Year 8

Date	Topic	Lesson number	Lesson Title	Homework	Cover/Isolation/absence work	Year 8
WB 01/09/25						Staggered return - No lessons
	8BD Digestion and nutrition	1	A healthy human diet		https://continuityoak.org.uk/Lessons?r=2667 https://continuityoak.org.uk/Lessons?r=1929	Name the components of food and describe what each is needed for in the body Interpret and make calculations from nutrition labels Calculate energy requirements for different activities
	8BD Digestion and nutrition	2	Consequences of poor diet		https://continuityoak.org.uk/Lessons?r=1339	Describe some of the diseases linked with nutrient deficiency Describe some of the diseases linked with imbalances in energy intake Interpret data on the incidence of food related diseases
WB 08/09/25	8BD Digestion and nutrition	3	Testing for carbohydrates	SPARX Science homework: Skills	https://continuityoak.org.uk/Lessons?r=1341	Describe the difference between the two carbohydrates Describe how to test for starch and sugar and their positive result Work safely to carry out chemical tests for the presence of starch and sugar and record the results
	8BD Digestion and nutrition	4	Testing for fat & protein		https://continuityoak.org.uk/Lessons?r=1342	Describe the chemical test for protein and fat and their positive results Safely carry out the tests for protein and fat and record the results Use the results collected to draw conclusions
	8BD Digestion and nutrition	5	Digestive system		https://continuityoak.org.uk/Lessons?r=1344	Explain why digestion is necessary Label the organs of the digestive system and describe their function Explain the importance of gut bacteria Describe how the intestines are adapted for their function
	8BD Digestion and nutrition	6	Digestion & absorption		https://continuityoak.org.uk/Lessons?r=1345 https://continuityoak.org.uk/Lessons?r=1931	Describe the action of the enzymes in the digestive system Explain the results of the 'model gut' experiment Evaluate the model
WB 15/09/25	8BD Digestion and nutrition	7	MUA - reteach/reapply/ reassess	SPARX Science homework: Digestion		
	8BD Digestion and nutrition	8	How does temperature affect enzymes?		https://continuityoak.org.uk/Lessons?r=1346	Identify variables to change, measure and control to test a hypothesis Draw a table to record results Draw a conclusion from results obtained
	8BD Digestion and nutrition	9	Energy release		https://continuityoak.org.uk/Lessons?r=1340	State uses for the energy released Describe how energy is released from the food we eat Evaluate a model for respiration
	8BD Digestion and nutrition	10	End of unit test			
WB 22/09/25	8CP The periodic table	1	Elements & the periodic table	SPARX Science homework: Digestion	https://continuityoak.org.uk/Lessons?r=1323	Define elements, name the two types of elements and locate them on the periodic table Recognize elements from drawings or names Describe the rules for writing chemical symbols
	8CP The periodic table	2	Atomic model & electron configuration		https://continuityoak.org.uk/Lessons?r=1325	Label a diagram of the atom and describe its structure Draw and write electron configuration for any of the first 20 elements Describe the link between electron configuration and place in the periodic table
	8CP The periodic table	3	Properties of the elements & the periodic table		https://continuityoak.org.uk/Lessons?r=1328 https://continuityoak.org.uk/Lessons?r=1327	Describe some properties and uses of metals and non-metal elements Describe some of the stages in the formation of the periodic table Explain how the properties of the elements were used in early versions of the periodic table
	8BD Digestion and nutrition	11	End of unit reteach/ reapply/reassess lesson			
WB 29/09/25	8CP The periodic table	4	Chemical reactions & compound formation	SPARX Science homework: Digestion	https://continuityoak.org.uk/Lessons?r=1329 https://continuityoak.org.uk/Lessons?r=1331	Describe compounds and use particle diagrams to represent them Make a simple compound and explain how it is different from the elements it is made of Name compounds given the elements contained
	8CP The periodic table	5	Understanding chemical formulae		https://continuityoak.org.uk/Lessons?r=1330	Name compounds given the elements or formulae Write formula using ideas of valency Interpret formulae in terms of number of each atom are present
	8CP The periodic table	6	What happens to mass during a reaction?			Safely make a compound and predict the change in mass during the reaction Make accurate measurements to test the prediction made Use data collected to check the prediction and explain observations
	8CP The periodic table	7	MUA - reteach/reapply/ reassess			
