Year 9

Date	Topic	Lesson number	Lesson Title	Homework	Cover/Isolation/absence work	Learning outcomes Year 9
WB 01/09/25						Staff INSET
WB 08/09/25	SCR Reactivity	1	Atomic structure and reactivity	SPARX Science homework: Skills	https://conteluxhub.org.uk/Lessons?n=1289	Use the periodic table to work out numbers of protons, neutrons and electrons Draw and write the electron configuration for given atoms Explain why most atoms react but group 0 do not
	SCR Reactivity	2	Reactions and bonding		https://conteluxhub.org.uk/Lessons?n=1290	Draw and describe the formation of ions Describe the formation of one type of chemical bond Describe the link between place in the periodic table and the ion formed
	SCR Reactivity	3	Atomic and formula mass, balancing equations		https://conteluxhub.org.uk/Lessons?n=1291 https://conteluxhub.org.uk/Lessons?n=1292	Write and interpret chemical formulae Calculate relative formula mass Balance symbol equations
WB 15/09/25	SCR Reactivity	4	Acids and metals	SPARX Science homework: Photosynthesis & Reactivity	https://conteluxhub.org.uk/Lessons?n=1383	Record observations and evidence for a chemical reaction Write word (balanced symbol) equations for the reactions of metals and acids Describe the test for hydrogen gas
	SCR Reactivity	4	Acids and metals		https://conteluxhub.org.uk/Lessons?n=1383	Record observations and evidence for a chemical reaction Write word (balanced symbol) equations for the reactions of metals and acids Describe the test for hydrogen gas
	SCR Reactivity	5	Acids and metal oxides		https://conteluxhub.org.uk/Lessons?n=1384	Write equations to describe the reactions of metal oxides and acids Describe the steps in the production of a salt from a given metal oxide and an acid Compare the reactions of metal oxides with those of metals and acids
WB 22/09/25	SCR Reactivity	5	Acids and metal oxides		https://conteluxhub.org.uk/Lessons?n=1384	Write equations to describe the reactions of metal oxides and acids Describe the steps in the production of a salt from a given metal oxide and an acid Compare the reactions of metal oxides with those of metals and acids
	SCR Reactivity	6	Acids and carbonates	SPARX Science homework: Reactivity	https://conteluxhub.org.uk/Lessons?n=1386	Make and record observations of evidence for a chemical reaction Write word and symbol equations for the reaction of metal carbonates with acids Describe the test for carbon dioxide and the positive result
	SCR Reactivity	7	Acids and alkali		https://conteluxhub.org.uk/Lessons?n=1387	Write word equations to represent the products and reactants in acid and alkali reactions Collect repeatable measurements and calculate a mean Describe a method to produce crystals of a named salt.
WB 29/09/25	SCR Reactivity	8	Salt preparation	SPARX Science homework: Photosynthesis & Reactivity	https://conteluxhub.org.uk/Lessons?n=1390	Choose appropriate chemicals and equipment to prepare a given salt Write a risk assessment for the chosen practical Produce a detailed method in flowchart showing how to prepare crystals of the salt
	SCR Reactivity	9	The reactivity series		https://conteluxhub.org.uk/Lessons?n=1400	Describe the reactivity series for metals Use the reactivity series to predict a reaction Write word and symbols equations to represent the reactions
	SCR Reactivity	10	Extraction of metals in terms of reactivity		https://conteluxhub.org.uk/Lessons?n=1402	Explain why most metals are not found in their element form Describe how metals can be extracted using carbon Write word and symbol equations to represent the reactions
WB 06/10/25	SCR Reactivity	11	SCR MLA - retests/ respply/reassess	SPARX Science homework: Photosynthesis & Reactivity		
	SCR Reactivity	12	Displacement		https://conteluxhub.org.uk/Lessons?n=1403	Use the reactivity series to predict whether a reaction will occur Make and record observations for evidence for a reaction Write word and symbol equations to represent reactions seen
	SCR Reactivity	13	Uses of metals and alloys		https://conteluxhub.org.uk/Lessons?n=1404	Link properties of metals to their uses Describe the difference between a pure metal and an alloy Explain why alloys are more useful than pure metal
WB 13/10/25	SCR Reactivity	14	Producing a voltage	SPARX Science homework: Photosynthesis & Reactivity	https://conteluxhub.org.uk/Lessons?n=1406 https://conteluxhub.org.uk/Lessons?n=1405	Form a hypothesis to investigate Identify variables to change, measure and control Produce a table of results to test the hypothesis Form a conclusion based on evidence collected and back it up with data Check the reproducibility of the conclusion
	SCR Reactivity	14	Producing a voltage		https://conteluxhub.org.uk/Lessons?n=1406 https://conteluxhub.org.uk/Lessons?n=1405	Form a hypothesis to investigate Identify variables to change, measure and control Produce a table of results to test the hypothesis Form a conclusion based on evidence collected and back it up with data Check the reproducibility of the conclusion
