

Autumn 1	Year 8
	A1/A2/A3/B1/B2/B3
Week 1 (w/b Wed 7 <sup>th</sup> Sep)	Lesson 1-3: Working scientifically - Ecology
Key Words Level 2 Level 3	Independent, dependent, control, hypothesis, prediction, conclusion, evaluation, random, bias Quadrat, biodiversity, transect, qualitative
Common Misconceptions	All species require the exact same conditions for survival
Homework	Kerboodle task suitable to ability of group
Assessment this half-term	3b Energy Test
Career opportunities Employment Links	LIFE SKILLS: Understanding what can impact levels of biodiversity EMPLOYMENT: DEFRA, farming, forestry, Environment Agency
Employability Skills	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
IT Skills	IT1 & IT2: Using google for research and cameras to photograph practical work for final reports
Week 2 (w/b 12 <sup>th</sup> Sep)	Lesson 1-3: Working scientifically - Ecology
Key Words Level 2 Level 3	Independent, dependent, control, hypothesis, prediction, conclusion, evaluation, random, bias Quadrat, biodiversity, transect, qualitative
Common Misconceptions	All species require the exact same conditions for survival
Homework	Kerboodle task suitable to ability of group
Assessment this half-term	3b Energy Test
Career opportunities Employment Links	LIFE SKILLS: Understanding what can impact levels of biodiversity EMPLOYMENT: DEFRA, farming, forestry, Environment Agency
Employability Skills	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
IT Skills	IT1 & IT2: Using google for research and cameras to photograph practical work for final reports
Week 3 (w/b 19 <sup>th</sup> Sep)	Lesson 1-3: Working scientifically - Ecology
Key Words Level 2 Level 3	Independent, dependent, control, hypothesis, prediction, conclusion, evaluation, random, bias Quadrat, biodiversity, transect, qualitative
Common Misconceptions	All species require the exact same conditions for survival
Homework	Kerboodle task suitable to ability of group
Assessment this half-term	3b Energy Test
Career opportunities Employment Links	LIFE SKILLS: Understanding what can impact levels of biodiversity EMPLOYMENT: DEFRA, farming, forestry, Environment Agency
Employability Skills	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
IT Skills	IT1 & IT2: Using google for research and cameras to photograph practical work for final reports
Week 4 (w/b 26 <sup>th</sup> Sep)	Lesson 1: 3.3.1 – Work, Energy, Machines; levers, pulleys, see-saws Lesson 2: 3.3.1 - Work, Energy, Machines; $W = Fxd$ Lesson 3: 3.3.1 - Work, Energy, Machines; $W = Fxd$

Key Words Level 2 Level 3	Identify, control, explain, compare Work, lever, gear, force, Newton
Common Misconceptions	For lesson 2/3 ensure pupils set calculations out correctly (State equation, state calculation, state answer with unit).
Homework	Kerboodle task suitable to ability of group.
Assessment this half-term	3b Energy Test
Career opportunities Employment Links	LIFE SKILLS: Understand how to create levers to move objects EMPLOYMENT: <a href="https://www.iop.org/infinity-and-beyond-space-system-engineer">https://www.iop.org/infinity-and-beyond-space-system-engineer</a>
Employability Skills	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
IT Skills	IT2: Kerboodle homework
<b>Week 5 (w/b 3<sup>rd</sup> Oct)</b>	Lesson 1: 3.4.1 – Energy & Temp Lesson 2: 3.4.2 - Energy Transfer; Conduction Lesson 3: 3.4.2 - Energy Transfer; Convection
Key Words Level 2 Level 3	Identify, control, explain, compare Radiation, conduction, convection, insulation, diffusion, thermometer, Energy, Joule, Celsius, Kelvin
Common Misconceptions	Radiation being dangerous (it's just a form of energy transfer). Insulation keeps the cold in (it really keeps the heat out). Temperature and internal energy are the same (they're not)
Homework	Kerboodle task suitable to ability of group.
Assessment this half-term	3b Energy Test
Career opportunities Employment Links	LIFE SKILLS: Understanding how radiators and boilers work EMPLOYMENT: <a href="https://www.iop.org/light-fantastic-senior-programme-manager-photonics">https://www.iop.org/light-fantastic-senior-programme-manager-photonics</a>
Employability Skills	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
IT Skills	IT2: Kerboodle homework
<b>Week 6 (w/b 10<sup>th</sup> Oct)</b>	Lesson 1: 3.4.3 – Energy Transfer; Radiation Lesson 2: 3.4.3 – Energy Transfer; Insulation experiment Lesson 3: 3.4.3 – Energy Transfer; Insulation experiment
Key Words Level 2 Level 3	Identify, control, explain, compare Radiation, conduction, convection, insulation, diffusion, thermometer, Energy, Joule, Celsius, Kelvin
Common Misconceptions	Radiation being dangerous (it's just a form of energy transfer). Insulation keeps the cold in (it really keeps the heat out). Temperature and internal energy are the same (they're not)
Homework	Kerboodle task suitable to ability of group.
Assessment this half-term	3b Energy Test
Career opportunities Employment Links	LIFE SKILLS: Understand how to keep things warm EMPLOYMENT: <a href="https://www.iop.org/light-fantastic-senior-programme-manager-photonics">https://www.iop.org/light-fantastic-senior-programme-manager-photonics</a>
Employability Skills	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
IT Skills	IT2: Kerboodle homework
<b>Week 7 (w/b 17<sup>th</sup> Oct)</b>	Lesson 1: 3b Energy Test Lesson 2: Feedback Lesson 3: Exemplars