WB 06/10/25	8CP The periodic table	8	Conservation of mass	SPARX Science homework: Digestion	https://continuityoak.org.uk/Lessons?r=1332	Apply conservation of mass ideas to physical and chemical changes Plot secondary data and draw a line of best fit Describe and explain patterns in data Use secondary data to check for reproducibility
	8CP The periodic table	9	Group 1		https://continuityoak.org.uk/Lessons?r=1334	Describe some of the properties of group 1 elements Describe trends in physical and chemical properties of group 1 Write word (or symbol) equations to represent their reaction with oxygen and water
	8CP The periodic table	10	Group 7		https://continuityoak.org.uk/Lessons?r=1335 https://continuityoak.org.uk/Lessons?r=1336	Describe trends in physical properties of group 7 Describe the trend in reactivity of group 7 Write word equations to represent their reaction with iron
	8CP The periodic table	11	End of unit test			
WB 13/10/25	8PL Light and sound	1	Light waves	SPARX Science homework: The periodic table	https://continuityoak.org.uk/Lessons?r=1307	Describe properties of light and light waves Describe what happens when light meets a surface Draw accurate light ray diagrams to illustrate light travelling and meeting different surfaces
	8PL Light and sound	2	Electrical and chemical effects of light		https://continuityoak.org.uk/Lessons?r=1308	Describe different effects on surfaces of energy transfers by light Identify variables to change, measure and control to test a hypothesis Draw a table for repeatable results and Process results appropriately and use them to write a conclusion
	8PL Light and sound	3	Reflection		https://continuityoak.org.uk/Lessons?r=1309	Label a diagram showing reflection from a mirror Identify variables to change, measure and control to test a given hypothesis Make and record readings and use them to form a conclusion Process secondary data appropriately and use it to check for reproducibility
	8CP The periodic table	12	End of unit reteach/ reapply/reassess lesson			
WB 20/10/25	8PL Light and sound	4	Reflected images	SPARX Science homework: The periodic table	https://continuityoak.org.uk/Lessons?r=1310	Draw accurate diagrams to represent how we see images in a mirror Describe properties of reflected images Describe and explain specular and diffuse reflections
	8PL Light and sound	5	Refraction		https://continuityoak.org.uk/Lessons?r=1311	Describe how refraction takes place using key words and phrases. Draw the pathway that light takes through a glass block Draw light ray diagrams to show how refraction can affect how we see objects
	8PL Light and sound	6	Vision		https://continuityoak.org.uk/Lessons?r=1312	Label the parts of the eye Use ray diagrams to show how images are formed in pinhole cameras and the eye Describe how an image is formed and how we see
	8PL Light and sound	7	Focusing		https://continuityoak.org.uk/Lessons?r=1313	Safely carry out an eye dissection Describe how the eye focuses on near and far objects Explain the cause of long and short sightedness and how this can be corrected
WB 27/10/25 October half term						
WB 03/11/25	8PL Light and sound	8	Colour	SPARX Science homework: The periodic table	https://continuityoak.org.uk/Lessons?r=1314	Describe the 'visible spectrum' Relate the colours of the visible spectrum to wavelength Explain why we see objects as a particular colour.
	8PL Light and sound	9	Filters		https://continuityoak.org.uk/Lessons?r=1315	Describe and explain how coloured filters change white light. Predict the colours of coloured objects in coloured light
	8PL Light and sound	10	Infrared radiation		https://continuityoak.org.uk/Lessons?r=1110	Describe heat transfer by radiation State the surfaces that are the best at absorbing and emitting radiation Explain everyday observations using an understanding of absorption and emission of radiation
	8PL Light and sound	11	Radiation investigation			Write a hypothesis to test based on information about radiation Identify variables to change, measure and control to test the hypothesis Draw conclusions from evidence collected Identify sources of error in the investigation and suggest improvements
WB 10/11/25	8PL Light and sound	12	MUA - reteach/reapply/ reassess	SPARX Science homework: Light waves		
	8PL Light and sound	13	Waves		https://continuityoak.org.uk/Lessons?r=1433 https://continuityoak.org.uk/Lessons?r=1434	Label the main features of a wave diagram Compare light and sound waves Describe what happens when waves meet
	8PL Light and sound	14	Sound waves		https://continuityoak.org.uk/Lessons?r=1435 https://continuityoak.org.uk/Lessons?r=1436	Describe how pitch and loudness of sounds are determined Interpret oscilloscope traces Describe what happens when sound meets a surface
	8PL Light and sound	15	How fast does sound travel?		https://continuityoak.org.uk/Lessons?r=1437	Calculate the speed of sound in air, identifying anomalies Calculate uncertainty in the results and suggest sources of error Describe how and explain why the speed of sound varies in different media in terms of particles
