(Science/Combined) Long-Term Plan

Ousedale School
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Long-term planning (LTPs) - Planning how the key concepts, knowledge, skills identified in the Progression map will be delivered termly per year group
Ensuring that end points & NC/spec are covered
Identifying what assessments are planned and when
Ensuring whole school intent priorities to be planned for

(Year 10 Combined science)						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Unit title:	C3 Structure and Bonding/ B5 Communicable diseases/ B6 Preventing disease	B7 Non-communicable diseases/ C4 Chemical calculations/ P4 Electrical circuits/ P5 Electricity in the home/ P6 Molecules and matter	P7 Radioactivity/ C5 Chemical changes / C6 Electrolysis	B8 Photosynthesis/ B9 Respiration/ C7 Energy changes/ B16 Adaptations, independence and competition	B17 Organising an ecosystem/ B18 Biodiversity and ecosystems/ P8 Forces in Balance	P9 Motion/ C8 Rates/ C9 Crude oil/ P10 Forces
Unit length:	10/7/4	5/4/5/5/6	5/7F8H/4	5/4/3F4H/8	3/5/6	4/6F9H/4/4F5H
Key concepts:	Bonding, structure, and the properties of matter/ Pathogens are microorganisms (e.g. viruses, bacteria) that cause infectious diseases in animals and plants/ The body uses barriers against pathogens but once inside, the immune system destroys the pathogen	The effect of lifestyle on some non-communicable diseases/ quantitative analysis to determine the formulae of compounds/ Current, potential difference and resistance/ Domestic uses and safety/ predict the behaviour of solids, liquids and gases	Ionising radiation is hazardous but can be very useful. Understand the structure of atoms, nuclear forces and stability/ Predict exactly what new substances would be formed using a wide range of different materials and processes/ ionic compound in water, the ions are free to move about and are able to conduct electricity	Plants harness the Sun's energy in photosynthesis in order to make food/ Animals and plants use oxygen to oxidise food in a process called aerobic respiration which transfers energy/ Interaction of particles often involves transfers of energy due to the breaking and formation of bonds/species live in ecosystems composed of complex	How humans are threatening biodiversity as well as the natural systems that support it/ Consider some actions we need to take to ensure our future health, prosperity and well-being/How forces interact with each other to remain in balance	How forces interact with each other to cause movement/ Chemical reactions can occur at vastly different rates/ Carbon compounds - organic compounds are living, or once-living materials from plants and animals including fossil fuels/ Use the information on forces to calculate stopping distances

				communities of animals and plants dependent on each other and that are adapted to particular conditions, both abiotic and biotic.		
Knowledge/ Skills:	MS 5b; Visualise and represent 2D and 3D forms including two dimensional representations of 3D objects; WS 1.2; MS 4a; MS 1a, 1c; WS 1.4; Evaluate the global use of vaccination in the prevention of disease; WS 1.6 Understand that the results of testing and trials are published only after	WS 1.4; WS 1.3; MS 2c, 2g, 4a; MS 2d; WS 1.5; MS 2g; WS 1.2; AT 1, 2,6; WS 3.4; MS 3b, c; MS 4c, 4d, 4e; AT 7; MS 1a, b, c, 3b, c	MS 1b; WS 4.4; WS 4.1; WS 1.1, 1.6; WS 1.2; WS 1.4, 1.5; MS 1c, 3c; MS 4a; AT 6; AT 3; MS 2h	MS 1a, 1c, 2c, 3d, 4a, 4c; MS 3a, 3d; WS 1.4; AT 1, 2, 3, 4, 5, 6; WS 2.6; WS 1.2; MS 2b, 2f, 4a, 4c;	MS 2b, 2f, 4a, 4c; WS 1.2; WS 1.3, 1.4, 1.5, 1.6; MS 3a, b, c; MS 4a, 5a, b	MS 3b, c; WS 4.5; MS 1c; MS 4a; WS 3.5; AT 1, 2; MS 1a, c, 2f; MS 4b, c, d, f; WS 3.3; WS 4.2; WS 3.5, 3.7; WS 1.5, 2.2; MS 1c, 1d, 2c, 2d, 2f, 2h, 3b, 3c; MS 4e; MS 5c; MS 1c; AT 5;
End points covered:						
NC/Spec coverage:	5.2/4.3.1	4.2.2.4- 4.2.2.7/ 5.3/ 6.2.1- 6.2.2 / 6.2.3	6.4/5.4/5.4.3	4.4.1/4.4.2/5.5/4.7.1	4.7.2/4.7.3/ 6.5.1	6.5.2/ 5.6/ 5.7 / 6.5.3
Cross-curricular links:	Maths – shapes links Resistant bacteria	PE/Health and fitness Maths – calculating quantities	6.4 overlaps with 5.1 Atomic structure	4.7.1 overlaps with 5.9.3.1 Atmospheric; and Some overlap with physical geography	4.7.2/4.7.3 overlap with physical geography	Information from highway code such as stopping distances
Assessments:	EoU tests PRs	EoU tests PRs	EoU tests PRs	EoU tests PRs	EoU tests PRs	EoU tests PRs

	MOCKs GCSE exams	MOCKs GCSE exams	MOCKs GCSE exams	MOCKs GCSE exams	MOCKs GCSE exams	MOCKs GCSE exams
Other school intent priorities						
New experiences – broadening horizons	The way everyday objects are bonded/Range of infectious diseases that you may come across in life/Ways in which the body can defend itself – including vaccines.	Lifestyles and it effect on the body/electrical appliances at home	The consequences of nuclear disasters, but also the uses of radiation in medicine.	How plants make their food, and how we use that food to provide ourselves with energy. How the environment around us interacts with each other.	How we interact with the environment around us and how to improve biodiversity and save the environment.	How we interact with the forces in our environment including driving and the forces impacts on stopping distances.
Developing character – *Kind, Hard Working, Successful*						
Context specific need – diversity, inclusion; reading, literacy; mental health						
Curriculum Careers - Gatsby 4	Virologist, microbiologist, Immunologist, doctor	Doctor, Chemist, Electrician	Radiographer, doctor	Ecologist	Ecologist	Driving instructor, crash test technician, Geologist (Oil)