



Denton Community College 2022/23

Departmental Curriculum Map

Subject: Science

Year Group: 10



****Topics in bold are for separate Science not for combined Science**

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Topics	1. Cell Biology 2. Organisation 3. Infection & Response 4. Bioenergetics Recap	1. Structure & Bonding 2. Chemical & Energy Changes	1. Energy 2. Electricity 3. Particle Model of Matter 4. Atomic Structure	1. Inheritance 2. Ecology	1. Organic Chemistry 2. Chemical Analysis	1. Magnetism 2. Chemistry of the Atmosphere
What will students do during this unit?	1. Recap Y9 Differentiation Cell division Molecule Movement Cultivating microbes 2. Recap Y9 Enzymes Non-communicable diseases Cancer 3. Types of Microbe Immunity Vaccines Antibiotics &	1. Recap Y9 Bonding Atomic Structure & Periodic Table development Ionic compounds Properties of matter Polymers Giant covalent Small molecules Carbon compounds Metallic Bonding & alloys Nanoparticles Transition Metals	1. Recap Y9 Kinetic energy Gravitational & Elastic potential Specific Heat Capacity Insulation 2. Recap Y9 Resistance Resistors Power & Energy Static Electric fields 3. Particle model Density Specific latent heat	1. Recap Y9 Mitosis & Meiosis Protein Synthesis Understanding genetics Inheritance probability Genetic engineering Evolution & Antibiotic resistance Evolution theory & speciation Fossils & extinction	1. Alkanes Fractional Distillation Hydrocarbon Properties Cracking Alkenes Alcohols Carboxylic acids Polymers 2. Purity & formulations Gas tests Chromatography Chemical Tests Instrumental methods	1. Magnet properties & fields Electromagnetism Electric motors Generators & transformers 2. Evolution of the atmosphere Pollution

Links to the National Curriculum	<p>WORKING SCIENTIFICALLY</p> <ul style="list-style-type: none"> ● The development of scientific thinking ● Experimental skills and strategies ● Analysis and evaluation ● Vocabulary, units, symbols and nomenclature <p>SUBJECT CONTENT</p> <ul style="list-style-type: none"> ● Cell biology ● Transport systems ● Health, disease and the development of medicines ● Photosynthesis 	<p>WORKING SCIENTIFICALLY</p> <ul style="list-style-type: none"> ● The development of scientific thinking ● Experimental skills and strategies ● Analysis and evaluation ● Vocabulary, units, symbols and nomenclature <p>SUBJECT CONTENT</p> <ul style="list-style-type: none"> ● Atomic structure & the Periodic Table ● Structure, bonding & the properties of matter ● Chemical changes ● Energy changes in chemistry 	<p>WORKING SCIENTIFICALLY</p> <ul style="list-style-type: none"> ● The development of scientific thinking ● Experimental skills and strategies ● Analysis and evaluation ● Vocabulary, units, symbols and nomenclature <p>SUBJECT CONTENT</p> <ul style="list-style-type: none"> ● Energy ● Electricity ● The structure of matter ● Atomic structure 	<p>WORKING SCIENTIFICALLY</p> <ul style="list-style-type: none"> ● The development of scientific thinking ● Experimental skills and strategies ● Analysis and evaluation ● Vocabulary, units, symbols and nomenclature <p>SUBJECT CONTENT</p> <ul style="list-style-type: none"> ● Evolution, inheritance & variation ● Ecosystems 	<p>WORKING SCIENTIFICALLY</p> <ul style="list-style-type: none"> ● The development of scientific thinking ● Experimental skills and strategies ● Analysis and evaluation ● Vocabulary, units, symbols and nomenclature <p>SUBJECT CONTENT</p> <ul style="list-style-type: none"> ● Chemical & allied industries ● Chemical analysis 	<p>WORKING SCIENTIFICALLY</p> <ul style="list-style-type: none"> ● The development of scientific thinking ● Experimental skills and strategies ● Analysis and evaluation ● Vocabulary, units, symbols and nomenclature <p>SUBJECT CONTENT</p> <ul style="list-style-type: none"> ● Magnetism & electromagnetism ● Earth & atmospheric science
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