Year 1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	**Everyday materials**	**Seasonal Change – Autumn/ Winter**	**Animals, including humans**	**Seasonal Change - Spring**	**Plants**	**Seasonal Change - Summer**
Literacy Focus **Numeracy Focus**	**Literacy:** To be able to use descriptive words for observations. To be able to use key vocabulary related to materials. **Numeracy:** Gathering and ordering data. Compare, group, gather and record data.	**Literacy:** To be able to use descriptive words for observations. **Numeracy:** Compare data, including length of days.	**Literacy:** To be able to use descriptive words for observations. Be able to name common animals and body parts. **Numeracy:** Being able to identify and classify.	**Literacy:** To be able to use descriptive words for observations. **Numeracy:** Compare data, including length of days.	**Literacy:** To be able to use descriptive words for observations. To become familiar with common plant/tree names. **Numeracy:** Sort, group and classify. Make comparisons over time.	**Literacy:** To be able to use descriptive words for observations. **Numeracy:** Compare data, including length of days.
SMSC	How materials affect the environment they are in.	Develop understanding of the world around them.	How should we treat and care for non-human animals.	Develop understanding of the world around them.	Develop understanding of the world around them.	Develop understanding of the world around them.

Year 2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	**Animals including humans**		**Living things and their habitats**	**Plants**	**Uses of everyday materials**	
Literacy Focus **Numeracy Focus**	**Literacy:** To be able to use descriptive words for observations. Use appropriate questioning. **Numeracy:** Gather and compare data, measurements of growth over time.		**Literacy:** To be able to use descriptive words for observations. Raise and answer questions. Use key vocabulary, specifically 'habitat'. **Numeracy:** Sort and classify data.	**Literacy:** To be able to use descriptive words for observations. To be able to use key vocabulary related to plants. **Numeracy:** Compare data, growth over time.	**Literacy:** To be able to use descriptive words for observations. Contribute to discussions and ask appropriate questions. **Numeracy:** Identify, classify and record observations. Compare shapes.	
SMSC	Understand the basic needs animals, including humans, need for survival and how to stay healthy.		Understand the differences between things that are living, dead, and things that have never been alive	Understanding plant reproduction and what plants need to stay healthy.	Understand the use of different materials in everyday life.	

Year 3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	**Light**	**Rocks**	**Forces and Magnet**	**Plants**	**Animals including humans**	
Literacy Focus **Numeracy Focus**	**Literacy:** To be able to use descriptive words for observations. To read and spell scientific vocabulary correctly. **Numeracy:** Enter data into a table, measure and compare data.	**Literacy:** To be able to use descriptive words for observations. Raise and answer questions. **Numeracy:** Compare and group data. Observe change over time.	**Literacy:** To be able to use descriptive words for observations. Use scientific vocabulary correctly. **Numeracy:** Enter data into a table, sort and compare.	**Literacy:** To be able to use descriptive words for observations. Draw and annotate diagrams. **Numeracy:** Observe life cycle over time, look for patterns in data.	**Literacy:** To be able to use descriptive words for observations. Use key vocabulary related to nutrition and name body parts associated with the skeleton and muscles. **Numeracy:** Identify, group and compare data.	
SMSC	To recognise that light from the sun can be dangerous and that there are ways to protect their eyes.	Develop understanding of the changes that occur in the world around them.	Develop appreciation of the invisible forces that are present in the world around them.	Understand the requirements of plants for life and growth.	Understand the importance of good nutrition and that we source food from our environment.	

