

Teaching guide: two teachers, three years

This is a plan for teaching GCSE Combined Science: Synergy from our new draft specification (8465). First teaching starts in 2016 Autumn term and first exam is in 2019 Summer term.

This is a three-year plan based on two teachers having a total of 2-3 hours of teaching time per week during the first year and a total of 4 hours teaching time per week during the second and third years. The abbreviation RP indicates a required practical.

Year 1

Teacher A:

- Unit 1 Building blocks
- Unit 2 Transport over larger distances

Teacher B:

- Unit 5 Building blocks for understanding
- Unit 6 Interactions over small and large distances

Autumn term 2016: 14 weeks

Teacher A		Teacher B	
Topic and time (hours)	Teaching and learning links	Topic and time (hours)	Teaching and learning links
Six week teaching pack: Biomimicry (9)	Introduction to GCSE	Six week teaching pack: Biomimicry (9)	Introduction to GCSE
4.1.1 States of matter (6) RP1 and RP2	<ul style="list-style-type: none"> • Atomic structure • Systems in the body • The periodic table 	4.5.1 The periodic table (5)	<ul style="list-style-type: none"> • Atomic structure • Structure and bonding • Acids and alkalis • The rate and extent of chemical change

Spring term 2017: 13 weeks

Teacher A		Teacher B	
Topic and time (hours)	Teaching and learning links	Topic and time (hours)	Teaching and learning links
4.1.2 Atomic structure (3)	<ul style="list-style-type: none"> • States of matter • The periodic table • Structure and bonding 	4.5.2 Chemical quantities (9)	<ul style="list-style-type: none"> • Atoms into ions and ions into atoms • Carbon chemistry • Resources of materials
4.1.3 Cells in animals and plants (8.5) RP3	<ul style="list-style-type: none"> • Systems in the body 	4.6.1 Forces and energy changes (4)	<ul style="list-style-type: none"> • Magnetism and electromagnetism

Teacher A		Teacher B	
Topic and time (hours)	Teaching and learning links	Topic and time (hours)	Teaching and learning links
	<ul style="list-style-type: none"> Inheritance 		<ul style="list-style-type: none"> Forces and motion

Summer term 2017: 12 weeks

Teacher A		Teacher B	
Topic and time (hours)	Teaching and learning links	Topic and time (hours)	Teaching and learning links
4.1.4 Waves (5)	<ul style="list-style-type: none"> The Earth's atmosphere Radiation and risk States of matter 	4.6.1 Forces and energy changes (12) RP9	<ul style="list-style-type: none"> Magnetism and electromagnetism Forces and motion
4.2.1 Systems in the human body (7) RP4	<ul style="list-style-type: none"> Cells in animals and plants The rate and extent of chemical change 		

Year 2

Teacher A:

- Unit 2 Transport over larger distances continued
- Unit 3 Interactions with the environment

Teacher B:

- Unit 6 Interactions over small and large distances continued
- Unit 7 Movement and interactions

Autumn term 2017: 14 weeks

Teacher A		Teacher B	
Topic and time (hours)	Teaching and learning links	Topic and time (hours)	Teaching and learning links
4.2.1 Systems in the human body (9) RP4	<ul style="list-style-type: none"> Cells in animals and plants The rate and extent of chemical change 	4.6.2 Structure and bonding (7)	<ul style="list-style-type: none"> States of matter Atomic structure The periodic table Atoms into ions and ions into atoms Carbon chemistry
4.2.2 Plants and photosynthesis (8) RP5 and RP6	<ul style="list-style-type: none"> Cells in animals and plants The Earth's atmosphere Ecosystems and 	4.6.3 Magnetism and electromagnetism (6)	<ul style="list-style-type: none"> Forces and energy changes Forces and motion Electricity

Teacher A		Teacher B	
Topic and time (hours)	Teaching and learning links	Topic and time (hours)	Teaching and learning links
	biodiversity		
4.3.1 Lifestyle and health (6)	<ul style="list-style-type: none"> Systems in the human body The rate and extent of chemical change 	4.7.1 Forces and motion (5) RP10	Magnetism and electromagnetism

Spring term 2018: 11 weeks

Teacher A		Teacher B	
Topic and time (hours)	Teaching and learning links	Topic and time (hours)	Teaching and learning links
4.3.1 Lifestyle and health (6)	<ul style="list-style-type: none"> Systems in the human body The rate and extent of chemical change 	4.7.2 Electricity (14) RP11 and RP12	<ul style="list-style-type: none"> Forces and energy changes Magnetism and electromagnetism
4.3.2 Radiation and risk (7)	<ul style="list-style-type: none"> Atomic structure Waves 	4.7.3 Acids and alkalis (7) RP13	<ul style="list-style-type: none"> The periodic table Chemical quantities
4.3.3 Preventing, treating and curing diseases (5)	<ul style="list-style-type: none"> Lifestyle and health Waves 		

Summer term 2018: 13 weeks

Teacher A		Teacher B	
Topic and time (hours)	Teaching and learning links	Topic and time (hours)	Teaching and learning links
4.3.3 Preventing, treating and curing diseases (10)	<ul style="list-style-type: none"> Lifestyle and health Waves 	4.7.4 The rate and extent of chemical change (11) RP14 and RP15	<ul style="list-style-type: none"> The periodic table Chemical quantities Systems in the human body

Year 3

Teacher A:

- Unit 4 Explaining change

Teacher B:

- Unit 7 Movement and interactions continued
- Unit 8 Guiding spaceship Earth to a sustainable future

Autumn term 2018: 14 weeks

Teacher A		Teacher B	
Topic and time (hours)	Teaching and learning links	Topic and time (hours)	Teaching and learning links
4.4.1 The Earth's atmosphere (10) RP7	<ul style="list-style-type: none"> • Plants and photosynthesis • Carbon chemistry • Resources of materials and energy 	4.7.5 Atoms into ions and ions into atoms (5) RP16	<ul style="list-style-type: none"> • The periodic table • Chemical quantities
4.4.2 Ecosystems and biodiversity (7) RP8	<ul style="list-style-type: none"> • Waves • Plants and photosynthesis • Carbon chemistry • Resources of materials and energy 	4.8.1 Carbon chemistry (12)	<ul style="list-style-type: none"> • The periodic table • Chemical quantities • Structure and bonding • The Earth's atmosphere • Ecosystems and biodiversity
4.4.3 Inheritance (5)	<ul style="list-style-type: none"> • Cells in animals and plants • Variation and evolution 		

Spring term 2019: 12 weeks

Teacher A		Teacher B	
Topic and time (hours)	Teaching and learning links	Topic and time (hours)	Teaching and learning links
4.4.4 Variation and evolution (7)	<ul style="list-style-type: none"> • Inheritance • The rate and extent of chemical change 	4.8.2 Resources of materials and energy (8)	<ul style="list-style-type: none"> • The Earth's atmosphere • Ecosystems and biodiversity • The periodic table • Atoms into ions and ions into atoms
Revision			

Summer term 2019 – exam.