WB 17/11/25	8PL Light and sound	16	Hearing in humans and other animals	SPARX Science homework: Light waves	https://continuityoak.org.uk/Lessons?r=1439 https://continuityoak.org.uk/Lessons?r=1440	Describe how sounds are heard Explain what is meant by 'hearing range' and how this differs with age and in different animals Measure the loudness of common sounds using appropriate units
	8PL Light and sound	17	Ultrasound			Describe what is meant by ultrasound Describe uses of ultrasound Explain how the sound waves are used in given contexts
	8PL Light and sound	18	End of unit test			
	7BL Life cycles	1	Heredity		https://continuityoak.org.uk/Lessons?r=1455	State when reproduction happens and describe the role of the genome in reproduction Define heredity and explain why offspring usually look similar but not identical to their parents Explain why offspring usually look similar but not identical to each other
WB 24/11/25	7BL Life cycles	2	The genome	SPARX Science homework: Sound waves	https://continuityoak.org.uk/Lessons?r=1283	Identify and describe DNA, chromosomes and genes and their relationship to the genome Describe the structure of DNA Describe how the discovery of DNA is an example of how new hypotheses can emerge from data collected across scientific methods
	7BL Life cycles	3	Variation		https://continuityoak.org.uk/Lessons?r=1131	Define species Define variation and describe types of variation within a species, with examples State which causes of variation can be inherited and why variation within a species is important
	8PL Light and sound	19	End of unit reteach/ reapply/reassess lesson			
	7BL Life cycles	4	Discontinuous and continuous variation		https://continuityoak.org.uk/Lessons?r=1131	Define and give examples of discontinuous and continuous variation Collect and classify data on variation
WB 01/12/25	7BL Life cycles	5	Presenting data on variation	SPARX Science homework: Sound waves	https://continuityoak.org.uk/Lessons?r=1132	State how different types of data are presented Display data using a bar chart Draw conclusions and assess if observations are within expected values
	7BL Life cycles	6	Growth and development		https://continuityoak.org.uk/Lessons?r=1124	Define growth in multicellular organisms Describe how new cells are made in growing multicellular organisms Describe what happens as an organism develops
	7BL Life cycles	7	Sexual reproduction in humans		https://continuityoak.org.uk/Lessons?r=1120 https://continuityoak.org.uk/Lessons?r=1121	State the role of the sperm and egg in sexual reproduction Describe adaptations of the male and female gametes for sexual reproduction Explain why sexual reproduction leads to genetic variation
	7BL Life cycles	8	Male and female reproductive systems		https://continuityoak.org.uk/Lessons?r=1120	Identify and describe the functions of the structures in the male reproductive system Identify and describe the functions of the structures in the female reproductive system Describe how the male and female reproductive systems work together to produce offspring
WB 08/12/25	7BL Life cycles	9	Adolescence and puberty in humans	SPARX Science homework: Inheritance	https://continuityoak.org.uk/Lessons?r=1125	Define adolescence and puberty in humans Describe changes that take place in human males and females during puberty State what causes puberty in humans
	7BL Life cycles	10	Fertilisation and embryo formation		https://continuityoak.org.uk/Lessons?r=1120 https://continuityoak.org.uk/Lessons?r=1122	Describe where fertilisation takes place in humans and explain its importance for chromosome numbers. Describe implantation and how an embryo is formed after fertilisation
	7BL Life cycles	11	Menstrual cycle and contraception		https://continuityoak.org.uk/Lessons?r=1125	State the purpose of the menstrual cycle and its approximate length Describe the main stages of the menstrual cycle Describe how contraception can be used (additional)
	7BL Life cycles	12	7BL MUA reteach/reapply/ reassess			
WB 15/12/25	7BL Life cycles	13	Pregnancy and foetal development	SPARX Science homework: Variation	https://continuityoak.org.uk/Lessons?r=1122	Describe human gestation and foetal development Describe the function of the placenta, umbilical cord and amniotic fluid Explain how the foetus gets its nutrition and oxygen, and how waste is excreted
	7BL Life cycles	14	Birth		https://continuityoak.org.uk/Lessons?r=1120	Use data to describe the impact of smoking and alcohol on foetal development Describe the human birth process
	7BL Life cycles	15	Flowers and pollination		https://continuityoak.org.uk/Lessons?r=1120	Identify and describe the function of the parts of the flower, including gametes Describe pollination and the ways it can happen
						End of term (No lesson)
WB 22/12/25 Christmas holidays						
