	Topic title	SUMMARY OF KNOWLEDGE ACQUISTION	APPROXIMATE DURATION (Lessons)	Term 1a								Term1b								Term 2a						Term 2b						Term 3a					Term 3b					
				1	2	3	4	5	6	7	8	1	2	3	4	5	6	7		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	1	2	3	4	5	6	7
Year 7																																										
1M	Passport	Introduction: safe lab work, common equipment and key scientific language	9																																							
2M	Earth and Universe	This topic includes the planets of our solar system, night and day, seasons and the moon.	12																																							
3M	Particle Model and Mixtures	This topic includes the particulate nature of matter, solids, liquids and gases.	10																																							
4M	Sound Waves	This topic includes waves transferring energy, sound waves, decibels, noise pollution and hearing.	10																																							
5M	Light Waves	This topic includes waves transferring energy, light waves, relection and refraction.	9																																							
6M	Acids and Alkalis	This topic includes types of acids and alkalis, inicators and neutralisation.	9																																							
7M	Electrical Circuits	This topic includes circuit diagrams, common electrical components, making circuits, parallel circuits and series circuits	9																																							
7M	Cells	This topic includes microscopes, animal cells, plant cells, oraganelles, tissues and organs.	10																																							
8M	Separating mixtures	Solubility, separating rocksalt. Distillation, chromatography.	12																																							
10M	Metals and Non-metals	This topic includes the periodic table, the properties of metals and non-metals and the uses of metals and non-metals.	12																																							
11M	Speed and Gravity	This topic includes gravity, ditance and time graphs, speed and time graphs and calculating speed.	10																																							
1S	Genes and Variation	This topic includes defining variation, continuous variation and discontinuous variation.	6																																							
2S	Human Reproduction	This topic includes the male and female reproductive organs, fertilisation, pregnancy and the menstrual cycle.	8																																							
3S	Energy Transfer	This topic includes types of energy, energy transfer, renewable and non-renewable energy.	6																																							
4S	Energy Cost	This topic includes enrgy transfer, energy cost and efficiency.	6																																							
5S	Ecosystems	This topic includes adaptions, food chains, food webs and bioaccumulation.	8																																							
6S	Speed and Gravity	This topic includes gravity, ditance and time graphs, speed and time graphs and calculating speed.																																								
Year 8																																										
1M	Periodic Table	This topic includes elements, atoms, Gp I, Gp VII, compounds and mixtures.	12																																							
2M	Types of Reaction	This topic includes combustion, the fire triangle, the reavtions of metals and displacement reactions.	12																																							
3M	Systems	This topic includes digestive system, enzymes, food tests and balanced diets.	12																																							
4M	Forces - contact	This topic includes balanced and unbalanced forces, resultant forces and friction.	9																																							
5M	Forces - pressure	This topic includs the definition of pressure, calculatong pressure and pressure of gases and liquids.	9																																							
6M	Genes and Evolution	This topic includes genetic variation, environmental variation, natural selection, genetic cross diagrams, biodiversity and extinction.	9																																							
7M	Energy Changes in Reactions	This topic includes endothermic reactions, exothermic reactions and the conservation of mass.	9																																							
8M	Respiration and Movement	This topic includes the respiratory system, aerobic respiration, anaerobic respiration and the skeletal sysytem.	9																																							
9M	Waves and EM Spectrum	This topic includes types of wave, longitudinal waves, ultrasound, the electromagnetic spectrum and using an oscilloscope.	6																																							
10M	Genes Inhertiance	DNA organisation, sexual reproduction, inhertiance, genetic disorders.	8																																							
11M	Energy - Heating and Cooling	This topic includes states of matter, conduction, convection and radiation.	9																																							
12M	Investigations	Embedding the use of scientific language in practical contexts.	9																																							
1S	Photosynthesis	This topic includes the process of photosynthesis, factors which affect photosynthesis and the structure of a leaf.	12																																							
2S	Earth Structure	This topic includes the structure of the Earth, types of rock, the rock cycle and the carbon cycle.	6																																							
3S	Climate Change	This topic includes greenhouse gasses, global warming, renewable energy and sustainability.	9																																							
4S	Magnets and Electromagnets	This topic includes magnetic materials, making electromagnets the application of electromagnets.	8																																							
5S	Investigations	Embedding the use of scientific language in practical contexts.	3																																							

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Year 9																																										
1	Physics - Particle Model	This topic includes states of matter, density, internal energy, sepcific latent heat, specific heat capacity and gases	13																																							
2	Chemistry - Atomic Structure	This topic includes separation techniques, structure of the atom, the development and structure of the periodic table	16																																							
3	Biology - Cell Biology	This topic includes plant and animal cell biology, microscopy, mitosis, DNA and cancer, transport in cells	16																																							
4	Physics - Radiation	This topic includes atomic structure, types of radiation and uses, half life and decay equations	14																																							
5	Chemistry - Chemical changes	This topic includes metals, acids, neutralisation	12																																							
6	Chemistry - Organic chemistry	This topics includes products from oil, fractional distillation and hydrocarbons	6																																							
7	Chemistry - Atmosphere	This topic includes composition and evolution of the atmosphere, global warming and climate change	10																																							
8	Chemistry - Analysis	This topic includes gas tests and chromatography	4																																							
9	Biology - Bioenergetics	This topic includes respiration and photosynthesis	9																																							
10	Biology - Organisation	This topic includes plant structure and function, xylem, phloem, stomata and transpiration	6																																							
11	Physics - Energy	This topic includes energy stores and transfers, GPE and KE calculations, renewable and non renewable energy	13																																							
12	Practical Skills	This topic includes key practical skills and applying them to practical work, eg, Hooke's Law	12																																							