Year 7	Science		
Lesson Time:	Six lessons every two weeks		
Content Overview:	The Year 7 Programme of Study is the first year of a three year Key Stage 3 course. Students build on their knowledge, understanding and skills from Key Stage 2 and are introduced to new material and increasing the challenge of the subject. Students in Year 7 will be developing their Scientific Knowledge and Practical skills and starting to formulate scientific ideas that they will need in their Science course moving up the school. Please note that topics are taught on rotation so an exact time cannot be given as to when each topic will be taught.		
Assessment:	Students are assessed with a linear approach so each Key Assessment is structured with 50% of the questions based on the recently completed units and then the other 50% on all previously covered Year 7 topics. There are also many other literacy, numeracy and “working scientifically" tasks to assess student progress. Students' class work is assessed using formative marking tasks twice a half term completed by students along with comments as to What Went Well and Even Better If.		
Literacy:	Science has many complicated key terms so spelling and definitions are covered on a regular basis. Keyword lists are shared at the start of every topic and towards the end of the topic a mini keyword test is conducted.		
Numeracy:	Numeracy skills in the schemes include working out averages when processing data from practicals, rearranging equations like magnification.		
SMSC	Discussions on the causes of variation, looking at the impact of humans on ecosystems		
Units:	Introduction to Science, Cells to Systems, Particle Model	Forces and Motion, Human Reproduction, Atoms and Elements	Separating Mixtures, Movement, Energy Transfer
Content:	What is Science? Lab safety, how to identify and use lab equipment. What are cells?, Viewing cells under the microscope, Animal and Plant cells, Functions of organelles, Organisation of cells, tissues, organs and organ systems Solids, Liquids and Gases, Density, Changing state, Water as an anomaly	What are forces? Contact vs Non-contact, Representing and measuring forces, Balanced and Unbalanced forces, Newton’s first law, Friction The Reproductive systems, The Menstrual cycle, Gametes and Fertilisation, Pregnancy and Birth Atoms, Elements and Compounds, What do symbols on the Periodic table show us?	What is a pure substance?, Mixtures vs Compounds, Filtration, Evaporation, Distillation, Chromatography The skeleton, Joints, Antagonistic muscle action, Biomechanics Energy Stores and Pathway, Energy in Food, GPE, KE, Heat Transfer and Insulation
Delivery	Autumn 1	Autumn 2	Spring 1
Units:	Sound, Chemical Reactions	Current Electricity, Inheritance	Acid and Alkalis, Interdependence,
Content:	What are sound waves?, How sound travels, Speed of sound, How we hear sounds, Frequency and Pitch What happens in a chemical reaction?, Combustion, Oxidation, Thermal decomposition, Displacement	Conductors and Insulators, Static electricity, Current electricity, Current and Potential difference, Series and Parallel circuits, Resistance What is DNA, Discovery of DNA, DNA, Genes and Chromosomes	What are acids and bases?, Indicators, The pH scale, Making salts, Neutralisation Ecosystems, Food chains and Food webs, Changes to food webs, Sampling, Environmental impact
Delivery	Spring 2	Summer 1	Summer 2
Learning:	A wide range of practical investigations are undertaken. Discussion, debates and research tasks form a large part of the course where students can learn and share ideas.		
Support (SEND):	Students of all abilities and capabilities are supported within the course through differentiated lessons and activities.		
Challenge (Most Able):	Providing students with opportunities to undertake independent investigations and research takes away the ceiling of what students can learn in Science. This is something we encourage with students to challenge themselves as much as possible		
Work Related Learning:	Interpreting graphs, analysing data and working together in groups safely and effectively are part of our programme. Links to relevant careers are made during lessons.		
Equipment:	The Science Labs all have the necessary equipment to undertake all the experiments. Students will need a pen, pencil, rubber, ruler, calculator and maths set.		
Extra-Curricular:	Science Club, CREST award		