WB 05/01/26	7BL Life cycles	16	Fertilisation and germination	SPARX Science homework: Human reproduction	https://continuityoak.org.uk/Lessons?r=1120	Describe fertilisation in plants Describe the formation of seeds and fruit Describe germination and state what plants need for this process
	7BL Life cycles	17	Seed dispersal		https://continuityoak.org.uk/Lessons?r=1120 https://continuityoak.org.uk/Lessons?r=1120	Describe how seeds are adapted for dispersal Identify variables to change, measure and control Process data collected and use it to describe a relationship
	7BL Life cycles	18	Asexual reproduction		https://continuityoak.org.uk/Lessons?r=1282	Describe asexual reproduction in plants Describe asexual reproduction in unicellular organisms Compare sexual and asexual reproduction
	7BL Life cycles	19	7BL End of unit reteach/ reapply/reassess lesson			
WB 12/01/26	8PS Space	1	Earth as a planet	SPARX Science homework: Gestation and birth in humans	https://continuityoak.org.uk/Lessons?r=1317 https://continuityoak.org.uk/Lessons?r=1321	Describe the effects of forces of gravity on Earth Explain how orbit is achieved Describe and explain seasonal differences on Earth
	8PS Space	2	Solar system			Describe and explain how the orbits of the planets vary Calculate weight, mass and gravitational field strength on Earth and other planets, rounding answers to whole numbers Describe comets, asteroids and meteors
	8PS Space	3	Stars			Explain why stars emit light Name and describe the main stages of the life and death of a star Explain how elements are made
	7BL Life cycles	20	7BL End of unit test Reteach/Reapply/ reasses			
WB 19/01/26	8PS Space	4	Universe	SPARX Science homework: Plant reproduction	https://continuityoak.org.uk/Lessons?r=1320	Define a light year and explain why they are used Describe how theories about the universe have changed over time Describe the Big Bang theory
	8PS Space	5	Planetary formation			Describe how the solar system formed Describe the formation of Earth Describe some of the features of Earth when first formed
	8PS Space	6	MUA - reteach/reapply/ reassess			
	8CM Materials and the Earth	1	Structure of the Earth		https://continuityoak.org.uk/Lessons?r=2101	Label a diagram showing the structure of the Earth and compare the layers in terms of composition, thickness and temperature Explain how the continents move Describe some of the evidence for 'continental drift'
WB 26/01/26	8CM Materials and the Earth	2	Igneous rock formation and properties	SPARX Science homework: Space	https://continuityoak.org.uk/Lessons?r=1363	Describe the formation of intrusive and extrusive igneous rocks Explain the link between cooling rate and crystal sizes Describe the properties of igneous rock
	8CM Materials and the Earth	3	Sedimentary rock formation and properties		https://continuityoak.org.uk/Lessons?r=1364	Describe the weathering, transportation and deposition of rocks at the Earth's surface Describe the formation of sedimentary rocks Describe the properties of sedimentary rocks
	8CM Materials and the Earth	4	Metamorphic rock formation and properties		https://continuityoak.org.uk/Lessons?r=1365	Describe the formation of metamorphic rocks Describe the properties of metamorphic rocks Apply knowledge of all 3 rock type formations to questions on the rock cycle
	8CM Materials and the Earth	5	Fossils		https://continuityoak.org.uk/Lessons?r=1367	Describe how fossils are formed Explain how fossils move to the surface of the Earth Interpret diagrams to identify the relative age of fossils
WB 02/02/26	8CM Materials and the Earth	6	Fossil fuels	SPARX Science homework: Space	https://continuityoak.org.uk/Lessons?r=1368	Describe the composition of crude oil using key words Draw the first 5 alkanes Evaluate the extraction and use of crude oil
	8CM Materials and the Earth	7	MUA - reteach/reapply/ reassess			
	8CM Materials and the Earth	8	Atmosphere changes		https://continuityoak.org.uk/Lessons?r=1370	Compare the earth's early atmosphere to the atmosphere today Explain why carbon dioxide and oxygen levels changed in Earth's early history Describe the main processes involved in the cycling of carbon
	8CM Materials and the Earth	9	The Greenhouse effect & climate change		https://continuityoak.org.uk/Lessons?r=1372 Https://continuityoak.org.uk/Lessons?r=2098	Describe the greenhouse effect Explain the significance of an increased greenhouse effect Describe some of the potential consequences of climate change
WB 09/02/26	8CM Materials and the Earth	10	Resources and recycling	SPARX Science homework: Structure of the Earth	https://continuityoak.org.uk/Lessons?r=1373 https://continuityoak.org.uk/Lessons?r=1374	Describe some of the properties of ceramics and polymers Evaluate the ways of disposing of plastics once they've been used Interpret secondary data