Year 4	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	**Animals including humans**	**Electricity**	**Sound**		**Living things and their habitats**	**States of matter**
Literacy Focus **Numeracy Focus**	**Literacy:** To be able to use descriptive words for observations. Use key vocabulary related to the digestive system of humans, and teeth. **Numeracy:** Record and compare data.	**Literacy:** To be able to use descriptive words for observations. Use terms 'voltage' and 'current' correctly. Draw a pictorial representation of a circuit. **Numeracy:** Observe patterns in data.	**Literacy:** To be able to use descriptive words for observations. Use key vocabulary associated with ears and sound correctly. Record data. **Numeracy:** Compare and find patterns in data.		**Literacy:** To be able to use descriptive words for observations. Raise and answer questions. **Numeracy:** Identify, classify and group data.	**Literacy:** To be able to use descriptive words for observations. Use key vocabulary appropriately. **Numeracy:** Observe, compare and group data. Measure temperature.
SMSC	Understand the role of different body parts.	Understand the role of electricity in everyday objects and how these help in a variety of ways. Understand the dangers of electricity.	Understand the importance of hearing for safety and communications. Recognise there are people in society with impaired hearing. Music – different instruments used in different cultures.		Recognise that environments can change and that this can sometimes pose dangers to living things.	Understand change of state occurs in the world around them. Relate to everyday experiences.

Year 5	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	**Earth and Space**		**Forces**	**Properties and changes of materials**	**Animals including humans**	**Living things and their habitats**
Literacy Focus **Numeracy Focus**	**Literacy:** To be able to use descriptive words for observations. Record date. Make illustrative representations. **Numeracy:** Compare time of day, use of sundials as a clock.		**Literacy:** To be able to use descriptive words for observations. Recording data in a table. **Numeracy:** Compare and group data.	**Literacy:** To be able to use descriptive words for observations. Record results of investigations accurately. **Numeracy:** Compare and group data.	**Literacy:** To be able to use descriptive words for observations. Create and draw a timeline. **Numeracy:** Record length and mass of babies, compare data.	**Literacy:** To be able to use descriptive words for observations. Study and raise questions about their environment. **Numeracy:** Observe and compare data. Study changes over time.
SMSC	To recognise that light from the sun can be dangerous and that there are ways to protect their eyes. Understand our place in this world and relation to the solar system.		Develop appreciation of the invisible forces that are present in the world around them.	Understand real life use of scientific change of materials.	Understand the changes as humans develop to old age.	Understand different types of reproduction occurs in plants and animals.

Year 6	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	**Living things and their habitats**	**Animals including humans**	**Evolution and Inheritance**	**Light**	**Electricity**	
Literacy Focus **Numeracy Focus**	**Literacy:** To be able to use descriptive words for observations. Input research results into an appropriate format (charts/tables). **Numeracy**: Classify data**.**	**Literacy:** To be able to use descriptive words for observations. Conduct and record research. **Numeracy:** Compare data.	**Literacy:** To be able to use descriptive words for observations. Observe and raise questions. **Numeracy:** Analyse and compare data.	**Literacy:** To be able to use descriptive words for observations. Annotate drawings and designs. **Numeracy:** Analyse and compare data. Measurement work with periscopes.	**Literacy:** To be able to use descriptive words for observations. To be able to represent a simple circuit in a diagram using recognised symbols. **Numeracy:** Compare data, systematic changes.	
SMSC	Develop appreciation of the work of renowned scientists and how this has helped our understanding of the world around us.	Understand how to stay healthy and what may cause harm to human bodies.	Understand that all living things are unique.	Understanding the importance and celebration of light in other cultures.	Understand the dangers of electricity and the precautions for working safely with electricity.	

Year 7	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	All groups. Topics studied: - Working scientifically. - Cells.	All groups. Topics studied: - Particles & their behaviour.	All groups. Topics studied: - Structure & function of body systems. • Sound. - Light.	All groups. Topics studied: - Elements, atoms, compounds. - Forces.	All groups. Topics studied: - Reproduction.	All groups. Topics studied: - Space (Collaboration with Maths) - STEM Space Project Enrichment visit: National Space Centre.
