

Curriculum Overview: Year 9 KS3 and GCSE Trilogy Science

Autumn 1	Autumn 2	Spring 1 (GCSE Starts)	Spring 2	Summer 1	Summer 2
Topic covered → Reactions 2, Waves 2, Electromagnets 2	Topic covered → KS3 revision of all content for the key stage	Topic covered → Biology → Cells	Topic covered → Chemistry → Atomic Structure	Topic covered → Physics → Energy Biology → Human Organisation	Topic covered → Biology → Plant organisation
Links to prior learning Reactions 2: Content of the Reaction 2 and bond forming and energy changes in a chemical reaction are not specified in the KS2 NC Waves 2: Content of the Waves 2 about the properties of longitudinal and transverse waves are not specified in the KS2 NC Stretch and Challenge Enquiry Identify some examples of exothermic and endothermic examples you'd find in the laboratory and draw energy diagrams to show the energy conversions. Research how a radio works to pick up the	Links to prior learning All topics for the key stage are reviewed before an end of Key Stage assessment on: <ul style="list-style-type: none"> • Biology • Chemistry • Physics • Science Skills 	Links to prior learning - Animal and plant cells. - Specialised cells and adaptations. - using microscopes. Stretch and Challenge Enquiry Is it right to use STEM cells to treat cancer?	Links to prior learning - Elements, compounds mixtures. - Periodic table and trends in reactivity. Stretch and Challenge Enquiry Why do Science models change over time?	Links to prior learning - Renewable and non- renewable energy sources. - Digestive and circulatory systems. Stretch and Challenge Enquiry Why is it better for the environment to charge your phone in Iceland than anywhere else in the world?	Links to prior learning - Plant cells - photosynthesis - What a plant needs to make it healthy. Stretch and Challenge Enquiry Why are plants to important to the environment and in preventing Global warming?

different frequencies released by the different radio stations.

Electromagnets 2:

- compare how things move on different surfaces
- notice that some forces need contact between two objects, but magnetic forces can act at a distance
- observe how magnets attract or repel each other and attract some materials and not others
- compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
- describe magnets as having two poles predict whether two magnets will attract or repel each other, depending on which poles are facing.

Stretch and Challenge Enquiry

Explain how electromagnets are used in: the school bell, car crushing machines, and the Magdelev trains

Equipment Needed	Wider Reading	Family activities
Pen, pencil, ruler, calculator	Key stage 3 Bitesize: https://www.bbc.co.uk/bitesize/subjects/zng4d2p GCSE bitesize: https://www.bbc.co.uk/bitesize/subjects/zrkw2hv Kay Science → https://www.kayscience.com/ SENECA → https://app.senecalearning.com/dashboard/courses/add?Price=Free Science Journals for Kids → https://www.sciencejournalforkids.org/	Watch the news. Beat the Parent – make flashcards and compete with your child. Who can get the most correct answers? Support your child using educake for home learning.