









Curriculum Overview for Science

Year 8

<p>Half Term 1: The Science of Us</p> <p>Substantive Knowledge: Hierarchy of organisation (cells, tissues, organs, organ systems) Adaptions to specialised cells. Arrangement of the periodic table and brief history Basic structure of atoms (size, nucleus, electrons, protons, neutrons). Structure and function of the respiratory, circulatory, skeleton, digestive and muscular systems. How the muscular system utilises moments. Describe the physical and hormonal stages of puberty and difference between puberty and adolescence, including the role of hormones Describe the process of fertilisation. Pregnancy and birth Explain how drugs, alcohol, smoking and healthy/unhealthy living choices impact pregnancy.</p> <p>Disciplinary Knowledge: Use a variety of resources to summarise notes Ask questions and develop a line of enquiry based on observations of the real world. Make and record observations Interpret data, linking in scientific concepts</p>		Article homework – reading for meaning, Model reading and highlighting to pick out key details, reading of data, Skim reading
		Cell, tissue, organ, organ system, Specialised, differentiation Specialised, differentiation, Group, period, metal, non-metal Proton, electron, neutron, Breathing (exhale, inhale?), alveoli, Digestion, enzymes, absorption, Heart, vein, artery, capillaries, Bone, skeleton, Muscle, tendon, ligament, cartilage, Muscle, moment, pivot Neuron, reflex, response, Reproduction, Sperm, ovum, fertilisation, Variation, evolution, adaptation, Puberty, adolescence, hormones, Oestrogen, progesterone, LH, FSH. Pregnancy, placenta, foetus,
		Recall test x 2 Written assessment focussed on describing and comparing body systems
		Article Homework to promote reading like a scientist Revision for recall tests
<p>Half Term 2: The Science of Us</p> <p>Substantive Knowledge: Features of light and sound waves How light can be affected by density and coloured filters Describe how we can hear, using the structure of the ear and how we can damage out hearing. Structure of the eye and how we see. Describe the role of different lenses and how they work.</p> <p>Disciplinary Knowledge: Use a variety of resources to summarise notes. Ask questions and develop a line of enquiry based on observations of the real world. Make and record observations in practical situations. Use calculations to inform knowledge. Analyse impact of processes and inventions.</p>		Article homework – reading for meaning, Model reading and highlighting to pick out key details, reading of data, Skim reading
		Amplitude, wavelength, transverse, Longitudinal, sound, particles, Ear, hearing, frequency, Vacuum, Refraction, density, speed, Filter, colour, wavelength, Retina, myopia, hyperopia
		Recall test x1 Written assessment to analyse different circuits and calculate values End of term assessment
		Article Homework to promote reading like a scientist Revision for recall tests Revision for end of term assessment