Key Words Level 2 Level 3	
Common Misconceptions	Identified from assessment
Homework	Kerboodle task suitable to ability of group.
Assessment this half-term	3b Energy Test
Career opportunities Employment Links	LIFE SKILLS: Resilience EMPLOYMENT: <a href="https://www.iop.org/careers-physics/your-future-with-physics/career-paths/outreach-diversity">https://www.iop.org/careers-physics/your-future-with-physics/career-paths/outreach-diversity</a>
Employability Skills	Aiming high    Literacy    Creativity    Numeracy    Leadership    Independence    Listening    Communication    Presenting    Teamwork Problem solving    Staying positive
IT Skills	IT2: Kerboodle homework

Autumn 2	Year 8 A1/A2/A3/B1/B2/B3
Week 8 (w/b 31 <sup>st</sup> Oct)	Lesson 1: 7.1.1 Structure of the Earth Lesson 2: 7.1.2 Sedimentary Lesson 3: 7.1.3 Igneous & Metamorphic
Key Words Level 2 Level 3	Identify, describe, explain Mantle, crust, inner/outer core, diameter, radius, crystal/crystallisation, grain size, layers, fossils, sedimentation, extrusive, intrusive, weathering, erosion, deposition, transportation
Common Misconceptions	Creationism v big bang
Homework	Kerboodle task suitable to ability of group.
Assessment this half-term	W/b 28 <sup>th</sup> Nov – 7b Earth Test
Career opportunities Employment Links	LIFE SKILLS: Understanding how the Earth was formed EMPLOYMENT: Geologist
Employability Skills	Aiming high    Literacy    Creativity    Numeracy    Leadership    Independence    Listening    Communication    Presenting    Teamwork Problem solving    Staying positive
IT Skills	IT2: Kerboodle homework
Week 9 (w/b 7 <sup>th</sup> Nov)	Lesson 1: 7.1.4 The Rock Cycle Lesson 2: 7.1.4 The Rock Cycle Lesson 3: 7.1.5 Ceramics
Key Words Level 2 Level 3	Identify, describe, explain Mantle, crust, inner/outer core, diameter, radius, crystal/crystallisation, grain size, layers, fossils, sedimentation, extrusive, intrusive, weathering, erosion, deposition, transportation
Common Misconceptions	Fossils are found in all rocks
Homework	Kerboodle task suitable to ability of group.
Assessment this half-term	W/b 28 <sup>th</sup> Nov – 7b Earth Test
Career opportunities Employment Links	LIFE SKILLS: Understanding how to make ceramics EMPLOYMENT: Geologist
Employability Skills	Aiming high    Literacy    Creativity    Numeracy    Leadership    Independence    Listening    Communication    Presenting    Teamwork Problem solving    Staying positive
IT Skills	IT2: Kerboodle homework
Week 10 (w/b 14 <sup>th</sup> Nov)	Lesson 1: 7.3.1 global Warming Lesson 2: 7.3.1 Global Warming

	Lesson 3: 7.3.2 The Carbon Cycle
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain Carbon Dioxide, radiation, wavelength, pollution, renewable, non-renewable
<b>Common Misconceptions</b>	Climate sceptics
<b>Homework</b>	Kerboodle task suitable to ability of group.
<b>Assessment this half-term</b>	W/b 28 <sup>th</sup> Nov – 7b Earth Test
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Understanding the causes and effects of global warming EMPLOYMENT: Climatologist
<b>Employability Skills</b>	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
<b>IT Skills</b>	IT2: Kerboodle homework
<b>Week 11</b> (w/b 21 <sup>st</sup> Nov)	
	Lesson 1: 7.3.3 Climate Change Lesson 2: 7.4.1 Extracting Metals Lesson 3: 7.4.2 Recycling
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain Carbon Dioxide, radiation, wavelength, pollution, renewable, non-renewable, oxidation, reduction, reduce, reuse, recycle
<b>Common Misconceptions</b>	Climate sceptics
<b>Homework</b>	Kerboodle task suitable to ability of group.
<b>Assessment this half-term</b>	W/b 28 <sup>th</sup> Nov – 7b Earth Test
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Understanding what and how to recycle EMPLOYMENT: Climatologist
<b>Employability Skills</b>	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
<b>IT Skills</b>	IT2: Kerboodle homework
<b>Notes/developments</b> <b>/standardisation comments</b>	Lesson 1: Lesson 2: Lesson 3: Earth and atmosphere: Earth as a source of limited resources and the efficacy of recycling
<b>Week 12</b> (w/b 28 <sup>th</sup> Nov)	
	Lesson 1: 7b Earth Test Lesson 2: Feedback/Exemplars Lesson 3: Feedback/Exemplars
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain, compare, evaluate
<b>Common Misconceptions</b>	Identified from assessment
<b>Homework</b>	Kerboodle task suitable to ability of group.
<b>Assessment this half-term</b>	W/b 28 <sup>th</sup> Nov – 7b Earth Test
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Resilience EMPLOYMENT: Climatologist
<b>Employability Skills</b>	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
<b>IT Skills</b>	IT2: Kerboodle homework

