

Seneca Units Year 10 Science

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You should have been given a class code by your teacher to access the correct course.

Purple topics are triple science **only** topics only

<u>Term</u>	<u>topics</u>	<u>Seneca Course</u>	<u>Course code and title</u>
Autumn 1	Ecology (Y9)	Combined Science Biology FT	Ecology 7.1.1-7.1.2 and 7.2.1-7.2.3
		Combined Science Biology HT	Ecology 7.1.1-7.1.2 and 7.2.1-7.2.5
		Biology FT	Ecology 7.1.1-7.1.2 and 7.2.1-7.2.6
		Biology HT	Ecology 7.1.1-7.1.2 and 7.2.1-7.2.8
	Ecology (Y10)	Combined Science Biology HT and FT	Communities 7.1.1
		Combined Science Biology HT and FT	Interdependence and stability of ecosystems 7.1.2
	Waves (Y9)	Combined Science Physics FT	Transverse and longitudinal 6.1.1
		Combined Science Physics HT	Transverse and longitudinal 6.1.2
		Physics FT	Transverse 6.1.1
		Physics FT	Longitudinal 6.1.2
		Combined Science Physics FT	Describing waves 6.1.2 and 6.1.3
		Combined Science Physics FT	Calculating wave speed 6.1.3
		Combined Science Physics FT	Sound waves 6.1.4

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		Combined Science Physics HT	Basics and formula 6.1.1
		Physics HT and FT	Sound waves 6.3.1
		Physics HT	Sound waves 2,6.3.2
		Combined Science Physics HT	Ripple tank 6.1.4
		Combined Science Physics FT	Waves at a boundary 6.2.5
		Combined Science Physics HT	Waves at a boundary 6.2.5
		Combined Science Physics FT and HT	Waves at a boundary 2, 6.2.2
Quantitative Chemistry (Y9)	Chemistry FT	Measuring mass 3.1.2	
	Chemistry FT and HT	Chemical reactions and equations 1.1.2	
Chemical Change (Y9)	Chemistry FT	Alkali metals 1.1.11	
	Chemistry HT	Alkali metals 1.1.10	
	Chemistry FT	Displacement reactions 4.2.2	
	Chemistry HT	Reactivity tests and extraction 4.2.2	
	Chemistry HT	Reactions with metals and acids 4.3.1	
Organic Chemistry (Y9)	Chemistry FT and HT	Crude oil 7.1.1	
	Chemistry FT and HT	Alkanes 7.1.2	
	Chemistry HT	Fractional distillation 7.1.3	
	Chemistry FT	Fractional distillation 7.1.4	

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		Chemistry FT	Properties of hydrocarbons 7.1.3
		Chemistry FT and HT	Alkenes 7.2.1
	Energy (Y9)	Combined science Physics HT and FT	Energy stores 1.1.1
		Combined science Physics HT and FT	Storing of energy 1.1.2
		Combined science Physics HT and FT	Energy transfers 1.1.4
		Combined science Physics FT	Power and energy transfers 1.2.2
		Combined science Physics FT	Energy losses and efficiency 1.2.1
		Physics FT	Efficiency 1.2.1
		Physics HT	Energy losses and efficiency 1.1.2 and 1.1.2
		Physics FT	Energy losses 1.2.2
		Physics HT	Energy losses 1.2.3
		Combined science Physics FT and HT	Fossil fuels and geothermal 1.3.1
		Combined science Physics FT and HT	Wind and tidal 1.3.2
		Combined science Physics FT and HT	Nuclear and solar 1.3.3
	Atmosphere (Y9)	Combined science Chemistry FT	Proportions of gases in the atmosphere 9.1.1
		Chemistry FT	The early atmosphere 9.1.2
		Chemistry HT	Oxygen and Carbon dioxide in the atmosphere 9.1.2

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	Using resources (Y9)	Combined science Chemistry FT	Proportions of gases in the atmosphere 9.1.1
		Chemistry FT	The early atmosphere 9.1.2
		Chemistry HT	Oxygen and Carbon dioxide in the atmosphere 9.1.2
	Homeostasis and hormones (Y9)	Combined Science Biology FT	Homeostasis and response 5.1.1 and 5.2.1-5.2.3
		Combined Science Biology HT	Homeostasis and response 5.1.1-5.1.2 and 5.4.1-5.4.3
		Biology FT	Homeostasis and response 5.1.1 and 5.4.1
		Biology HT	Homeostasis and response 5.1.1-5.1.2 and 5.4.1-5.4.3

