Cylinder, Flammable, Hazardous, Corrosive</p>		
Literacy/Reading Opportunities	<p>Dedicated Reading Lesson: Brief History of Science</p> <p>Subject specific vocabulary introduced before reading of related texts</p> <p>Word etymology from Latin and Greek roots</p> <p>Reading of simple and complex sentences, paragraphs, articles</p> <p>Scientific writing including structuring methods, comparisons and evaluations</p>		
Cross Curricular Themes	<p>Numeracy/Maths – averages (means), reading scales, graph plotting, lines of best fit, using and rearranging equations, using scientific calculators, significant figures</p>		

Personal Development (Including British Values, RSE, Citizenship)	None
Career Opportunities	Dedicated careers lesson at start of topic Laboratory Technicians, Investigative Scientist, Lecturer, Chemical Factory Worker, Highway Agency, Environmental Scientist, Zoologist