<b>Week 13</b> (w/b 5 <sup>th</sup> Dec)	Lesson 1: 9.1.1 Food chains and food webs Lesson 2: 9.1.2 Disruption to food chains and webs Lesson 3: 9.2.1 Flowers and pollination
<b>Key Words</b> <b>Level 2</b> <b>Level 3</b>	Identify, describe, explain, relationship Organism, species, herbivore, carnivore, omnivore, predator, prey, pollination, bioaccumulation, population
<b>Common Misconceptions</b>	Students often draw the arrows in the wrong direction
<b>Homework</b>	Kerboodle task suitable to ability of group
<b>Assessment this half-term</b>	6 mark question in class
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Understanding how food webs can be affected by hunting or invasive species EMPLOYMENT: Horticulture, agriculture, zoologist
<b>Employability Skills</b>	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
<b>IT Skills</b>	<b>IT2:</b> Kerboodle homework
<b>Notes/developments</b> <b>/standardisation comments</b>	
<b>Week 14</b> (w/b 12 <sup>th</sup> Dec)	Lesson 1: 9.2.1 Flowers and pollination – plant dissection Lesson 2 & 3: 9.2.2 Fertilisation and germination – review seedlings practical
<b>Key Words</b> <b>Level 2</b> <b>Level 3</b>	Identify, describe, explain Fertilisation, germination, pollination, anther, stigma, pollen, ovum
<b>Common Misconceptions</b>	That pollination and germination is the same thing
<b>Homework</b>	Kerboodle task suitable to ability of group
<b>Assessment this half-term</b>	6 mark question in class
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Understanding how plants reproduce EMPLOYMENT: Horticulturist, agriculture, forestry
<b>Employability Skills</b>	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
<b>IT Skills</b>	<b>IT2:</b> Kerboodle homework
<b>Week 15</b> (w/b 19 <sup>th</sup> Dec)	Lesson 1: 9.2.3 Seed dispersal Lesson 2: Review section Lesson 3: X
<b>Key Words</b> <b>Level 2</b> <b>Level 3</b>	Identify, describe, explain Reproduction, dispersal, independent variable, dependent variable, control variable
<b>Common Misconceptions</b>	That only wind disperses seeds
<b>Homework</b>	Kerboodle task suitable to ability of group
<b>Assessment this half-term</b>	6 mark question in class
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Understanding how plants reproduce EMPLOYMENT: Horticulturist, agriculture, forestry
<b>Employability Skills</b>	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
<b>IT Skills</b>	<b>IT2:</b> Kerboodle homework

Spring 1	Year 8									
	A1/A2/A3/B1/B2/B3									
<b>Week 16</b> (w/b Wed 4 <sup>th</sup> Jan)	Lesson 1-3: Review plant reproduction and independence									
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain Organism, species, herbivore, carnivore, omnivore, predator, prey, pollination, bioaccumulation, population, fertilisation, germination, pollination, anther, stigma, pollen, ovum									
<b>Common Misconceptions</b>	That plants don't reproduce sexually									
<b>Homework</b>	Kerboodle task suitable to ability of group									
<b>Assessment this half-term</b>	w/b 16 <sup>th</sup> Jan – 9a Independence and plant reproduction (to include Qs from 10a Variation) w/b 6 <sup>th</sup> Feb – 2b Electromagnets test									
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Understanding how plants reproduce EMPLOYMENT: Horticulture, farming, agriculture, forestry									
<b>Employability Skills</b>	Aiming high	Literacy	Creativity	Numeracy	Leadership	Independence	Listening	Communication	Presenting	Teamwork
<b>IT Skills</b>	IT2: Kerboodle homework									
<b>Notes/developments</b> <b>/standardisation comments</b>	* Groups may not have full x3 complement due to mid-week start back									
<b>Week 17</b> (w/b 9 <sup>th</sup> Jan)	Lesson 1: 10.1.1 Variation Lesson 2: 10.1.2 Continuous and discontinuous variation – height v arm span prac Lesson 3: 10.1.3 Adapting to change									
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain Organism, species, herbivore, carnivore, omnivore, predator, prey, pollination, bioaccumulation, population, fertilisation, germination, pollination, anther, stigma, pollen, ovum, variation, genetic, environmental, adaptation									
<b>Common Misconceptions</b>	That variation is either genetic or from the environment not both									
<b>Homework</b>	Kerboodle task suitable to ability of group									
<b>Assessment this half-term</b>	w/b 16 <sup>th</sup> Jan – 9a Independence and plant reproduction (to include Qs from 10a Variation) w/b 6 <sup>th</sup> Feb – 2b Electromagnets test									
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Understanding what makes us different from one another EMPLOYMENT: Evolutionary biologist, behaviourist, zoologist									
<b>Employability Skills</b>	Aiming high	Literacy	Creativity	Numeracy	Leadership	Independence	Listening	Communication	Presenting	Teamwork
<b>IT Skills</b>	IT2: Kerboodle homework									
<b>Week 18</b> (w/b 16 <sup>th</sup> Jan)	Lesson 1: Test Lesson 2: Test feedback Lesson 3: Test feedback									
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain, compare, evaluate Organism, species, herbivore, carnivore, omnivore, predator, prey, pollination, bioaccumulation, population, fertilisation, germination, pollination, anther, stigma, pollen, ovum, variation, genetic, environmental, adaptation									
<b>Common Misconceptions</b>	Identified from assessment									
<b>Homework</b>	Kerboodle task suitable to ability of group									
<b>Assessment this half-term</b>	w/b 16 <sup>th</sup> Jan – 9a Independence and plant reproduction (to include Qs from 10a Variation) w/b 6 <sup>th</sup> Feb – 2b Electromagnets test									
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Resilience and organisation EMPLOYMENT: Research scientist, biomedical scientist, doctor, nurse									
<b>Employability Skills</b>	Aiming high	Literacy	Creativity	Numeracy	Leadership	Independence	Listening	Communication	Presenting	Teamwork
<b>IT Skills</b>	IT2: Kerboodle homework									