	8CM Materials and the Earth	11	Composites		https://continuityoak.org.uk/Lessons?r=1375	Describe some examples of composites Make a sample of concrete Plot and interpret secondary data Suggest how to amend an investigation to improve the accuracy of a value
	8CM Materials and the Earth	12	End of unit test			
	8PM Matter	1	Particle theory		https://continuityoak.org.uk/Lessons?r=1458 https://continuityoak.org.uk/Lessons?r=1459	Describe the arrangement and motion of particles in a solid, liquid and gas Define diffusion in terms of particle concentration and explain effect of temperature on diffusion Explain changes of state in terms of particles
WB 16/02/26 February half term						
WB 23/02/26	8CM Materials and the Earth	13	End of unit reteach/ reapply/reassess lesson	SPARX Science homework: The atmosphere		
	8PM Matter	2	Density		https://continuityoak.org.uk/Lessons?r=1460	Explain observations using particle model and density Compare densities and predict if objects will float or sink Calculate the density of regular objects
	8PM Matter	3	Diffusion & Brownian motion		https://continuityoak.org.uk/Lessons?r=1461	Define diffusion and Brownian motion Describe how diffusion affects a substance in solution or the air Explain why diffusion is passive using Brownian motion
	8PM Matter	4	Pressure in liquids		https://continuityoak.org.uk/Lessons?r=1464	Describe the action of pressure in liquids and the cartesian diver Describe how the pressure changes as you go deeper in a liquid Calculate pressure and forces in hydraulic systems
WB 02/03/26	8PM Matter	5	Upthrust, floating & sinking	SPARX Science homework: Global warming and climate change	https://continuityoak.org.uk/Lessons?r=1463 https://continuityoak.org.uk/Lessons?r=1465	Describe the effect of upthrust on the weight of objects Explain why objects float in terms of resultant forces Explain how upthrust can vary in water
	8PM Matter	6	MUA - reteach/reapply/ reassess			
	8PM Matter	7	Atmospheric pressure		https://continuityoak.org.uk/Lessons?r=1466	Define atmosphere and describe how atmospheric pressure is caused Explain how changes in atmospheric pressure can happen and what the effects are Calculate percentage change
	8PM Matter	8	End of unit test			
WB 09/03/26	9BE Ecological relationships and classfication	1	Food chains and webs	SPARX Science homework: Density	https://continuityoak.org.uk/Lessons?r=1185	Interpret food webs Describe ways in which animals and plants are interdependent Draw and interpret pyramids of number
	9BE Ecological relationships and classfication	2	Decay		https://continuityoak.org.uk/Lessons?r=1188	State the best conditions for decay Explain the importance of decay. Describe what causes decay Explain the design features of a compost bin
	9BE Ecological relationships and classfication	3	Impacts on food webs		https://continuityoak.org.uk/Lessons?r=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
	8PM Matter	9	End of unit reteach/ reapply/reassess lesson			
WB 16/03/26	9BE Ecological relationships and classfication	4	Estimating populations	SPARX Science homework: Density	https://continuityoak.org.uk/Lessons?r=1195	Make and record measurements to estimate a population Process results appropriately and compare with given values Suggest how to improve accuracy
	9BE Ecological relationships and classfication	5	Fieldwork		https://continuityoak.org.uk/Lessons?r=1193	Make and record measurements to estimate the population of daisies Process the results appropriately Apply learning to process secondary data
	9BE Ecological relationships and classfication	6	Classifying living organisms		https://continuityoak.org.uk/Lessons?r=1198	Name the main features of the five chordate groups Classify organisms given appropriate information Explain the basis of the Linnaeus classification
	9BE Ecological relationships and classfication	7	Adaptation		https://continuityoak.org.uk/Lessons?r=1200	Suggest things organisms may compete for Describe ways in which organisms are adapted to be better competitors Explain how these adaptations help them survive in given conditions
WB 23/03/26	9BE Ecological relationships and classfication	8	Natural selection	SPARX Science homework: Food chains and webs	https://continuityoak.org.uk/Lessons?r=1202	Describe ways in which organisms may vary within a species Explain why some organisms within a species are better adapted to their environment Explain why genetic variation within a species can drive natural selection
	9BE Ecological relationships and classfication	9	9BE MUA - reteach/ reapply/reassess			
	9BE Ecological relationships and classfication	10	Evidence for evolution and extinction		https://continuityoak.org.uk/Lessons?r=1203	Describe evidence for evolution Explain how the evidence supports the evolution theory Describe the changes that can lead to extinction
						End of term (No lesson)