	SCR Reactivity	15	End of unit test			
WB 20/10/25	SPE Electricity and magnetism	1	Circuits	SPARX Science homework: Reactivity	https://conteluxhub.org.uk/Lessons?n=1350	Name common circuit symbols Make basic observations on what is needed for a circuit to work Use a model to describe electricity
	SPE Electricity and magnetism	1	Circuits		https://conteluxhub.org.uk/Lessons?n=1350	Name common circuit symbols Make basic observations on what is needed for a circuit to work Use a model to describe electricity
	SCR Reactivity	16	End of unit retests/ respply/reassess lesson			
WB 27/10/25 October half term						
WB 03/11/25	SPE Electricity and magnetism	2	Current in a series circuit	SPARX Science homework: Electricity	https://conteluxhub.org.uk/Lessons?n=1351	Use an ammeter to make and record measurements of current at different points in a series circuit Describe how current behaves in a series circuit Describe and explain the effect of adding extra bulbs on current
	SPE Electricity and magnetism	3	Current in a parallel circuit		https://conteluxhub.org.uk/Lessons?n=1352	Recognise and draw parallel circuits Make and record measurements of current in parallel Describe how current behaves in parallel Make predictions for untested circuits.
	SPE Electricity and magnetism	4	Potential difference and cells		https://conteluxhub.org.uk/Lessons?n=1352 https://conteluxhub.org.uk/Lessons?n=1354	Describe potential difference using a model Use a voltmeter to measure potential difference across components Describe pd in series and parallel circuits
WB 10/11/25	SPE Electricity and magnetism	5	Ohm's law	SPARX Science homework: Electricity & Energetics	https://conteluxhub.org.uk/Lessons?n=1355	Investigate the relationship between current, pd and resistance Use data collected to inform a conclusion Use an equation to calculate current, pd or resistance
	SPE Electricity and magnetism	6	Resistance of a wire		https://conteluxhub.org.uk/Lessons?n=1356	Identify variables to change, measure and control Collect and display results appropriately
	SPE Electricity and magnetism	6	Resistance of a wire		https://conteluxhub.org.uk/Lessons?n=1356	Describe and explain the effect of length of wire on resistance Identify variables to change, measure and control Collect and display results appropriately Describe and explain the effect of length of wire on resistance
WB 17/11/25	SPE Electricity and magnetism	7	Insulators and static electricity	SPARX Science homework: Electricity & Energetics	https://conteluxhub.org.uk/Lessons?n=1358	Describe what is meant by static electricity Describe how objects can become charged Describe how the charge can produce a force between charged objects
	SPE Electricity and magnetism	8	SPE MLA - retests/ respply/reassess			
	SPE Electricity and magnetism	9	Magnetic fields		https://conteluxhub.org.uk/Lessons?n=1362	Draw the field lines around a magnet Describe the magnetic field around a magnet, or the Earth, using fields lines Explain attraction and repulsion of magnets using field line patterns.
WB 24/11/25	SPE Electricity and magnetism	10	Electromagnetism	SPARX Science homework: Electricity & Energetics	https://conteluxhub.org.uk/Lessons?n=2770	Describe how to make a simple electromagnet Draw the shape of the magnetic field around a straight wire Identify key variables for an investigation of electromagnets
	SPE Electricity and magnetism	11	Investigating electromagnets		https://conteluxhub.org.uk/Lessons?n=1366	Investigate the factors which affect the strength of an electromagnet Plot a graph of data Analyse secondary data to draw conclusions
	SPE Electricity and magnetism	12	Uses of electromagnets		https://conteluxhub.org.uk/Lessons?n=1366	To state how electromagnets are used in a variety of devices To understand how the motor effect is caused by magnetic fields To state the factors affecting the speed of a direct motor
WB 01/12/25	SPE Electricity and magnetism	13	Sound devices	SPARX Science homework: Electricity & Energetics	https://conteluxhub.org.uk/Lessons?n=1441	Describe how a microphone works Describe how a loudspeaker works Explain why the frequency of the sound produced in the speaker is the same as the original sound wave
	SPE Electricity and magnetism	14	End of unit test			
	SBB Biological systems and processes	1	The skeletal system		https://conteluxhub.org.uk/Lessons?n=1444	Describe the functions of the skeletal system Describe the role of different parts of joints Describe and explain patterns in data
WB 08/12/25	SBB Biological systems and processes	2	Muscles	SPARX Science homework: Magnetism	https://conteluxhub.org.uk/Lessons?n=1445	Identify some of the major skeletal muscles in the body Measure and record the force of some of the skeletal muscles in the body Describe the action of muscles, including antagonistic muscle pairs