<b>Week 19</b> (w/b 23 <sup>rd</sup> Jan)	Lesson 1: 2.4.1 - Electromagnets Lesson 2: 2.4.1 – Electromagnets (Practical) Lesson 3: 2.4.1 - Electromagnets (Analysis and evaluation)
<b>Key Words</b> <b>Level 2</b> <b>Level 3</b>	<b>Identify, describe, explain</b> Attract, gravitational field, magnetic field, mass, non-contact, repel, weight, electric field, electrons, negative, positive, nucleus, static, ammeter, current, parallel, series, voltage, voltmeter, resistance, ohm, motor, electromagnet, motor effect, relay,
<b>Common Misconceptions</b>	Mass and weight are the same. Forcefields stop or block something. Electrons aren't transferred on their own when statically charging an object. Magnets only attract. All metals are magnetic.
<b>Homework</b>	Activelearn task suitable to ability of group.
<b>Assessment this half-term</b>	w/b 6 <sup>th</sup> Feb – 2b Electromagnets test
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Understanding how magnets work and their everyday uses EMPLOYMENT: <a href="https://www.iop.org/careers-physics/your-future-with-physics/career-paths/section-leader">https://www.iop.org/careers-physics/your-future-with-physics/career-paths/section-leader</a>
<b>Employability Skills</b>	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
<b>IT Skills</b>	IT2: Kerboodle homework
<b>Week 20</b> (w/b 30 <sup>th</sup> Jan)	Lesson 1: 2.4.2 - Using Electromagnets (circuit breakers) Lesson 2: 2.4.2 - Using Electromagnets (loudspeakers) Lesson 3: 2.4.2 - Using Electromagnets (electric bell)
<b>Key Words</b> <b>Level 2</b> <b>Level 3</b>	<b>Identify, describe, explain</b> Attract, gravitational field, magnetic field, mass, non-contact, repel, weight, electric field, electrons, negative, positive, nucleus, static, ammeter, current, parallel, series, voltage, voltmeter, resistance, ohm, motor, electromagnet, motor effect, relay,
<b>Common Misconceptions</b>	Mass and weight are the same. Forcefields stop or block something. Electrons aren't transferred on their own when statically charging an object. Magnets only attract. All metals are magnetic.
<b>Homework</b>	Activelearn task suitable to ability of group.
<b>Assessment this half-term</b>	w/b 6 <sup>th</sup> Feb – 2b Electromagnets test
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Understanding how magnets work and their everyday uses EMPLOYMENT: <a href="https://www.iop.org/careers-physics/your-future-with-physics/career-paths/section-leader">https://www.iop.org/careers-physics/your-future-with-physics/career-paths/section-leader</a>
<b>Employability Skills</b>	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
<b>IT Skills</b>	IT2: Kerboodle homework
<b>Week 21</b> (w/b 6 <sup>th</sup> Feb)	Lesson 1: 2b Electromagnets Test Lesson 2: Feedback Lesson 3: Exemplars
<b>Key Words</b> <b>Level 2</b> <b>Level 3</b>	<b>Identify, describe, explain, compare, evaluate</b> Attract, gravitational field, magnetic field, mass, non-contact, repel, weight, electric field, electrons, negative, positive, nucleus, static, ammeter, current, parallel, series, voltage, voltmeter, resistance, ohm, motor, electromagnet, motor effect, relay,
<b>Common Misconceptions</b>	Identified from assessment
<b>Homework</b>	Activelearn task suitable to ability of group.
<b>Assessment this half-term</b>	w/b 6 <sup>th</sup> Feb – 2b Electromagnets test
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: EMPLOYMENT: <a href="https://www.iop.org/careers-physics/your-future-with-physics/career-paths/section-leader">https://www.iop.org/careers-physics/your-future-with-physics/career-paths/section-leader</a>

