



Denton Community College 2022/23

Departmental Curriculum Map

Subject: Science

Year Group: 11



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

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
Topics	1. Homeostasis 2. Quantitative Chemistry	1. Rates of Reaction 2. <i>Chemical Analysis</i> 3. <i>Chemistry of the Atmosphere</i> 4. Using Resources	1. Forces 2. Waves 3. <i>Space</i>	FOCUSSED REVISION	FOCUSSED REVISION
What will students do during this unit?	1. The nervous system Reaction times Endocrine system Glucose control Negative feedback Reproduction Contraception IVF The Brain The Eye Controlling body temperature Plant hormones & responses 2. Mass conservation Relative formula mass Balancing equations Uncertainty Concentration	1. Y9 Recap Rates of reaction investigation Activation energy & equilibrium Factors affecting equilibrium 2. Y9 Recap Chemical Tests Instrumental methods 3. Y9 Recap 4. Earth's resources Potable Water Lifecycle assessments Reducing waste Extracting metal Corrosion Alloys Ceramics, polymers &	1. Recap Y9 Motion Graphs Acceleration Stopping Newton's Laws Elasticity Momentum Resolving vectors Pressure Moments 2. Types of waves Wave speed Wave properties EM spectrum Visible light & lenses Using sound Black body radiation 3. Our solar system Lifecycle of a star	1. Biology Paper 1 Cell Biology Organisation Infection & Response Bioenergetics 2. Chemistry Paper 1 Atomic Structure Bonding Quantitative Chemistry Chemical Changes Energy Changes 3. Physics paper 1 Energy Electricity Particle Model of Matter Atomic Structure	1. Biology Paper 2 Homeostasis inheritance Ecology 2. Chemistry Paper 2 Rates of Reaction Organic Chemistry Chemical Analysis Chemistry of the Atmosphere Using Resources 3. Physics paper 2 Forces Waves Magnetism Space

	<p>Moles Amount of substance Limiting factors Gas volumes Percentage yield Atom economy</p>	<p>composites Haber Process & fertilisers</p>	<p>Satellites Red shift</p>		
When will students be assessed?	Once every 2 weeks	Once every 2 weeks	Once every 2 weeks	Once every 2 weeks	Once every 2 weeks
How will students be assessed?	Bi-weekly assessment using past exam questions, that will be reviewed and improved	Bi-weekly assessment using past exam questions, that will be reviewed and improved MOCK EXAMS IN NOVEMBER	Bi-weekly assessment using past exam questions, that will be reviewed and improved MOCK EXAMS IN FEBRUARY	Bi-weekly assessment using past exam questions, that will be reviewed and improved	Bi-weekly assessment using past exam questions, that will be reviewed and improved
Key Vocabulary	See medium term plans & student exercise books	See medium term plans & student exercise books	See medium term plans & student exercise books	See medium term plans & student exercise books	See medium term plans & 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
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"> Coordination & control 	<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>	<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"> Forces 	<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 	<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"> Coordination & control

	<ul style="list-style-type: none"> ● Chemical changes ● Chemical analysis 	<ul style="list-style-type: none"> ● Rate & extent of chemical change ● Chemical analysis ● Earth & atmospheric science 	<ul style="list-style-type: none"> ● Forces & motion ● Wave motion ● Space Physics 	<ul style="list-style-type: none"> ● Transport systems ● Health disease & development of medicines ● Photosynthesis ● Atomic structure & the Periodic Table ● Structure, bonding & properties of matter ● Chemical Changes ● Energy changes in Chemistry ● Chemical analysis ● Energy ● Electricity ● Structure of matter ● Atomic structure 	<ul style="list-style-type: none"> ● Ecosystems ● Evolution, inheritance & variation ● Rate & extent of chemical change ● Chemical analysis ● Chemical & allied industries ● Earth & atmospheric science ● Forces ● Force & motion ● Wave motion ● Magnetism & electromagnetism ● Space physics
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