

Remote Curriculum

Year 11 Science



How it Works:

1. Find the correct week commencing row.
2. Find today`s day.
3. Chose a biology, chemistry or physics task listed for that day – hold ctrl and click the chosen link.
 - a. If you don`t recognise the work, it appears too difficult or the link does not load;
 - i. Try another task – look at the previous/next lesson or look at other days to find something familiar – You won`t run out of work.
4. Some lessons have links to PowerPoints and other resources beneath the video and/or Starter Quiz (LSQ)
5. Complete any starter quizzes
 - a. Write your answer down
 - b. Mark your answers and write down any corrections
6. Watch the videos and take notes.
7. Pause if/when instructed to do so to answer questions or respond.
8. Complete and go onto the next task.

Week Commencing	Week	Day	Biology Hold ctrl and click	Chemistry Hold ctrl and click	Physics Hold ctrl and click
2/9/24	A	Monday	Alleles, genotype, and phenotype	Earth's resources and sustainable development	Transverse waves
		Tuesday	Models of single-gene inheritance: Punnett squares	Fractional distillation of crude oil	Representing transverse waves
		Wednesday	Models of single-gene inheritance: family tree diagrams	Cracking fractions of crude oil	Representing longitudinal waves
		Thursday	Explaining inheritance: Mendel and beyond	Polymer structures	Oscilloscope
		Friday	The inheritance of biological sex in humans	Developing a reactivity series for metals	Measuring the speed of water waves from distance and time
9/9/24	B	Monday	The fossil record provides evidence for evolution	Extraction of metals by reduction	Measuring waves on a string
		Tuesday	Common ancestors and transitional species	Life cycle assessments (LCAs)	The wave equation
		Wednesday	Selective breeding and human food security	Earth's atmosphere (approximate values)	Using the wave speed equations
		Thursday	Darwin, Wallace and the theory of evolution by natural selection	Evolution of Earth's atmosphere	Measuring water waves in a ripple tank
		Friday	The evolution of new species	Burning hydrocarbons	Measuring the speed of sound in air and solids
16/9/24	A	Monday	Components of an ecosystem	Atmospheric pollutants	Plotting magnetic fields

		Tuesday	Measuring the size and distribution of populations of organisms	Acid rain and chemical weathering	An electromagnet
		Wednesday	Estimating population size using quadrats: practical	Greenhouse gases	Strength of an electromagnet
		Thursday	Estimating population size and distribution using transects: practical	Carbon dioxide in the atmosphere	Applications of electromagnets
		Friday	Competition and adaptations in ecosystems	Global climate change and the effects	An electric motor
23/9/24	B	Monday	The role of microorganisms in decomposition	Human activity	Reflection of light (including specular and diffuse)
		Tuesday	Factors affecting the rate of decomposition	Ozone layer: a story of global success	Refraction through a rectangular block
		Wednesday	The effect of temperature on the rate of decomposition by an enzyme	Alkenes	Refraction through a semicircular block
		Thursday	The effect of temperature on the rate of decomposition by an enzyme: data analysis and evaluation	Alcohols	Light and colour
		Friday	Material cycles: the carbon cycle	Chemical tests involving alkanes, alkenes and alcohols	Convex lenses (including magnification)
30/9/24	A	Monday	Material cycles: the water cycle	Carboxylic acids and esters	Scale diagrams for convex lenses (including magnification)
		Tuesday	Variation and genetic mutations	Addition polymerisation	Virtual images from convex and concave lenses (including magnification)
		Wednesday	Natural selection at the genetic level	Polymer properties and problems	The spectrum of electromagnetic waves
		Thursday	Mutations and evolution in bacteria	Natural polymers	Absorbing infrared radiation practical
		Friday	Sexual and asexual reproduction	Bonding to carbon atoms	Emitting infrared and black body radiation
7/10/24	B	Monday	The genome	Diamond and graphite	Ionising electromagnetic radiation
		Tuesday	The chemical structure of DNA	Using models to explain state changes	Non-ionising electromagnetic radiation
		Wednesday	The genome, the environment and phenotype	Graphene and fullerenes	Electrical resistance
		Thursday	The human endocrine system	Discovery and uses of carbon nanostructures	Length of a wire
		Friday	Insulin and the control of blood sugar level	Hydrocarbons	Mains electricity
14/10/24	A	Monday	160 Introduction to Ecology	137 Crude Oil	175 Transverse and Longitudinal Waves 1
		Tuesday	161 Biotic and Abiotic Factors	138 Properties of Alkanes	214 Transverse and Longitudinal Waves 2
		Wednesday	073 Communities: Biotic and Abiotic Factors	139 Fractional Distillation	215 Properties of Waves
		Thursday	162 Biodiversity and Why it Matters	140 Hydrocarbons as Fuels	216 Reflection and Refraction of Waves
		Friday	166 Ecological Sampling	141 Cracking	178 Reflection of Light