<b>Employability Skills</b>	Aiming high Problem solving	Literacy Staying positive	Creativity	Numeracy	Leadership	Independence	Listening	Communication	Presenting	Teamwork
<b>IT Skills</b>	IT2: Kerboodle homework									
<b>Week 22</b> (w/b 13 <sup>th</sup> Feb)	Lesson 1: 5.3.1 Elements Lesson 2: 5.3.2 Atoms Lesson 3: 5.3.3 Compounds									
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain Elements, compound, mixture, atom, metal, non-metal, property, Periodic Table									
<b>Common Misconceptions</b>	Be clear about what the subscripts mean in chemical formulae, what a compound is, how to write symbol formulae (Capital letter then lower case, if there's a second in the elements symbol).									
<b>Homework</b>	Kerboodle task suitable to ability of group.									
<b>Assessment this half-term</b>	6 mark in class question									
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Understanding how properties change when different elements are combined together EMPLOYMENT: Physical chemist									
<b>Employability Skills</b>	Aiming high Problem solving	Literacy Staying positive	Creativity	Numeracy	Leadership	Independence	Listening	Communication	Presenting	Teamwork
<b>IT Skills</b>	IT2: Kerboodle homework									

<b>Spring 2</b>	<b>Year 8</b>									
	A1/A2/A3/B1/B2/B3									
<b>Week 23</b> (w/b 27 <sup>th</sup> Feb)	Lesson 1: 5.3.4 Chemical Formulae – Meaning of subscripts in formulae Lesson 2: 5.3.4 Chemical Formulae – symbol equations Lesson 3: 5.3.5 Polymers									
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain Elements, compound, mixture, atom, metal, non-metal, property, Periodic Table, word equation, symbol equation, prefix, suffix									
<b>Common Misconceptions</b>	Be clear about what the subscripts mean in chemical formulae, what a compound is, how to write symbol formulae (Capital letter then lower case, if there's a second in the elements symbol).									
<b>Homework</b>	Kerboodle task suitable to ability of group.									
<b>Assessment this half-term</b>	W/b 20 <sup>th</sup> Mar – 5b Matter Test									
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Understanding how to represent equations with formulae EMPLOYMENT: Physical chemist									
<b>Employability Skills</b>	Aiming high Problem solving	Literacy Staying positive	Creativity	Numeracy	Leadership	Independence	Listening	Communication	Presenting	Teamwork
<b>IT Skills</b>	IT2: Kerboodle homework									
<b>Notes/developments</b> <b>/standardisation comments</b>	Lesson 1-2: Atoms, elements and compounds: chemical symbols and formulae for elements and compounds Lesson 3: Materials: properties of ceramics, polymers and composites (qualitative).									
<b>Week 24</b> (w/b 6 <sup>th</sup> Mar)	Lesson 1: 5.4.1 The Periodic Table -Metals, non-metals, properties Lesson 2: 5.4.1 The Periodic Table – groups/periods Lesson 3: 5.4.2 Group 1									
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain Elements, compound, mixture, atom, metal, non-metal, property, Periodic Table, word equation, symbol equation, prefix, suffix, reactivity, alkali/alkaline, density, oxidation									
<b>Common Misconceptions</b>	Be clear about what the subscripts mean in chemical formulae, what a compound is, how to write symbol formulae (Capital letter then lower case, if there's a second in the elements symbol).									
<b>Homework</b>	Kerboodle task suitable to ability of group.									