Literacy Focus	Use of scientific vocabulary and definitions throughout, in order to label diagrams and write scientific explanations; Writing a set of instructions for using a microscope; "Specialised cells" – 6 mark question.	Use of scientific vocabulary and definitions throughout, in order to label diagrams and write scientific explanations; "States of matter" 6 mark question.	Use of scientific vocabulary and definitions throughout, in order to label diagrams and write scientific explanations; "The eye and the camera" 6 mark question.	Use of scientific vocabulary and definitions throughout, in order to label diagrams and write scientific explanations; "Squashing and stretching" 6 mark question.	Use of scientific vocabulary and definitions throughout, in order to label diagrams and write scientific explanations.; "Menstrual cycle" 6 mark question.	Use of scientific vocabulary and definitions throughout, in order to label diagrams and write scientific explanations; "What is in the universe?" reading comprehension.
Numeracy Focus	Calculating means; Presenting data as a bar chart and scatter graph.	Presenting data as a cooling/ heating curve.	Use a protractor to measure angles	Calculating means; Presenting data as a scatter graph; Drawing a line of best fit.		Presenting data as a scatter graph; Drawing a line of best fit; Interpreting data.
SMSC	Develop an understanding of themselves and the world around them. Understand how everyday objects work. Develop an understanding of how their body works and how to keep themselves healthy. Be able to identify how we reproduce and the methods to stop unwanted pregnancy. Explore our place in the universe and how we are exploring space.					

Year 8	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	All groups. Topics studied: - Reactions.	All groups. Topics studied: • Health & lifestyle.	All groups. Topics studied: • Separation techniques. • Ecosystem processes. - Periodic table. - Motion & pressure.	All groups. Topics studied: - Acids & alkalis. • Electricity & magnetism (Collaboration with Maths).	All groups. Topics studied: B1.1/B2.1 GCSE & ELB1 Entry Level taster to determine year 9 Science setting.	All groups. Topics studied: - Adaptation & inheritance. - STEM Adaptations Project Enrichment visit: Animal park.
Literacy Focus	Use of scientific vocabulary and definitions throughout, in order to label diagrams and write scientific explanations; "Food tests" 6 mark question; "The digestive system" extended writing.	Use of scientific vocabulary and definitions throughout, in order to label diagrams and write scientific explanations; "Who stole the money?" crime report writing.	Use of scientific vocabulary and definitions throughout, in order to label diagrams and write scientific explanations; "Metals and non-metals" 6 mark question; "Electromagnets" 6 mark question.	Use of scientific vocabulary and definitions throughout, in order to label diagrams and write scientific explanations.; "Making salts " – 6 mark question.	Use of scientific vocabulary and definitions throughout, in order to label diagrams and write scientific explanations.	Use of scientific vocabulary and definitions throughout, in order to label diagrams and write scientific explanations.
Numeracy Focus	"Alcohol and reaction times" – Calculating means & plotting appropriate graphs when presented with data.		"Trends in noble gases" – Plotting a bar chart. "Resistance of a wire" - Calculating means and resistance; Presenting data as a scatter graph; Drawing a line of best fit.	Calculating speed; Using distance-time graphs; calculating pressure; calculating moments.		"Investigating arm span" – calculating means and plotting an appropriate graph.
SMSC	Develop an understanding of themselves and the world around them. Understand how everyday objects work. Develop an understanding of how their body works and how to keep themselves healthy. Apply knowledge of how our bodies work to everyday choices and understand how to keep our body healthy. Describe how we are changing our world.					