21/10/24	B	Monday	075 Measuring Distribution and Abundance (Quadrats and Transects)	142 Structure of Alkenes	179 Refraction of Light
		Tuesday	076 Population Size: Practical	123 Endothermic and Exothermic	180 Lenses
		Wednesday	069 Interdependence	124 Energy Changes Practical	181 The Eye
		Thursday	077 Feeding Relationships	125 Energy Diagrams	176 Sound Waves
		Friday	070 Food Chains	127 Calculating the Rate of Reaction 128 Rates of Reaction from Graphs	177 Uses of Sound Waves
28/10/24	A	Monday	071 Food Webs	129 Effect of Temperature on Reaction Rate 131 Effect of Concentration on Reaction Rate	217 Wave Speed
		Tuesday	072 Human Impact on Food Webs	132 Catalysts	218 Electromagnetic Spectrum
		Wednesday	074 Competition and Adaptations	134 Equilibrium	219 Absorption of Infrared Radiation
		Thursday	078 Adaptations: Predator Prey Relationships	190 Ionic Bonding	220 Electromagnetic Waves and Communication
		Friday	077 Adaptations: Tropical Climates	191 Ionic Structures	061 Magnetism and Magnetic Materials
4/11/24	B	Monday	075 Adaptations: Cold Climates	192 Ionic Structures and Electrolysis	062 Magnetic Fields
		Tuesday	076 Adaptations: Dry Climates	118 Electrolysis 1	063 Earth's Magnetic Field and Compasses
		Wednesday	079 Adaptations Practical	119 Electrolysis 2	Seeing a Magnetic Field
		Thursday	082 Impact of Change and Maintaining Biodiversity	120 Electrolysis Practical	Uses of Magnetic Materials
		Friday	163 Deforestation	121 Extracting Aluminium	221 Magnetism and Magnetic Fields
11/11/24	A	Monday	081 Deforestation, Peat Bogs and Global Warming	019 Changes of State and Conservation of Mass	222 Magnetic Fields and Currents
		Tuesday	164 Climate Change Through Global Warming	213 Conservation of Mass	223 Motors
		Wednesday	080 Food Security and Sustainability	104 Reacting Masses	167 Metals
		Thursday	083 Pollution	103 Conservation of Mass and Moles	098 Metallic Bonding
		Friday	165 The Problem with Plastics	130 Collision Theory	194 Metallic Structure and Properties
18/11/24	B	Monday	055 Menstrual Cycle	101 Understanding Chemical Reactions	190 Ionic Bonding
		Tuesday	056 Controlling Fertility and Contraception	102 Writing Chemical Word Equations	191 Ionic Structures
		Wednesday	058 Sexual and Asexual Reproduction 1	214 Chemical Formulae	064 Static Electricity – Attraction and Repulsion
		Thursday	060 Sexual and Asexual Reproduction 2	101 Balancing Equations	065 Investigating Static Charge
		Friday	182 The Gene	215 Balancing Chemical Equations	068 Electricity as an Energy Pathway
25/11/24	A	Monday	183 Using Genetics: Inheritance	216 Practicing Balancing Chemical Equations	066 Building and Drawing Simple Circuits 1
		Tuesday	001 Animal Cells (Eukaryotes)	105 Deducing Balancing Numbers	067 Building and Drawing Simple Circuits 2
		Wednesday	007 Mitosis and the Cell Cycle	102 Molecular Mass	170 Energy Sources
		Thursday	059 Mitosis and Meiosis	041 The Model of the Atom	171 Charges and Fields

		Friday	061 DNA, The Human Genome and Protein Synthesis	039 The Structure of the Atom	172 Current and Charge
2/12/24	B	Monday	062 Inheritance: Mendel and Sex Determination	088 Sub-Atomic Particles and Isotopes	175 Current and Charge Characteristics
		Tuesday	063 Inherited Disorders and Family Trees	059 Metals and Non-Metals	176 Current and Charge Practical
		Wednesday	064 Theories of Evolution	167 Metals	173 Potential Difference and Resistance
		Thursday	186 Darwin's Theory	098 Metallic Bonding	154 Resistance
		Friday	065 Natural Selection	194 Metallic Structure and Properties	174 Resistance Practical
9/12/24	A	Monday	066 Speciation	090 Group 1	177 Light-Dependent Resistors and Thermistors
		Tuesday	187 Fossils	108 Reactions of Metals with Oxygen	178 Series Circuits
		Wednesday	067 Fossils: Extinction and Evidence for Evolution	109 Reactivity of Metals	155 Series Circuits and Kirchoff's Voltage Law
		Thursday	073 Classification	110 Extracting Metals from Ores	179 Parallel Circuits
		Friday	074 Evolutionary Trees	121 Extraction of Aluminium	156 Parallel Circuits and Kirchoff's Current Law
16/12/24	B	Monday	184 Using Genetics: Selective Breeding	168 Comparing Reactivity 1 169 Comparing Reactivity 2	180 Alternating Current
		Tuesday	070 Selective Breeding	172 Comparing Reactivity 3	181 Electrical Power
		Wednesday	071 Genetic Engineering	170 Displacement Reactions 1	182 Electrical Current and Energy Transfer
		Thursday	185 Using Genetics: Cloning	171 Displacement Reactions 2	183 Electrical Energy and kWh
		Friday	072 Cloning in Plants and Animals	112 Acids and Metals	184 Cables and Plugs