<u>Term</u>	<u>topics</u>	<u>Seneca Course</u>	<u>Course code and title</u>
Autumn 2	Chemical analysis (Y9)	Chemistry FT	Purity and formulations 8.1.1
		Chemistry FT and HT	Paper chromatography 8.1.2
		Chemistry FT and HT	RP paper chromatography 8.1.3
		Chemistry FT and HT	Testing for hydrogen 8.2.1

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		Chemistry FT and HT	Testing for oxygen 8.2.2
		Chemistry FT and HT	Testing for carbon dioxide 8.2.4
		Chemistry FT and HT	Summary of gas tests 8.2.5
	Rates (Y9)	Combined science Chemistry FT and HT	Chemical reactions and collisions 6.1.1
	Energy Changes (Y9)	Chemistry FT and HT	Exothermic and endothermic reactions 5.1.1
		Chemistry FT and HT	Reaction profiles 5.1.2
	Infection and response (Y9)	Biology FT	Infection and Response 3.2.1
		Biology HT	Infection and response 3.3.1-3.3.3
	Using resources (Y9)	Combined science Chemistry FT	Proportions of gases in the atmosphere 9.1.1
		Chemistry FT	The early atmosphere 9.1.2
		Chemistry HT	Oxygen and Carbon dioxide in the atmosphere 9.1.2
	Ecology and decomposition (Y9)	Combined Science Biology FT	Ecology 7.1.1-7.1.2 and 7.2.1-7.2.3
		Combined Science Biology HT	Ecology 7.1.1-7.1.2 and 7.2.1-7.2.5
		Biology FT	Ecology 7.1.1-7.1.2 and 7.2.1-7.2.6

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		Biology HT	Ecology 7.1.1-7.1.2 and 7.2.1-7.2.8
Atomic Structure Physics (Y9)	Physics FT and HT	Atomic model 4.1.1	
	Physics FT and HT	Atomic Model 2, 4.1.2	
	Physics FT and HT	Atoms and Ions 4.1.3	
	Physics FT and HT	Isotopes 4.1.4	
	Physics FT and HT	Radioactive decay 4.2.1	
	Physics FT and HT	Types of radioactive decay 4.2.2	
	Physics FT and HT	Radioactive decay equations 4.2.3	
	Physics FT and HT	Half lives and ionising radiation 4.2.4	
	Physics FT	Uses of radiation 4.2.5	
	Physics FT	Dangers of radiation 4.2.6	
	Physics HT	Uses and dangers of radiation 1&2, 4.2.5 and 4.2.6	
	Electricity (Y9)	Physics HT and FT	Static electricity 2.5.1
Physics HT and FT		Conductors	
Combined science Physics FT and HT		Current 2.1.1	
Combined science Physics FT		Circuit diagrams 2.1.1	
Combined science Physics FT		Potential difference 2.1.3	
Combined science Physics FT and HT		Ohm's Law 2.2.2	

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	Chemical analysis (Y9)	Chemistry FT	Purity and formulations 8.1.1
		Chemistry FT and HT	Paper chromatography 8.1.2
		Chemistry FT and HT	RP paper chromatography 8.1.3
		Chemistry FT and HT	Testing for hydrogen 8.2.1
		Chemistry FT and HT	Testing for oxygen 8.2.2
		Chemistry FT and HT	Testing for carbon dioxide 8.2.4
		Chemistry FT and HT	Summary of gas tests 8.2.5
	Bioenergetics	Combined science Biology HT and FT	Respiration 1 & 2, 4.2.1 & 4.2.2

<u>Term</u>	<u>topics</u>	<u>Seneca Course</u>	<u>Course code and title</u>
Spring 1	Bonding	Combined Science Chemistry FT	Metallic bonds 2.1.5
		Combined Science Chemistry HT	Metallic bonds 2.1.4
		Combined Science Chemistry HT and FT	Metals 2.3.4
		Combined Science Chemistry FT	Ionic bonds 2.1.1
		Combined Science Chemistry HT and FT	Ionic compounds 2.1.2
		Combined Science Chemistry HT and FT	Representing covalent bonds 2.1.5
		Combined Science Chemistry HT	Ionic bonds 2.1.1