	SPE Electricity and magnetism	15	End of unit retests/ respply/reassess lesson			
	SBB Biological systems and processes	3	The respiratory system structure & gas exchange		https://conteluxhub.org.uk/Lessons?n=1448	Describe the function of the structures in the respiratory system Describe, using knowledge of diffusion, how gases are absorbed from the alveoli into the blood stream Explain how the lungs and alveoli are adapted for their function
WB 15/12/25	SBB Biological systems and processes	4	Breathing and respiration	SPARX Science homework: Magnetism & Forces	https://conteluxhub.org.uk/Lessons?n=1007	Describe the process involved in breathing Use words and an equation to describe respiration Compare lung volumes in boys and girls, calculating means and identify the range in data collected
	SBB Biological systems and processes	5	Respiration and exercise		https://conteluxhub.org.uk/Lessons?n=1449	Describe how materials are transported in the body Explain practical observations in terms of respiration Describe and explain the effects of exercise on the respiratory system
	SBB Biological systems and processes	6	Aerobic and anaerobic respiration		https://conteluxhub.org.uk/Lessons?n=1447 https://conteluxhub.org.uk/Lessons?n=1449	Compare aerobic and anaerobic respiration in animals Describe anaerobic respiration in yeast using words and an equation State some uses of anaerobic respiration
WB 22/12/25 Christmas holidays						
WB 05/01/26	SBB Biological systems and processes	7	SBB MLA - retests/ respply/reassess	SPARX Science homework: Magnetism & Forces		
WB 12/01/26	SBB Biological systems and processes	8	Effects of smoking	SPARX Science homework: Skeletal system & Forces	https://conteluxhub.org.uk/Lessons?n=1451	Describe the effects of cigarettes on the tissues of the lungs and on gaseous exchange Describe and explain the impacts on the health of smokers and their unborn babies Describe trends in secondary data
	SBB Biological systems and processes	9	Effects of alcohol		https://conteluxhub.org.uk/Lessons?n=1452	Describe the effects of alcohol on the body and behaviour Describe the health, social and economic effects of alcohol Display and interpret secondary data appropriately
	SBB Biological systems and processes	10	DNA, genes and chromosomes		https://conteluxhub.org.uk/Lessons?n=1453	Identify DNA, genes and chromosomes from images or descriptions Describe the work of Franklin, Wilkins, Watson and Crick Describe the structure of DNA and use a model to represent it
WB 19/01/26	SBB Biological systems and processes	11	Inheritance	SPARX Science homework: Muscles	https://conteluxhub.org.uk/Lessons?n=1455	Explain why children inherit characteristics from both parents Use genetic terms correctly Draw and interpret simple Punnett squares to show inheritance
	SBB Biological systems and processes	12	SBB End of unit test			
	SBE Ecological relationships and classification	1	Food chains and webs		https://conteluxhub.org.uk/Lessons?n=1185	Interpret food webs Describe ways in which animals and plants are interdependent Draw and interpret pyramids of number
WB 26/01/26	SBE Ecological relationships and classification	2	Decay	SPARX Science homework: The lungs & adaptations in animals	https://conteluxhub.org.uk/Lessons?n=1188	State the best conditions for decay Explain the importance of decay Describe what causes decay Explain the design features of a compost bin.
	SBB Biological systems and processes	13	SBB End of unit retests/ respply/reassess lesson			
	SBE Ecological relationships and classification	3	Impacts on food webs		https://conteluxhub.org.uk/Lessons?n=1191	Describe how changes in the environment can affect different organisms Explain how changes in the environment can affect organisms within a food web Explain the process of bioaccumulation
WB 02/02/26	SBE Ecological relationships and classification	4	Estimating populations	SPARX Science homework: Breathing & Natural selection	https://conteluxhub.org.uk/Lessons?n=1192	Make and record measurements to estimate a population Process results appropriately and compare with given values Suggest how to improve accuracy
	SBE Ecological relationships and classification	5	Fieldwork		https://conteluxhub.org.uk/Lessons?n=1193	Make and record measurements to estimate the population of daisies Process the results appropriately Apply learning to process secondary data
	SBE Ecological relationships and classification	6	Classifying living organisms		https://conteluxhub.org.uk/Lessons?n=1198	Name the main features of the five chordate groups Classify organisms given appropriate information Explain the basis of the Linnaean classification
WB 09/02/26	SBE Ecological relationships and classification	9	SBE MLA - retests/ respply/reassess	SPARX Science homework: Respiration & Evolution		