ancora house school

'Building Resilience for Future Success'

AQA Synergy Physics KS3 Curriculum Map

KS3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics covered	**Forces** Contact and Non-Contact Forces. Measurement of Force. Friction Investigation Gravity, Mass and Weight. Speed and Acceleration Pressure AQA Unit: Types of Force 115826 (Extension of a spring practical and/or acceleration practical may be included to provide additional working scientifically experience)	**Electricity** Potential Difference, Resistance and Current Measurement of current and voltage. Effect of resistance and voltage on current AQA Unit: Electricity 116090 **(**Resistance of a wire and resistors in series vs parallel practicals may be included to provide additional working scientifically experience)	**Magnetism** Magnetic Materials and Magnetic Fields. Bar Magnet Investigation – "Finding the Field" Electromagnets and their uses. Making an electromagnet. AQA Unit: Magnets and Electromagnets 116093	**Energy** Energy Stores and Transfers. Wasted Energy Heating and Cooling Energy Resources AQA Unit: Energy Transfers 115824 AQA Unit: Energy Resources 115825	**Waves** Longitudinal Waves - Sound Transverse Waves - Light Wave Properties and Applications AQA Unit: Waves 119028 (Waves in a string practical may be included to provide additional working scientifically experience)	**KS3 Revision/Recap to be KS4 ready**
Application	Skills Development (following AQA KS3): Analysing (analysing patterns, discussing limitations, drawing conclusions, presenting data) Communicating (communicating ideas, constructing explanations, critiquing claims, justifying opinions)					

	Enquiring (collecting data, devising questions, planning variables, testing hypotheses) Solving (estimating risks, examining consequences, reviewing theories, interrogating sources)					
Prior Knowledge	Know that unsupported objects fall due to the force of gravity. Know that motion can slow down or stop due to resistive forces.	Know some common conductors and insulators. Know how to build a simple series circuit and relate an open switch to a break in the circuit.	Know that magnets have 2 poles and that magnets can both attract and repel.	Know the changes of state that can occur when water is heated or cooled.	Know that sound can be produced when something vibrates. Know that sound can travel and gets fainter further way from the source. Know that light travels in straight lines. Recall observations of shadows and reflections. Know that light travels from light sources to our eyes or from light sources to objects then to our eyes in order for us to see things.	
Assessment	Formative assessment during lessons where appropriate using classwork completed, past exam question, worksheets and verbal responses etc.	Formative assessment during lessons where appropriate using classwork completed, past exam question, worksheets and verbal responses etc.	Formative assessment during lessons where appropriate using classwork completed, past exam question, worksheets and verbal responses etc.	Formative assessment during lessons where appropriate using classwork completed, past exam question, worksheets and verbal responses etc.	Formative assessment during lessons where appropriate using classwork completed, past exam question, worksheets and verbal responses etc.	Formative assessment during lessons where appropriate using classwork completed, past exam question, worksheets and verbal responses etc.

Skills Builder and Preparation for Adulthood	Hypothesis & Theories – Problem Solving (step13) Communication (step 12-14) Hazards & Risks – Self management (step 14-15) Designing Investigations - Problem Solving (step14-15) Creativity (step 13) Measuring - Problem Solving (step10)	Collecting Data - Problem Solving (step14) Processing Data - Problem Solving (step10) Presenting Data – Communication (step 15) Problem Solving (step 9 & 10) Conclusions - Problem Solving (step15)