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		Combined Science Chemistry HT and FT	Chemical properties 2.3.1
Homeostasis		Combined science Biology HT and FT	Blood glucose 5.3.3
		Combined science Biology HT and FT	Types of diabetes 5.3.4
		Combined science Biology FT	Hormones in reproduction 5.3.5
		Combined science Biology HT	Puberty 5.3.5
		Combined science Biology HT	Menstruation 5.3.6
		Combined science Biology HT and FT	Contraception 1 & 2 5.3.6 & 5.3.7
		Combined science Biology HT and FT	Infertility 5.3.9
		Combined science Biology HT and FT	Thyroxine and adrenalin 5.3.2
Chemistry Atomic Structure 1		Chemistry HT	Atom size and number 1.1.5
		Chemistry HT	Periodic table 1.1.6
		Chemistry HT	Isotopes 1.1.7
Cells and organisation		Combined science Biology HT and FT	Types of cells 1.1.1
		Combined science Biology HT and FT	Standard form 1.1.2
		Combined science Biology HT and FT	Microscopy 1 & 2 1.1.8 & 1.1.9
		Combined science Biology HT and FT	Diffusion 1 & 2 1.3.1 & 1.3.2
		Combined science Biology HT and FT	Enzymes 2.2.1
		Combined science Biology HT and FT	Digestive enzymes 2.2.2
		Combined science Biology HT and FT	Digestive enzymes 2 2.3

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		Combined science Biology HT and FT	End of topic test 2.2.4
		Combined science Biology HT and FT	The blood 2.3.5 & 2.3.6
		Combined science Biology HT and FT	Treatments for CHD 2.4.4

<u>Term</u>	<u>topics</u>	<u>Seneca Course</u>	<u>Course code and title</u>
Spring 2	Cells and organisation	Combined science Biology HT and FT	Types of cells 1.1.1
		Combined science Biology HT and FT	Standard form 1.1.2
		Combined science Biology HT and FT	Microscopy 1 & 2 1.1.8 & 1.1.9
		Combined science Biology HT and FT	Diffusion 1 & 2 1.3.1 & 1.3.2
		Combined science Biology HT and FT	Enzymes 2.2.1
		Combined science Biology HT and FT	Digestive enzymes 2.2.2
		Combined science Biology HT and FT	Digestive enzymes 2.2.3
		Combined science Biology HT and FT	End of topic test 2.2.4
		Combined science Biology HT and FT	The blood 2.3.5 & 2.3.6
		Combined science Biology HT and FT	Treatments for CHD 2.4.4
	Particles	Combined science Physics HT and FT	Density 3.1.3
		Combined science Physics HT and FT	Heat capacity 3.2.1
		Physics HT and FT	Particle motion in gases 1, 3.3.1
		Physics HT and FT	Particle motion in gases 2, 3.3.2

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		Combined science Physics HT and FT	Latent heat 3.2.3
	Bioenergetics	Combined science Biology HT and FT	Respiration 4.2.1
		Combined science Biology HT and FT	Respiration 2 4.2.2
	Atmosphere	Chemistry HT	Greenhouse gases 9.1.3
		Chemistry HT	Sources of atmospheric pollutants 9.1.6
	Bioenergetics 2	Combined science Biology HT and FT	Photosynthesis 4.1.1
		Combined science Biology HT and FT	Photosynthesis 2 limiting factors 4.1.2
		Combined science Biology HT and FT	Experiments (RP) 4.1.3
	Homeostasis	Combined science Biology HT and FT	Blood glucose 5.3.3
		Combined science Biology HT and FT	Types of diabetes 5.3.4
		Combined science Biology FT	Hormones in reproduction 5.3.5
		Combined science Biology HT	Puberty 5.3.5
		Combined science Biology HT	Menstruation 5.3.6
		Combined science Biology HT and FT	Contraception 1 & 2 5.3.6 & 5.3.7
		Combined science Biology HT and FT	Infertility 5.3.9
		Combined science Biology HT and FT	Thyroxine and adrenalin 5.3.2
	Chemistry Atomic Structure 2	Combined science Chemistry FT	Metals 1.1.9
		Combined science Chemistry FT	Noble gases and halogens 1.1.8

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		Combined science Chemistry HT	Noble gases and halogens 1.1.9
		Chemistry HT	Transition metals 1.1.11
	Inheritance	Biology FT	DNA and protein synthesis 6.1.4
		Combined science Biology FT	Genetic inheritance 1 &2, 6.1.4 & 6.1.5
		Combined science Biology FT	Inherited disorders 1& 2, 6.1.6 & 6.1.7
		Combined science Biology FT	Genetic engineering and pros and cons 6.2.4 & 6.2.5
		Combined science Biology FT	Evolution and Extinction 6.2.6 & 6.2.7