Year 9	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	All groups: Completion of KS3 topics. - Adaptation & inheritance. - Motion & pressure.	All groups: Completion of KS3 topics. - Energy (Collaboration with Maths). - Acids & alkalis.	9 GCSE group 1: C1 Particles and C2.1 Elements, compounds & mixtures. 9 GCSE group 2: B1 cell level systems and B 2.1 Scaling up. 9 Entry Level group: ELB2 Babies and ELB3 Control systems.	9 GCSE group 1: P1 Matter and P3.1 Static electricity and magnetism. B1 cell level systems and B2.1 Scaling up. 9 GCSE group 2: B1 cell level systems and B2.1 Scaling up. 9 Entry Level group: ELP1 Getting the message and ELP2 Full spectrum. Enrichment visit: Big Bang.	9 GCSE group 1: C1 Particles and C2.1 Elements, compounds & mixtures. 9 GCSE group 2: P1 Matter and P3.1 Static electricity and magnetism. B1 cell level systems and B2.1 Scaling up. 9 Entry Level group: ELC1 Physical & chemical change and ELC2 Acids & alkalis.	9 GCSE group 1: B2.2 scaling up B3 organ level systems. 9 GCSE group 2: C2.2 & 2.3 Elements, compounds & mixtures and C3 Chemical reactions. 9 Entry Level group: ELP3 Medical rays and ELP4 Hot stuff.
Literacy Focus	Use of scientific vocabulary and definitions throughout, in order to label diagrams and write scientific explanations; "Climate change" – 6 mark question.	Use of scientific vocabulary and definitions throughout, in order to label diagrams and write scientific explanations; "Climate change" – 6 mark question.	Use scientific vocabulary, terminology, and definitions, with limited accuracy in spelling, punctuation, and grammar. Label diagrams using simple sentence structure and familiar vocabulary.	Use scientific vocabulary, terminology, and definitions, with limited accuracy in spelling, punctuation, and grammar. Label diagrams using simple sentence structure and familiar vocabulary.	Use scientific vocabulary, terminology, and definitions, with limited accuracy in spelling, punctuation, and grammar. Label diagrams using simple sentence structure and familiar vocabulary.	Use scientific vocabulary, terminology, and definitions, with limited accuracy in spelling, punctuation, and grammar. Label diagrams using simple sentence structure and familiar vocabulary.
Numeracy Focus		"Power" – Calculating power; "Work" – Calculating energy, work and moments.	Calculate magnification, scale and actual size of images in microscopes; use SI units to the correct order of magnitude; record data from an experiment; calculate the mean from a set of data; present data correctly in graphs. Record measurements from an experimental method; calculate a change in mass; calculate the surface area or volume of an object.	Calculate magnification, scale and actual size of images in microscopes; use SI units to the correct order of magnitude; record data from an experiment; calculate the mean from a set of data; present data correctly in graphs; record measurements from an experimental method; calculate a change in mass; calculate the surface area or volume of an object.	Calculate magnification, scale and actual size of images in microscopes; use SI units to the correct order of magnitude; record data from an experiment; calculate the mean from a set of data; present data correctly in graphs; record measurements from an experimental method; calculate a change in mass; calculate the surface area or volume of an object; calculate the ratio between two values; calculate the volume of a cuboid.; use the magnetic flux equation.	Use a sampling technique to record organisms in their environment; record data in a table and use it to plot a graph with given axes. Use data to sketch a pyramid of biomass. Recognise trends in epidemiological data. Apply the equation V=I/R. Record data from an experiment in the table provided. Work out the mean of a set of data. Present data correctly in graphs.
SMSC	Describe how we are changing the earth climate and how we can reduce pollution	Develop an understanding of how we use energy and how to reduce energy waste	Discuss the ethical issues around stem cell research.	Discuss the ethical issues around stem cell research. Explore how we use electricity and magnetism in everyday situations	Explore how we use electricity and magnetism in everyday situations. Describe how birth control; works	Discuss the ethical issues around stem cell research. Explore ways to diagnose and treat cancer.