Assessment this half-term	W/b 20 <sup>th</sup> Mar – 5b Matter Test
Career opportunities Employment Links	LIFE SKILLS: Understanding the uses for some metals EMPLOYMENT: Physical chemist
Employability Skills	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
IT Skills	IT2: Kerboodle homework
<b>Week 25 (w/b 13<sup>th</sup> Mar)</b>	Lesson 1: 5.4.3 Group 7 Lesson 2: 5.4.3 Group 7 – displacement reactions, equation writing, bit of balancing practice Lesson 3: 5.4.4 Group 0
Key Words Level 2 Level 3	Identify, describe, explain Elements, compound, mixture, atom, metal, non-metal, property, Periodic Table, word equation, symbol equation, prefix, suffix, reactivity, alkali/alkaline, density, oxidation, halogen, noble gas, displacement
Common Misconceptions	Be clear about what the subscripts mean in chemical formulae, what a compound is, how to write symbol formulae (Capital letter then lower case, if there's a second in the elements symbol).
Homework	Kerboodle task suitable to ability of group.
Assessment this half-term	W/b 20 <sup>th</sup> Mar – 5b Matter Test
Career opportunities Employment Links	LIFE SKILLS: Understanding why elements react in a certain way EMPLOYMENT: Physical chemist
Employability Skills	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
IT Skills	IT2: Kerboodle homework
<b>Week 26 (w/b 20<sup>th</sup> Mar)</b>	Lesson 1: 5b Matter Test Lesson 2: Feedback/Exemplars Lesson 3: Feedback/Exemplars
Key Words Level 2 Level 3	Identify, describe, explain Elements, compound, mixture, atom, metal, non-metal, property, Periodic Table, word equation, symbol equation, prefix, suffix, reactivity, alkali/alkaline, density, oxidation, halogen, noble gas, displacement
Common Misconceptions	Identified from assessment
Homework	Kerboodle task suitable to ability of group.
Assessment this half-term	W/b 20 <sup>th</sup> Mar – 5b Matter Test
Career opportunities Employment Links	LIFE SKILLS: Resilience EMPLOYMENT: Research scientist
Employability Skills	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
IT Skills	IT2: Kerboodle homework
<b>Week 27 (w/b 27<sup>th</sup> Mar)</b>	Lesson 1: 8.3.1 Gas exchange – Limewater and carbon dioxide prac Lesson 2: 8.3.2 Breathing – Bell jar demo & peak flow meters prac Lesson 3: 8.3.3 Drugs
Key Words Level 2 Level 3	Identify, describe, explain Oxygen, carbon dioxide, lung, bronchi, trachea, alveoli, inhalation, exhalation, ventilation, breathing, medicinal, recreational
Common Misconceptions	That breathing and respiration are the same thing
Homework	Kerboodle task suitable to ability of group
Assessment this half-term	6 mark in class question
Career opportunities Employment Links	LIFE SKILLS: Understanding how gases are exchanged in the lungs EMPLOYMENT: Asthma nurse, personal trainer
Employability Skills	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
IT Skills	IT2: Kerboodle homework

Summer 1	Year 8									
	A1/A2/A3/B1/B2/B3									
<b>Week 28</b> (w/b 17 <sup>th</sup> Apr)	Lesson 1: 8.3.4 - Alcohol Lesson 2: 8.3.5 - Smoking Lesson 3: 8.4.1 - Nutrients									
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain Nicotine, depressant, deficiency, Benedicts reagent, biuret, ethanol, malnutrition									
<b>Common Misconceptions</b>	That drinking and smoking at a young age doesn't affect the body									
<b>Homework</b>	Kerboodle task suitable to ability of group									
<b>Assessment this half-term</b>	w/b 8 <sup>th</sup> May – 8b digestion and breathing test									
<b>Career opportunities</b>	LIFE SKILLS: Understanding the effects of smoking and alcohol on the body									
<b>Employment Links</b>	EMPLOYMENT: Counsellor, social worker, nurse									
<b>Employability Skills</b>	Aiming high	Literacy	Creativity	Numeracy	Leadership	Independence	Listening	Communication	Presenting	Teamwork
<b>IT Skills</b>	IT2: Kerboodle homework									
<b>Week 29</b> (w/b 24 <sup>th</sup> Apr)	Lesson 1: 8.4.2 – Food tests Lesson 2: 8.4.2 – Food tests Lesson 3: 8.4.3 – Unhealthy diets									
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain Deficiency, Benedicts reagent, biuret, ethanol, malnutrition, digestion, oesophagus, pancreas, intestine, enzyme, denature, amylase, protease, lipase, active site, combustion									
<b>Common Misconceptions</b>	That unhealthy diets only lead to obesity									
<b>Homework</b>	Kerboodle task suitable to ability of group									
<b>Assessment this half-term</b>	w/b 8 <sup>th</sup> May – 8b digestion and breathing test									
<b>Career opportunities</b>	LIFE SKILLS: Understanding what food groups are in different foods									
<b>Employment Links</b>	EMPLOYMENT: Food developer									
<b>Employability Skills</b>	Aiming high	Literacy	Creativity	Numeracy	Leadership	Independence	Listening	Communication	Presenting	Teamwork
<b>IT Skills</b>	IT2: Kerboodle homework									
<b>Week 30</b> (w/b Tues 2 <sup>nd</sup> May)	Lesson 1: 8.4.4 – Digestive system Lesson 2: 8.4.5 – Bacteria and enzymes in digestion Lesson 3: 8.4.5 – Bacteria and enzymes in digestion									
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain Deficiency, Benedicts reagent, biuret, ethanol, malnutrition, digestion, oesophagus, pancreas, intestine, enzyme, denature, amylase, protease, lipase, active site, combustion									
<b>Common Misconceptions</b>	That all bacteria have a negative impact									
<b>Homework</b>	Kerboodle task suitable to ability of group									
<b>Assessment this half-term</b>	w/b 8 <sup>th</sup> May – 8b digestion and breathing test									
<b>Career opportunities</b>	LIFE SKILLS: Understanding how the digestive system works									
<b>Employment Links</b>	EMPLOYMENT: Dietician, gastric surgeon									
<b>Employability Skills</b>	Aiming high	Literacy	Creativity	Numeracy	Leadership	Independence	Listening	Communication	Presenting	Teamwork
<b>IT Skills</b>	IT2: Kerboodle homework									
<b>Week 31</b> (w/b 8 <sup>th</sup> May)	Lesson 1: 8b – Digestion and breathing test Lesson 2: Exemplars Lesson 3: Feedback									
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain, compare, evaluate Nicotine, depressant, deficiency, Benedicts reagent, biuret, ethanol, malnutrition, digestion, oesophagus, pancreas, intestine, enzyme, denature, amylase, protease, lipase, active site, combustion									
<b>Common Misconceptions</b>	Identified from assessment									
<b>Homework</b>	Kerboodle task suitable to ability of group									
<b>Assessment this half-term</b>	w/b 8 <sup>th</sup> May – 8b digestion and breathing test									

