Stone Hill School

Upper School Curriculum Plan 2020/21

Science/Year 11

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 *Key vocabulary including Tier 3 subject specific words*	Learning Outcomes Knowledge and Skills To know, to use, to apply…	Links to: Literacy, Numeracy, SMSC, Gatsby Benchmarks
Autumn	**1-8**	**Chemical Change** **Modules A: 1,2,3,4,6** *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*	• 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**
	9-15	**Forces and Motion** **Modules A: 1,2,5,6** *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,*	• 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**	**Biological Challenges** **Modules B:1** **B:5 (maths focus)** *Maximise, food, yield, farming, Latin squares, size, shape, seeds, germinate, pollutants, acid, ammonia, cotton wool,*	• 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.
	6-12	**Space** **Modules A: 2,3,4,7** *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,*	• 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

		time, year, oon, argument, evidence,		
Summer	**1-6**	Check: • Complete record of progress • Evidence for each challenge is complete • Correct number of short course skills sheets are complete • Summary of Achievement is complete • Personal Statement is complete		
Intended impact: Pupils' confidence in using skills related to scientific enquiry will develop, allowing them to confidently move into a Post 16 setting. Pupils will continue 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. Pupils will be confident about asking questions and finding out about their lives and the lives of those around them.				