




AQA Topic	Old Style Name	KS2 Starting Point	KS2 and KS3 Key Questions	KS3 Topic Summary	ILNESS sheet
<b>Electromagnets 2</b>	Electromagnets/ Magnetism	Students will know of magnetism and are likely to identify it as a non-contact force related to some iron/steel objects. It is unlikely students will have encountered electromagnets, but will have knowledge of poles, attraction and repulsion using bar magnets.		Students will learn about magnetism, including the basics of bar magnets, fields and attractive/repulsive forces. Electromagnets will be investigated including details of how to make them stronger, these will be tested and applications of the concept researched and explained.	
<b>Energy 2</b>	Work / Heating and Cooling	Students may have encountered heat as a form of energy at KS2 but are unlikely to have discussed different ways heat energy can be transferred. Equally they are unlikely to have covered work done as a concept before KS3.		Students will understand the heat energy transfer processes of conduction, convection and radiation, applying them correctly to solid, liquid and gas models. Students will use this as an opportunity to gather data and develop their practical skills looking at real examples of each.	
<b>Ecosystems 2</b>	Respiration / Photosynthesis	Students will have encountered details of the respiratory and circulatory system at KS2 but are unlikely to have linked the importance of these mechanisms together. Students will also have some knowledge of plant adaptations but won't have linked them to photosynthesis.		Students will investigate the metabolic processes that take place in living organisms. Students will understand the difference between aerobic and anaerobic respiration and how we process the energy from food. Students will also develop an appreciation for the importance of plants and photosynthesis and learn of the adaptations that allow plants to thrive in certain conditions.	
<b>Earth 2</b>	Climate / Earth Resources	Students may have some basic awareness of environmental issues such as global warming, the Greenhouse effect or deforestation. They may also be able to relate the effects of taking resources from the ground with some of the drawbacks and positives of this human activity.		Students look at the composition of the Earth's atmosphere, and how this has changed over the last 4 billion years and the last 200 years, in part through the carbon cycle. Students will also examine how materials are extracted from the Earth and use all this knowledge to the environmental consequences.	