<b>Career opportunities</b>	LIFE SKILLS: Resilience and organisation
<b>Employment Links</b>	EMPLOYMENT: Research scientist
<b>Employability Skills</b>	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
<b>IT Skills</b>	IT2: Kerboodle homework
<b>Week 32</b> (w/b 15 <sup>th</sup> May)	Lesson 1: 4.1.1 Sound Waves and Speed Lesson 2: 4.1.2 Loudness and Amplitude Lesson 3: 4.1.3 Frequency and Pitch - oscilloscope
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain Oscilloscope, frequency, amplitude, pitch, wavelength, period
<b>Common Misconceptions</b>	Relationship between frequency, period and wavelength
<b>Homework</b>	Kerboodle task suitable to ability of group.
<b>Assessment this half-term</b>	6 mark in class question
<b>Career opportunities</b>	LIFE SKILLS: Hearing is easily damaged, how to take care of it
<b>Employment Links</b>	EMPLOYMENT: Audiologist
<b>Employability Skills</b>	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
<b>IT Skills</b>	IT2: Kerboodle homework
<b>Week 33</b> (w/b 22 <sup>nd</sup> May)	Lesson 1: 4.1.3 Frequency and Pitch – calculation of frequency Lesson 2: 4.1.4 – The ear and hearing - oscilloscope Lesson 3: 4.1.4 – ear diagram and functions of parts thereof
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain Oscilloscope, frequency, amplitude, pitch, wavelength, period
<b>Common Misconceptions</b>	Relationship between frequency, period and wavelength
<b>Homework</b>	Kerboodle task suitable to ability of group.
<b>Assessment this half-term</b>	6 mark in class question
<b>Career opportunities</b>	LIFE SKILLS: Hearing is easily damaged, how to take care of it
<b>Employment Links</b>	EMPLOYMENT: Audiologist
<b>Employability Skills</b>	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
<b>IT Skills</b>	IT2: Kerboodle homework

<b>Summer 2</b>	<b>Year 8</b> A1/A2/A3/B1/B2/B3
<b>Week 34</b> (w/b 5 <sup>th</sup> Jun)	Lesson 1: 4.2.1 Light Lesson 2: 4.2.1 Light Lesson 3: 4.2.2 Reflection
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain Ray, path, reflect, absorb, shadow, translucent, transparent, opaque, specular, diffuse, total internal reflection, critical angle, dispersion,
<b>Common Misconceptions</b>	Light doesn't travel in a straight line. Primary colours in Art and Science are the same) (They are Red, Green, Blue in science). They think an object gives off a colour instead of reflecting.
<b>Homework</b>	Kerboodle task suitable to ability of group.
<b>Assessment this half-term</b>	w/b 26 <sup>th</sup> June – 4a Waves test w/b 10 <sup>th</sup> July – End of year test
<b>Career opportunities</b>	LIFE SKILLS: Understanding colour, lighting your home, use of camera
<b>Employment Links</b>	EMPLOYMENT: Lighting engineer, electrician, fibre optic cable engineer