<u>Term</u>	<u>topics</u>	<u>Seneca Course</u>	<u>Course code and title</u>
Summer 1	Chemistry Atomic Structure 1	Chemistry HT	Atom size and number 1.1.5
		Chemistry HT	Periodic table 1.1.6
		Chemistry HT	Isotopes 1.1.7
	Atmosphere	Chemistry HT	Greenhouse gases 9.1.3
		Chemistry HT	Sources of atmospheric pollutants 9.1.6
	Atomic Structure Physics	Physics FT and HT	Atomic model 4.1.1
		Physics FT and HT	Atomic Model 2, 4.1.2
Physics FT and HT		Atoms and Ions 4.1.3	

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		Physics FT and HT	Isotopes 4.1.4
		Physics FT and HT	Radioactive decay 4.2.1
		Physics FT and HT	Types of radioactive decay 4.2.2
		Physics FT and HT	Radioactive decay equations 4.2.3
		Physics FT and HT	Half lives and ionising radiation 4.2.4
		Physics FT	Uses of radiation 4.2.5
		Physics FT	Dangers of radiation 4.2.6
		Physics HT	Uses and dangers of radiation 1&2, 4.2.5 and 4.2.6
Forces	Combined science Physics HT and FT	Mechanical work 1.1.4	
	Combined science Physics FT	Stopping distances 5.3.5	
	Combined science Physics HT	Stopping distances 5.3.7	
	Combined science Physics HT and FT	Distance and speed time graphs 5.1.4	
	Physics HT	Momentum 5.3.3	
Using resources	Combined science Chemistry HT and FT	LCA 10.2.1	
	Combined science Chemistry HT and FT	Recycling 10.2.2	
Waves			
Quantitative Chemistry	Combined science Chemistry HT and FT	Relative formula Mass 3.1.1	
	Combined science Chemistry HT and FT	Measuring mass 3.1.2	
	Chemistry HT	Moles 3.1.4	

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	Organic Chemistry	Combined science Chemistry HT	Cracking and alkenes 7.1.5
		Combined science Chemistry HT and FT	Alkenes and reactions of alkenes 7.2.1 & 7.2.2
		Chemistry HT	Alcohols and reactions of alcohols 7.2.4 & 7.2.5
		Chemistry HT	Carboxylic acids and reactions of carboxylic acids 7.2.6 & 7.2.7
	Chemical analysis	Combined science Chemistry HT and FT	Identification of common gases 1 & 2, 8.2.1 & 8.2.2
		Chemistry HT	Flame tests and RP flame tests 8.3.1 & 8.3.2
		Chemistry HT	Metal hydroxides 8.3.3
		Chemistry HT	Carbonates, halides and sulfates 8.3.4
		Chemistry HT	EOTT 8.3.6
		Chemistry HT	Grade 9 Chem analysis 8.3.7

<u>Term</u>	<u>topics</u>	<u>Seneca Course</u>	<u>Course code and title</u>
Summer 2	Forces	Combined science Physics HT and FT	Mechanical work 1.1.4
		Combined science Physics FT	Stopping distances 5.3.5
		Combined science Physics HT	Stopping distances 5.3.7

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		Combined science Physics HT and FT	Distance and speed time graphs 5.1.4
		Physics HT	Momentum 5.3.3
	Infection and response	Combined Science Biology HT and FT	Antibodies and vaccination 3.1.5
		Combined Science Biology HT and FT	Antibiotics 3.1.6
		Combined Science Biology HT and FT	Drug development 3.1.7
		Combined Science Biology HT and FT	Drug testing 3.1.8
	Using resources	Combined science Chemistry HT and FT	LCA 10.2.1
		Combined science Chemistry HT and FT	Recycling 10.2.2
	Rates	Combined science Chemistry FT	Catalysts 6.1.2
		Combined science Chemistry FT	Reversible reactions and equilibrium 6.2.1
		Combined science Chemistry FT	EOTT 6.2.2
		Combined science Chemistry HT	EOTT 6.2.4
	Chemical change	Chemistry HT	Soluble salts 4.3.2
		Combined science Chemistry FT	Measuring pH and neutralisation 4.3.4
		Combined science Chemistry HT	The pH scale and neutralisation 4.3.3 & 4.3.4
		Chemistry HT	Neutralisation and titrations 4.3.5
	Magnetism		

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	Ecology	Combined Science Biology HT and FT	Communities 7.1.1
		Combined Science Biology HT and FT	Interdependence and stability of ecosystems 7.1.2
	Electricity	Physics HT and FT	Static electricity 2.5.1
		Physics HT and FT	Conductors
		Combined science Physics FT and HT	Current 2.1.1
		Combined science Physics FT	Circuit diagrams 2.1.1
		Combined science Physics FT	Potential difference 2.1.3
		Combined science Physics FT and HT	Ohm's Law 2.2.2