Year 10	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	10 GCSE group 1: P4.1 Waves and P3 Electricity & magnetism. 10 GCSE group 2: C2.1, C2.2 & C2.3 Elements, compounds & mixtures. 10 Entry Level group : ELB1 Dead or alive, ELB2 Babies and ELB3 Control systems.	10 GCSE group 1: C2.1, C2.2 & C2.3 Elements, compounds & mixtures. 10 GCSE group 2: P4.1 Waves and P3 Electricity & magnetism. 10 Entry Level group: ELC1 Physical or chemical change, ELC2 Acids and alkalis, ELC3 Everything in its place, ELP1 Getting the message.	10 GCSE group 1: B2 scaling up & B3 organ level systems. 10 GCSE group 2: P4.2 E.M Spectrum & P4.3 Radioactivity & P2.1 Speed and acceleration. 10 Entry Level group : ELP2 Full spectrum, ELP3 Medical rays, ELB4 Fooling your senses.	10 GCSE group 1: P4.2 E.M Spectrum & P4.3 Radioactivity & P2.1 Speed and acceleration. 10 GCSE group 2: B2 scaling up & B3 organ level systems. 10 Entry Level group : ELB5 Gasping for breath, ELB6 Casualty, ELC4 Clean air and water.	10 GCSE group 1: B4 & B5. 10 GCSE group 2: C3. 10 Entry Level group : ELC5 Novel materials, ELC6 Sorting out, ELP4 Hot stuff.	10 GCSE group 1: C3. 10 GCSE group 2: B4 & B5. 10 Entry Level group : ELP5 Alternative energy, ELP6 Nuclear power, ELB7 You only have one life, look after it. Enrichment visit: ThinkTank/ Natural History/Science Museum.
Literacy Focus **Numeracy Focus**	Use scientific vocabulary, terminology, and definitions, with limited accuracy in spelling, punctuation, and grammar. Label diagrams using simple sentence structure and familiar vocabulary. Numeracy: Use a sampling technique to record organisms in their environment. Record date in a table and use it to plot a graph with given axes. Use data to sketch a pyramid of biomass. Recognise trends in epidemiological data. Apply the equation V=I/R. Use graphs to represent the resistance in components. Be able to use and rearrange relevant equations.	Use scientific vocabulary, terminology, and definitions, with limited accuracy in spelling, punctuation, and grammar. Label diagrams using simple sentence structure and familiar vocabulary. Numeracy: Apply the equation V=I/R. Use graphs to represent the resistance in components. Be able to use and rearrange relevant equations. Record data from an experiment in the table provided. Work out the mean of a set of data. Present data correctly in graphs.	Use scientific vocabulary, terminology, and definitions, with limited accuracy in spelling, punctuation, and grammar. Label diagrams using simple sentence structure and familiar vocabulary. Numeracy:. Be able to use and rearrange relevant equations. Be able to work out the probability ratio of likely offspring Record data from an experiment in the table provided. Work out the mean of a set of data. Present data correctly in graphs.	Use scientific vocabulary, terminology, and definitions, with limited accuracy in spelling, punctuation, and grammar. Label diagrams using simple sentence structure and familiar vocabulary. Numeracy:. Be able to use and rearrange relevant equations. Be able to work out the probability ratio of likely offspring Be able to use and rearrange relevant equations. Be able to convert watts to kilowatts. Record data from an experiment in the table provided. Work out the mean of a set of data. Present data correctly in graphs.	Use scientific vocabulary, terminology, and definitions, with limited accuracy in spelling, punctuation, and grammar. Label diagrams using simple sentence structure and familiar vocabulary. Numeracy:. Be able to use and rearrange relevant equations. Be able to convert watts to kilowatts. Record data from an experiment in the table provided. Work out the mean of a set of data. Present data correctly in graphs.	Use scientific vocabulary, terminology, and definitions, with limited accuracy in spelling, punctuation, and grammar. Label diagrams using simple sentence structure and familiar vocabulary.