<b>Employability Skills</b>	Aiming high Problem solving	Literacy Staying positive	<b>Creativity</b>	Numeracy	Leadership	Independence	Listening	<b>Communication</b>	<b>Presenting</b>	Teamwork
<b>IT Skills</b>	IT2: Kerboodle homework									
<b>Week 35 (w/b 12<sup>th</sup> Jun)</b>	Lesson 1: 4.2.2 Reflection Lesson 2: 4.2.3 Refraction Lesson 3: 4.2.3 Refraction									
<b>Key Words</b> <b>Level 2</b> <b>Level 3</b>	Identify, describe, explain Ray, path, reflect, absorb, shadow, translucent, transparent, opaque, specular, diffuse, total internal reflection, critical angle, dispersion,									
<b>Common Misconceptions</b>	Light doesn't travel in a straight line. Primary colours in Art and Science are the same) (They are Red, Green, Blue in science). They think an object gives off a colour instead of reflecting.									
<b>Homework</b>	Kerboodle task suitable to ability of group.									
<b>Assessment this half-term</b>	w/b 26 <sup>th</sup> June – 4a Waves test w/b 10 <sup>th</sup> July – End of year test									
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Understanding colour, lighting your home, use of camera EMPLOYMENT: Lighting engineer, electrician, fibre optic cable engineer									
<b>Employability Skills</b>	Aiming high Problem solving	Literacy Staying positive	<b>Creativity</b>	Numeracy	Leadership	Independence	Listening	<b>Communication</b>	<b>Presenting</b>	Teamwork
<b>IT Skills</b>	IT2: Kerboodle homework									
<b>Week 36 (w/b 19<sup>th</sup> Jun)</b>	Lesson 1: 4.2.4 The eye and vision Lesson 2: 4.2.5 Colour - dispersion Lesson 3: 4.2.5 Colour - filters									
<b>Key Words</b> <b>Level 2</b> <b>Level 3</b>	Identify, describe, explain Ray, path, reflect, absorb, shadow, translucent, transparent, opaque, specular, diffuse, total internal reflection, critical angle, dispersion,									
<b>Common Misconceptions</b>	Light doesn't travel in a straight line. Primary colours in Art and Science are the same) (They are Red, Green, Blue in science). They think an object gives off a colour instead of reflecting.									
<b>Homework</b>	Kerboodle task suitable to ability of group.									
<b>Assessment this half-term</b>	w/b 26 <sup>th</sup> June – 4a Waves test w/b 10 <sup>th</sup> July – End of year test									
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Understanding colour, lighting your home, use of camera EMPLOYMENT: Lighting engineer, electrician, fibre optic cable engineer									
<b>Employability Skills</b>	Aiming high Problem solving	Literacy Staying positive	<b>Creativity</b>	Numeracy	Leadership	Independence	Listening	<b>Communication</b>	<b>Presenting</b>	Teamwork
<b>IT Skills</b>	IT2: Kerboodle homework									
<b>Week 37 (w/b 26<sup>th</sup> Jun)</b>	Lesson 1: 4a Waves Test Lesson 2: Exemplars Lesson 3: Feedback									
<b>Key Words</b> <b>Level 2</b> <b>Level 3</b>	Identify, describe, explain Ray, path, reflect, absorb, shadow, translucent, transparent, opaque, specular, diffuse, total internal reflection, critical angle, dispersion,									
<b>Common Misconceptions</b>	Light doesn't travel in a straight line. Primary colours in Art and Science are the same) (They are Red, Green, Blue in science). They think an object gives off a colour instead of reflecting.									
<b>Homework</b>	Kerboodle task suitable to ability of group.									
<b>Assessment this half-term</b>	w/b 26 <sup>th</sup> June – 4a Waves test w/b 10 <sup>th</sup> July – End of year test									
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Understanding colour, lighting your home, use of camera EMPLOYMENT: Lighting engineer, electrician, fibre optic cable engineer									
<b>Employability Skills</b>	Aiming high Problem solving	Literacy Staying positive	Creativity	<b>Numeracy</b>	Leadership	Independence	Listening	<b>Communication</b>	<b>Presenting</b>	Teamwork

IT Skills	IT2: Kerboodle homework
<b>Week 38</b> (w/b 3 <sup>rd</sup> July)	Lesson 1: End of year test revision - Biology Lesson 2: End of year test revision – Chemistry Lesson 3: End of year test revision – Physics
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain, compare, contrast Subject specific keywords revisited
<b>Common Misconceptions</b>	Identified from active questioning
<b>Homework</b>	Kerboodle task suitable to ability of group.
<b>Assessment this half-term</b>	4a Waves Test/End of year test
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Resilience and organisation EMPLOYMENT: Science teacher
<b>Employability Skills</b>	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
IT Skills	IT2: Kerboodle homework
<b>Week 39</b> (w/b 10 <sup>th</sup> July)	Lesson 1: End of year test Lesson 2: End of year test - Exemplars Lesson 3: End of year test - Feedback
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain, compare, contrast Subject specific keywords revisited
<b>Common Misconceptions</b>	Identified from assessment
<b>Homework</b>	Kerboodle task suitable to ability of group.
<b>Assessment this half-term</b>	4a Waves Test/End of year test
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Resilience and organisation EMPLOYMENT: Science teacher
<b>Employability Skills</b>	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
IT Skills	IT2: Kerboodle homework
<b>Notes/developments</b> <b>/standardisation comments</b>	
<b>Week 40</b> (w/b 17 <sup>th</sup> July)	Lesson 1: End of year test - Feedback Lesson 2: End of year test - Feedback Lesson 3: End of year test - Feedback
<b>Key Words</b> Level 2 Level 3	Identify, describe, explain, compare, contrast Subject specific keywords revisited
<b>Common Misconceptions</b>	Identified from assessment
<b>Homework</b>	Kerboodle task suitable to ability of group.
<b>Assessment this half-term</b>	4a Waves Test/End of year test
<b>Career opportunities</b> <b>Employment Links</b>	LIFE SKILLS: Resilience and organisation EMPLOYMENT: Science teacher
<b>Employability Skills</b>	Aiming high      Literacy      Creativity      Numeracy      Leadership      Independence      Listening      Communication      Presenting      Teamwork Problem solving      Staying positive
IT Skills	IT2: Kerboodle homework