Curriculum Map - Science

TERM	CONTENT AND SKILLS				
	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11
AUTUMN	• Introduction to science • Mixing, dissolving and separating • Cells and reproduction • Energy transfers or Elements, compounds and reactions **Skills:** planning experiments, using apparatus and how scientific theories develop over time **PD:** research, communication, observation	• Introduction to science • Plants and ecosystems • Particles theory • Electricity & magnetism or chemical changes **Skills:** Making hypotheses, identifying control variables, using apparatus to take measurements & observations and scientific calculations **PD:** communication skills	• Energy stores & transfers • Chemical changes • Cellular basis of life • Waves • Our Dynamic planet **Skills:** make comparative predictions and develop explanations. Explain the applications and implications of science. **PD:** Leadership, teamworking skills and resilience	• Cell biology & bioenergetics • Plant biology & Transport • Atomic structure & the periodic table • Structure, Bonding and properties of matter. • Energy & Electricity **Skills:** recognise and use numbers in decimals & standard form. Use numbers in standard form. **PD:** Resilience, communication skills	• Coordination & control • Ecology in action • Forces & Motion • Waves • Rates of reaction • Organic chemistry • The atmosphere **Skills:** drawing and interpreting graphs; using and rearranging equations. General exam techniques. **PD:** Data collection, Data analysis
SPRING	• Energy transfers or Elements, compounds and reactions • Diet, Digestion & Breathing or Forces **Skills:** Using apparatus and designing risk assessments; presenting observations or data in charts or graphs; and simple scientific calculations **PD:** data collection, data analysis	• Electricity & magnetism or chemical changes • Forces or Human body systems **Skills:** Evaluating data in terms of repeatability and reproducibility; the power and limitations of science and ethical issues; calculating mean & range **PD:** Data analysis, problem solving skills	• Health & Disease • Motion on Earth and in Space • Chemical reactivity • Atomic structure and the periodic table **Skills:** changing the subject of an equation, presenting reasoned explanations for results, learning about different sampling techniques. **PD:** research skills, data analysis	• Cellular transport • Infection & response • Digestion • Energy changes in chemistry • Chemical calculations • Particle model of matter • Radioactivity & the atom **Skills:** Using formulae and equations; understanding graphs. **PD:** research skills, communication skills	• Genetics, variation & evolution • Electromagnetism • Space (Triple science only) • Chemical Analysis • Sustainable development **Skills**: using ratios, fractions and percentages; using an appropriate number of significant figures. General exam techniques. **PD:** Observation skills
SUMMER	• Diet, Digestion & Breathing or Forces • STEM Roller coaster project • Field work. **Skills:** using and testing models, and interpreting observations or data to draw conclusions **PD:** teamworking, leadership skills and resilience	• Forces or Human body systems • Genetics & Evolution • Suncream project **Skills:** Using apparatus to take measurements; ethical issues in science; calculating mean and range; and explaining the applications and implications of science. **PD:** Team working, leadership skills and resilience	• Human Body systems • Practical Ecology • Electricity • Rates of chemical reaction **Skills:** Explaining the applications and implications of science, consider sampling techniques **PD:** Data collection, data analysis, team working skills	• Coordination & control • Ecology • Energy changes in chemistry • Quantitative chemistry • Rates of reaction • Forces & Motion **Skills:** Sampling and valid scientific data. Drawing and using gradients and tangents on graphs. **PD:** Data collection, data analysis and team working.	Revision & final exams

TERM	ASSESSMENT CALENDAR 2021 - 22				
	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11
AUTUMN	• Autumn Term Assessment: Mixed ability test 1hr *Weighting: 70%* • Desert Island Dehydration Dilemma (Classroom assignment) *Weighting: 20%* • Making a model cell (Homework project) *Weighting: 10%*	• Autumn Term Assessment: Mixed ability test 1 hr *Weighting 80%* • Farming and foodwebs (Classroom assignment) *Weighting: 20%*	Energy end of topic quiz *(weighting 30%)* Cells end of topic quiz *(weighting 30%)* Chemical changes end of topic quiz *(weighting 30%)* Rockcycle (classroom assignment) *(weighting 10%)*	End of Topic Tests: Each 1 hour long *(Weighting 100%.)*	End of Topic Tests: These will be higher or foundation tier *and will have a weighting of 50%.* Walking Talking Mock exam (on paper 1): This will be mixed tier *and will have a weighting of 50%*
SPRING	**Autumn term assessments will contribute 40% of the weighting for this term** • Spring Term Assessment: Mixed ability test 1hr *Weighting: 40%* • Which Fuel is Best? (Classroom assignment) *Weighting 10%* • Iron and Sulfur reaction (Classroom assignment) *Weighting: 10%*	**Autumn term assessments will contribute 40% of the weighting for this term** • Spring Term Assessment: Mixed ability test 1hr *Weighting: 30%* • Antacids (Classroom assignment) *Weighting 20%* • Scrap Heap Challenge (Classroom assignment) *Weighting: 20%*	B1 mixed tier test 1hr *Weighting 20%* C1 mixed tier test 1hr *Weighting 20%* C2 mixed tier test 1hr *Weighting 20%* P1 mixed tier test 1 hr *Weighting 20%* Light effects *(homework assignment) 10%* The dodgy BBQ *(homework assignment) 10%*	End of Topic Tests: Each 1 hour long *(Weighting 100% cumulative.)*	End of Topic Tests: These will be higher or foundation tier *and will have a weighting of 50% cumulative.* Paper 1 Mock Exam: This will be higher or foundation tier *and will have a weighting of 50%.*
SUMMER	**All previous assessments will contribute 40% of the weighting for this term** • Summer Term Assessment: Mixed ability test 1hr *Weighting 40%* • Journey of a cheese sandwich (Classroom assignment) *Weighting: 10%* • Interplanetary Postcards (Homework assignment) *Weighting: 10%*	**All previous assessments will contribute 40% of the weighting for this term** • Summer Term Assessment: Mixed ability test 1hr *Weighting 40%* • Exercise& the body (Homework assignment) *Weighting 20%*	**All spring term assessments will contribute 60% of the weighting for this term** • P2 mixed tier test 1 hr *(weighting 20%)* • C3 mixed tier test 1 hr *(weighting 20%)*	End of Topic tests: Each 1 hr long. *(Weighting 50% cumulative.)* End of Year 10 biology, chemistry and physics exams. Higher or Foundation tier Each 1 hr long *(Weighting 50%)*	Walking Talking Mock exam (on paper 2): This will be mixed tier *and will have a weighting of 50% cumulative.* Paper 2 Mock Exam: This will be higher or foundation tier *and will have a weighting of 50%.*