SMSC	Consider the risks associated with using radioactive materials.	Consider the risks associated with using radioactive materials.	Describe how ecosystems can be altered via human interactions.	Describe how ecosystems can be altered via human interactions. Describe how we can save energy with our everyday choices. Make informed choices which will save money and reduce their environmental impact. Describe the safety implications of not maintaining a car. Assess how our electricity is produced and the environmental impact of energy production.	Describe how we can save energy with our everyday choices. Make informed choices which will save money and reduce their environmental impact. Describe the safety implications of not maintaining a car and how environmental factor can impact of car performance. Assess how are electricity is produce and the environmental impact of energy production	Debate the pro and cons of farming techniques and selective breeding and genetic modification

Year 11	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Areas of Study	11 GCSE group 1: P2 Forces. 11 GCSE group 2: B5 & B6 Global challenges. 11 GCSE group 3: C5 monitoring and controlling reactions & C6 Global Challenges. 11 Entry Level group : Practical task and ELC9 Fuels.	11 GCSE group 1: C5 monitoring and controlling reactions & C6 Global Challenges. 11 GCSE group 2: P2 Forces. 11 GCSE group 3: B5 & B6 Global challenges. 11 Entry Level group : ELC10 Are you overreacting, ELC11 How fast, how slow	11 GCSE group 1: B5 & B6 Global challenges. 11 GCSE group 2: C5 monitoring and controlling reactions & C6 Global Challenges. 11 GCSE group 3: P2 Forces and P5 Energy. * Maths and Science crossover questions workshop. 11 Entry Level group : ELB10 Extinction, ELB11 My genes and ELB12 Food factory.	11 GCSE group 1: Exam revision (Physics) + P6 Global challenges. 11 GCSE group 2: Exam revision (Biology). 11 GCSE group 3: Exam revision (Chemistry). 11 Entry Level group : ELP11 Fly me to the moon and ELP12 Final frontiers.	11 GCSE group 1: Exam revision (Chemistry). 11 GCSE group 2: Exam revision (Physics) + P6 Global challenges. 11 GCSE group 3: Exam revision (Biology). 11 Entry Level group : ELC12 CSI plus.	Enrichment visit: ThinkTank/Natural History/ Science Museum.
Literacy Focus **Numeracy Focus**	Literacy: Use scientific vocabulary, terminology, and definitions, with limited accuracy in spelling, punctuation, and grammar. Describe by communicating simply, producing text with basic structure and familiar vocabulary. Use general references to scientific texts to support their comments and opinions. Label diagrams using simple sentence structure and familiar vocabulary. Numeracy: Record data from an experiment in the table . Work out the mean of a set of data. Present data correctly in graphs. Use equations to work out speed acceleration and motion. Start to rearrange these equations.	Literacy: Use scientific vocabulary, terminology, and definitions, with limited accuracy in spelling, punctuation, and grammar. Describe by communicating simply, producing text with basic structure and familiar vocabulary. Use general references to scientific texts to support their comments and opinions. Label diagrams using simple sentence structure and familiar vocabulary Numeracy: Record data from an experiment in the table . Work out the mean of a set of data. Present data correctly in graphs. Use equations to work out speed acceleration and motion. Start to rearrange these equations.	Literacy: Use scientific vocabulary, terminology, and definitions, with limited accuracy in spelling, punctuation, and grammar. Describe by communicating simply, producing text with basic structure and familiar vocabulary. Use general references to scientific texts to support their comments and opinions. Label diagrams using simple sentence structure and familiar vocabulary	Literacy: Use scientific vocabulary, terminology, and definitions, with limited accuracy in spelling, punctuation, and grammar. Describe by communicating simply, producing text with basic structure and familiar vocabulary. Use general references to scientific texts to support their comments and opinions. Label diagrams using simple sentence structure and familiar vocabulary	Literacy: Use scientific vocabulary, terminology, and definitions, with limited accuracy in spelling, punctuation, and grammar. Describe by communicating simply, producing text with basic structure and familiar vocabulary. Use general references to scientific texts to support their comments and opinions. Label diagrams using simple sentence structure and familiar vocabulary	
SMSC	Debate the pro and cons of farming techniques and selective breeding and genetic modification.					