Denton Community College 2019/20

Departmental Curriculum Map

Subject: Science Year Group: 9

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics	1. Cell Biology 2. Structure & Bonding 3. Energy	1. Organisation 2. Quantitative Chemistry 3. Electricity	1. Infection & Response 2. Bioenergetics 3. Chemical & Energy Changes 4. Particle Model	1. Homeostasis 2. Rates of Reaction 3. Atomic Structure	1. Inheritance 2. Organic Chemistry 3. Forces 4. Ecology	1. Chemistry of the Atmosphere 2. Waves 3. Magnetism
What will students do during this unit?	1. Plant, animal & bacteria cell structure, cell specialisation, microscopes & molecule movement 2. Atomic structure, separating mixtures, the periodic table & ions & bonding 3. Energy types & transfers, power, efficiency and energy resources	1. Digestive system, food tests, the circulatory system and plant tissues 2. Mass conservation, balancing equations and relative formula mass 3. Circuits, charge, current & potential difference and mains electricity	1. Pathogens, defences, immunity and vaccines 2. Photosynthesis, glucose uses 3. Metal reactions, reactivity, pH and Endo/Exothermic reactions 4. Particle model, density and specific latent heat	1. Nervous System, endocrine system and glucose control 2. Rate of reaction factors, collision theory and catalysts 3. Atomic structure, isotopes and radiation types	1. Reproduction, DNA, variation, evolution, fossils and classification 2. Alkanes & alkenes, distillation and hydrocarbons 3. Types of force, gravity, work done, motion graphs and Newton's laws 4. Communities, biotic & abiotic factors, adaptations and biodiversity	1. Atmosphere, climate change & pollution 2. Types of wave and EM spectrum 3. Magnetism and magnetic fields
When will students be assessed?	Week beginning 11/11/19	Week beginning 16/12/19	Week beginning 10/02/20	Week beginning 23/03/20	End of Year exam (date yet to be determined)	-
How will students be assessed?	End of unit test Key piece assessment in 2 out of 3 topics	End of unit test Key piece assessment in 2 out of 3 topics	End of unit test Key piece assessment in 2 out of 3 topics	End of unit test Key piece assessment in 2 out of 3 topics	End of year exam Key piece assessment in 2 out of 3 topics	Key Piece

Key Vocabulary	See student exercise books	See student exercise books	See student exercise books	See student exercise books	See student exercise books	See student exercise books
Homework opportunities to broaden or deepen student knowledge	One homework per week linked to topics covered in class	One homework per week linked to topics covered in class	One homework per week linked to topics covered in class	One homework per week linked to topics covered in class	One homework per week linked to topics covered in class	One homework per week linked to topics covered in class
Links to the National Curriculum	**WORKING SCIENTIFICALLY** • Experimental skills and investigations • Analysis and evaluation • Measurement **SUBJECT CONTENT** • Cells and organization • Atoms, elements and compounds • Pure and impure substances • The periodic table • Energy	**WORKING SCIENTIFICALLY** • Scientific attitudes • Experimental skills and investigations • Analysis and evaluation **SUBJECT CONTENT** • Cells and organization • Nutrition and digestion • Gas exchange systems • Atoms, elements and compounds • Chemical reactions • Electricity and electromagnetism	**WORKING SCIENTIFICALLY** • Scientific attitudes • Experimental skills and investigations • Analysis and evaluation • Measurement **SUBJECT CONTENT** • Material cycles and energy • Chemical reactions • Energetics • The particulate nature of matter • Physical changes	**WORKING SCIENTIFICALLY** • Scientific attitudes • Experimental skills and investigations • Analysis and evaluation • Measurement **SUBJECT CONTENT** • Chemical reactions • Energetics • Atoms, elements and compounds • Particle model	**WORKING SCIENTIFICALLY** • Experimental skills and investigations • Analysis and evaluation **SUBJECT CONTENT** • Reproduction • Inheritance, chromosomes, DNA and genes • Atoms, elements and compounds • Pure and impure substances • Motion and forces • Relationships in an ecosystem	**WORKING SCIENTIFICALLY** • Scientific attitudes • Experimental skills and investigations • Analysis and evaluation **SUBJECT CONTENT** • Earth and atmosphere • Observed waves • Magnetism