

Intent:

- Pupils will have a greater understanding of science and how it fits into the world around them.
- Pupils will develop and demonstrate a range of skills through science activities and studies.
- Pupils will help develop and demonstrate understanding of current issues pertaining to the sciences.
- Pupils will gain a sense of pride in their achievements.
- Pupils will learn as a team with a shared positive ethos and purpose.

Term	Week/s	Topic/Theme <i>Key vocabulary including Tier 3 subject specific words</i>	Learning Outcomes Knowledge and Skills To know, to use, to apply...	Links to: Literacy, Numeracy, SMSC, Gatsby Benchmarks
Autumn	1-8	The Human Machine Modules A: 1, 4, 6, 7 <i>Thermometer, temperature measure, compare difference, materials insulation, sound justify, reduce nutrition, food groups, nutrients, vitamins, minerals, proteins, carbohydrates, fibre, water, fats, repair, digest, intestine, gut, villi, peristalsis, absorb, oesophagus, pancreas, small intestine, stomach, large intestine, duodenum</i>	<ul style="list-style-type: none"> • To understand the body from various perspectives, by carrying out a variety of experiments. • To use skills in order to plan, carry out and review the experiments. 	Literacy Develop vocabulary, write for a purpose, present work, take part in discussion Numeracy Measure length/capacity/mass/time/temp Record length/capacity/mass/time/temp Sequence events SMSC Enjoy learning about themselves, cooperate with others
	9-15	Forces and Motion Modules A: 1,2,5,6 <i>Float, sink, up-thrust, water resistance, mass, volume, predict, conclusion, diet, sugar, support, stability, gravity, scale, diagram, air resistance, surface area, height, force, diameter, bones, investigate</i>	<ul style="list-style-type: none"> • To investigate various aspects of forces and motion. • To use skills in order to plan, carry out and review the experiments. 	Literacy Develop vocabulary, ask questions, answer questions, take part in discussion, use new vocabulary, present information and opinions Numeracy Measure length/capacity/mass/time/temp, record length/capacity/mass/time/temp Sequence events, draw a pictogram/bar/tally/line/pie chart Interpret a pictogram/ bar/tally/line/pie chart SMSC Enjoy learning about the world around them, cooperate with others
Spring	1-6	Chemical Change Modules A: 1,2,3,4,6 <i>Mass, burning, candle, changes, graph, pH, ingredients, acid, alkaline, temperature, salt, ice, potassium, lithium, sodium, caesium, water, observation, elements, periodic table, indicator, solution, red cabbage, spinach, turmeric, reaction, dilute, acid, alkali</i>	<ul style="list-style-type: none"> • To investigate change and observe closely to recognise patterns. • To use skills in order to plan, carry out and review the experiments. 	Literacy Use new vocabulary, write for purpose, present information and opinions Numeracy Measure length/capacity/mass/time/temp Record length/capacity/mass/time/temp Sequence events SMSC Cooperate with others, enjoy learning about the world around them

	6-12	Biological Challenges Modules B:1 B:5 (maths focus) <i>Maximise, food, yield, farming, Latin squares, size, shape, seeds, germinate, pollutants, acid, ammonia, cotton wool</i>	<ul style="list-style-type: none"> To investigate how the environment changes both naturally and when changed by humans, look at how diet can affect us. To use skills in order to plan, carry out and review the experiments. 	Literacy Develop vocabulary, ask questions, answer questions, take part in discussion, use new vocabulary, present information and opinions Numeracy Read and plot coordinates, draw a pictogram/bar/tally/line/pie chart, know that graphs have scales. Interpret a pictogram/ bar/tally/line/pie chart SMSC Investigate moral and ethical issues, enjoy learning about themselves.
Summer	1-5	Space Modules A: 2,3,4,7 <i>Moon, phases, waxing, waning, eclipse, crescent, quarter, gibbous, full, half, fraction, solar system, planets, Neptune, Mars, Mercury, Saturn, Venus, Jupiter, Uranus, earth, sun, shadow, length, angle, change, latitude, time, year, argument, evidence</i>	<ul style="list-style-type: none"> To carry out research and extract relevant information, use IT skills to display this in a variety of ways. 	Literacy Develop vocabulary, write for a purpose, present work, take part in discussion, research, comprehend Numeracy Measure length/capacity/mass/time/temp, record length/capacity/mass/time/temp Sequence events, draw a pictogram/bar/tally/line/pie chart, know that graphs have scales. Interpret a pictogram/ bar/tally/line/pie chart SMSC Enjoy learning about the world around them
	6-12	Performance in Sport Module B:1, 2 <i>Fitness, speed, time, measure, stopwatch, distance, length, shuttle, run, record, data, femur, position, jump, correlate, analyse, investigate</i>	<ul style="list-style-type: none"> Compare two sets of data in order to identify patterns. To use key scientific enquiry skills in order to plan, carry out and review the experiments. 	Literacy Develop vocabulary, write for a purpose, present work, take part in discussion, research, comprehend Numeracy Draw a pictogram/bar/tally/line/pie chart, know that graphs have scales, Interpret a pictogram/ bar/tally/line/pie chart SMSC Enjoy learning about themselves, cooperate with others

Intended impact:
 Pupils' confidence in using skills related to scientific enquiry will develop, enabling them to access the Y11 curriculum. Pupils will be able to learn more independently, developing employability skills. Pupils will be curious about the world around them, applying what they learn in familiar and unfamiliar contexts.