

	Half term 1	Half term 2	Half term 3	Half term 4	Half term 5	Half term 6
Year 7 Science	Content delivered: HSW Project: Working scientifically rockets and moon craters Physics The night sky Solar system The moon – heliocentrism Chemistry The particle theory States of matter Changes of state Diffusion	Content delivered: Chemistry Sublimation Solutions Solubility Pure substances and mixtures Biology Levels of organisation Cells Microscopy Specialised cells Diffusion	Content delivered: Biology The skeleton Muscles and joints Physics Food and fuels Renewable and non renewable energy Energy and power	Content delivered: Chemistry Elements Metals & non metals Metals and acids Metals and oxygen Displacement reactions Acids and alkalis Indicators and pH Neutralisation Making salts	Content delivered: Biology Food chains and food webs Ecosystems Ecology Competition Flowers and pollination Fertilisation and germination Seed dispersal Physics Series and parallel circuits Resistance	Content delivered: Physics Current Charging End of year review and recap
Key Words Level 2 Level 3	Independent, dependent, control, hypothesis, prediction, conclusion, evaluation, thrust, acceleration, gravity, solid, liquid, gas, density, kinetic energy, order/ordered, random, melting, freezing, temperature, thermometer, rate	Pure, impure, solvent, solute, solution, objective lens, magnification, eyepiece, microscope slide, nucleus, cell membrane, cell wall, cytoplasm, mitochondria, ribosome, chloroplast, vacuole, micrometre, differentiated, concentration gradient	Tendon, ligament, muscle, joint, antagonistic pair, cartilage, diet, energy, joule, kilojoule, nutrient, atomic, chemical, elastic potential, gravitational potential, kinetic, conservation, nuclear, strain, thermal, transfer, biofuel, coal, electricity, fossil, fuel, renewable, non-renewable, oil, geothermal, hydroelectric, solar, wind turbine	Reversible, irreversible, chemical, physical, element, compound, mixture, metal, non-metal, pH, strength, concentration/concentrated, dilute, oxidation, alkali, displacement, reactive/reactivity, neutralisation, indicator	Ecosystem, habitat, organism, species, energy, predator, prey, consumer, producer, respiration, excretion, herbivore, carnivore, omnivore, stigma, anther, pollination, pollen, pollinator, germination, conductor, insulator, charge, flow, complete circuit, resistance, ohm, voltage, parallel, series	Conductor, insulator, charge, flow, complete circuit, resistance, ohm, voltage, parallel, series
Where previous knowledge has occurred and future development KS2 → KS3 → KS4 → KS5	KS2: Describing the movement of planets in the solar system; explaining day and night KS3: Year 8 Elements and compounds KS4: Year 10 Bonding (C4.2) KS4: Year 11 Space physics (C4.8) KS5: Year 13 Entropy KS5: Year 13 Space	KS2: Dissolving solids in liquids & changes of state KS3: Year 8 Elements and compounds KS4: Year 10 Cells (B1.1) KS4: Year 11 Purity (C4.8) KS5: Y12 Cells	KS2: Human skeleton and muscles KS3: Year 8 Energy KS4: Y10 Energy (P4.1) KS4: Y10 Particle model of matter (P4.3) KS5: Y12 Sliding filament theory	KS2: Describing chemical changes & describing how to recover a substance from a solution KS3: Year 8 Periodic table KS4: Y10 Atomic structure (C4.1) KS4: Y10 Chemical changes (C4.4) KS5: Y13 Acids, bases and buffers	KS2: The role of flowers; constructing & using food chains KS2: Constructing and analysing simple series circuits KS3: Y8 Adaptations KS4: Y10 Electricity (P4.2) KS4: Y11 Ecology (B4.7) KS5: Y12 Ecological relationships	KS2: Comparing how electrical components function KS3: Y8 Electromagnets KS4: Y10 Electricity (P4.2) KS5: Year 12 Electrical circuits
Common Misconceptions	Correct drawing of particles in particle model	That solutes get absorbed by the solution	That bones are solid The older you are the more energy you need	Elements are the smallest thing	The direction of arrows in food chains and food webs Batteries and cells are the same	Earth wires and fuses do the same thing
Literacy	Scientific writing (HSW): project write up NHTW reviews as starter activities	Scientific writing (HSW): Microscopy NHTW reviews as starter activities	Scientific writing (HSW): Burning fuels NHTW reviews as starter activities	Scientific writing (HSW): Making salts NHTW reviews as starter activities	Scientific writing (HSW): Ecology NHTW reviews as starter activities	Scientific writing (HSW): Investigating current NHTW reviews as starter activities
Numeracy	Choosing and drawing appropriate graphs Presenting data using tables	Unit conversions Rearranging formulae	Drawing appropriate graphs Rearranging formulae	Calculating and converting masses	Calculating means Drawing graphs and tables	Drawing graphs and tables
Homework	Completion of kerboodle section quizzes	Completion of kerboodle section quizzes	Completion of kerboodle section quizzes	Completion of kerboodle section quizzes	Completion of kerboodle section quizzes	Completion of kerboodle section quizzes
Assessment this half-term	GL Assessment Unit test for physics	Unit test for chemistry	Unit test for biology Unit test for physics	Unit test for chemistry	Unit test for biology	Unit test for physics End of year test
Career opportunities Employment Links	LIFE SKILLS: Understanding tides and temperatures for changing states EMPLOYMENT: Pharmacist	LIFE SKILLS: Understanding how to separate substances and the roles of cells in the body EMPLOYMENT: Forensic scientist	LIFE SKILLS: Understanding how muscles and joints work & understanding where electricity comes from EMPLOYMENT: Physiotherapist	LIFE SKILLS: Understanding how neutralisation works EMPLOYMENT: Welder	LIFE SKILLS: Understanding the role of conservation EMPLOYMENT: Environmental scientist	LIFE SKILLS: Dangers of electricity EMPLOYMENT: Electrician
Enrichment	REACT roadshow			Nancy Rothwell Award	Visit to Maryport aquarium to review food chains and webs	
Practical activities/HSW	Moon craters Changing states Diffusion	Separation techniques Microscopy	Dissection of trotter or chicken wing Burning fuels	Metals and acids Displacement reactions Testing pH Making salts	Ecology Flower dissection Series and parallel circuits Resistivity	Measuring current
Employability Skills	Aiming high Creativity Leadership Listening Presenting Problem solving Staying positive Literacy Independence Communication Teamwork	Aiming high Creativity Leadership Listening Presenting Problem solving Staying positive Literacy Independence Communication Teamwork	Aiming high Creativity Leadership Listening Presenting Problem solving Staying positive Literacy Independence Communication Teamwork	Aiming high Creativity Leadership Listening Presenting Problem solving Staying positive Literacy Independence Communication Teamwork	Aiming high Creativity Leadership Listening Presenting Problem solving Staying positive Literacy Independence Communication Teamwork	Aiming high Creativity Leadership Listening Presenting Problem solving Staying positive Literacy Independence Communication Teamwork
IT Skills	IT1 & IT2: Appropriate websites and research for homework as well as recall quizzes	IT1 & IT2: Appropriate websites and research for homework as well as recall quizzes	IT1 & IT2: Appropriate websites and research for homework as well as recall quizzes	IT1 & IT2: Appropriate websites and research for homework as well as recall quizzes	IT1 & IT2: Appropriate websites and research for homework as well as recall quizzes	IT1 & IT2: Appropriate websites and research for homework as well as recall quizzes
Notes/developments /standardisation comments						