Class of 2026/2027 Curriculum Map/Gatsby

Science

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Post 16 Study	Post 16 study: Students can go onto study A level Biology, Chemistry or Physics will need to continue to develop their scientific thinking skills, expand and apply their experimental skills, become more critical with their evaluations and finally continue to develop their vocabulary and associated nomenclature. Some may continue their journey via a colleges offering vocational qualifications. Those who do not want to commit to full-time education would be able to take on an apprenticeship combining on the job practical skills and college based theory for their application.																																						
Year 11	11.1/11.2 Factors affecting photosynthesis and plant transport		11.1/11.2 properties of waves in the electromagnetic		10.1 Calculations involving masses. Wk 7 Assessment week			11.4 Respiration and exercise.		11.3/11.3/11.5 Forces,workdone, momentum,motion and effects.		10.6 electrolytic processes Wk 14 Assessment week December Mocks for Biology, Chemistry and Physics			11.5/11.6 Hormones, menstrual cycle and controlling		11.6/11.7/11.8 Magnetism, electromagnetism and		11.5/11.7 Heat energy changes and reversible reactions.		11.8 Gas exchange and circulation		11.9/11.10 Radioactive emissions, half lives and dangers	11.8 Earth and atmosphere Wk 26 Assessment		11.9 Ecosystems and material cycles			11.10 Human influences on ecosystems Prep for Summer Exams				Final exam prep and revision						
	Personal - Encourage students to think about STEM links during lessons. This happens during topics like 'control and homeostasis', providing discussion for how our hormones control us, and how the medical profession help us to keep functioning well. Social - Attend science clubs linked to STEM or just for fun. Students have the opportunity to share their views on their own science lessons. Discussions around IVF, consider treatment for post heart-attack patients to how we need to find alternatives for hydrocarbon fuel. Physical - Apply knowledge, visit industry, museums or set up events to share your enthusiasm. We link this to how we maintain health by immunisation (CB5), impact of non-communicable disease like drugs/alcohol (CB5), how our hormones don't always work the way we want to (CB7). We study heart health and how the medical profession treats patients (CB8) Spiritual - Science encapsulates everything in the world from what is within us and around which has yet to be discovered. Discussion starts with evolution (CB4) in Year 10 and genetics (CB3) in year 9. Students will have studied astronomy in Year 8 (8L), specifically our solar system and the potential reach of infinite space. Moral - Consider the responsibility of Science ethically and morally. This is taught through topics on organ transplants (7a), genetics (CB3), mutation, developing drugs (CB5) and stem cells (CB2) Cultural - Belief systems, poverty and wealth may give us a different experience of science. This is taught when looking at the history of science, Mendeleev and development of the periodic table (CC4), theories of evolution- Lamarck/Darwin (CB4), the latter drawing on viewpoints at the time linked to religion and humanities perception of evolution.																																						
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Year 10	10.1/10.2 Waves and measurements of speed, refraction and		10.1 Nervous system		10.2 Groups in the periodic table. Wk 7 Assessment week			10.3/10.4 Forces, work done, energy, power and efficiency.		10.3/10.4 Mitosis, growth, stem cells and specialisation Wk 14 Assessment week					10.3 Salt preparations			10.4 Fuels Wk 20 Assessment week			10.5/10.6/10.7 Electric circuits, uses of electricity, power, domestic supply and static electricity.			10.5/10.6 Pathogens, disease, medicines and non communicable disease.		10.9/10.10 metals, obtaining and using metals, life cycle assessments			10.8 Density and change of state Wk 32 Assessment week.			10.10 Gases		10.9 Specific latent heat/heat capacity		10.9 Genetics, inheritance, variation, evolution and genetic		
	Building Cultural Capital Personal - Encourage students to think about STEM links during lessons. This will be discussed in topic CB5- Health, Disease and the Development of Medicines. This topic opens discussions to jobs in the health-care sector from nurses, mid-wives, doctors, GP's and specialist consultants. Social - Attend science clubs linked to STEM or just for fun. Students are invited to share their views via 'Student Voice'. Discussions in class with regards to communicable diseases, especially as we traverse through a 'pandemic'. Physical - Apply knowledge, visit industry, museums or set up events to share your enthusiasm. We link this to how we maintain health by immunisation (CB5), impact of non-communicable disease like drugs/alcohol (CB5). We explore the mechanism that allows us to interact with the world around us (CB2) Spiritual - Science encapsulates everything in the world from what is within us and around which has yet to be discovered. Discussion starts with evolution (CB4) in Year 10 and genetics (CB3) in year 9. Students will have studied astronomy in Year 8 (8L), specifically our solar system and the potential reach of infinite space. Moral - Consider the responsibility of Science ethically and morally. This is taught through topics on organ transplants (7a) in Year 7, genetics (CB3), mutation, developing drugs (CB5) and stem cells (CB2) in Year 10 Cultural - Belief systems, poverty and wealth may give us a different experience of science. This is taught when looking at the history of science, Mendeleev and development of the periodic table (CC4) Yr 9, theories of evolution- Lamarck/Darwin (CB4) Yr10, the latter drawing on viewpoints at the time linked to religion and humanities perception of evolution.																																						
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Year 9	9.1 Atomic structure		9.1 Describing atoms		9.1/9.2 Variation, adaption, evolution and extinction Wk 7 Assessment week			9.2/9.3 Water and separations.		9.2/9.3 Heat energy transfer, Energy and efficiency Wk 14 Assessment week					9.3 Digestion			9.4/9.5 Bonding and the periodic table Wk 20 Assessment week			9.4 Describing motion, forces and matter.			9.4/9.5/9.6 The nucleus, prokaryotic, eukaryotic cells and microscopy and magnification		9.6/9.7 The PH scale , further reactions of acids.			9.5 Waves and the electromagnetic spectrum Wk 32 Assessment week			9.7/9.8 The movement of substances and enzymes.		9.9 Dietary components		9.8 Solving problems with chemistry Wk 39 Assessment		
	Building Cultural Capital Personal - Encourage students to think about STEM links during lessons. External visits, 'Big-Bang', exploring STEM subjects as they approach their options in this academic year. This has discussed careers in the forces, NHS, engineers, with emphasis on encouraging females to consider traditionally male roles. Variation (Cb3), digestion (CB1) EM spectrum (CB5). Teachers with past science outside of teaching, have often, first-hand experience of other notable professions in the medical or environmental world. Social - Attend science clubs linked to STEM or just for fun. Students are invited to share their views via 'Student Voice'. Discussions in class with regards to communicable diseases, especially as we traverse through a 'pandemic'. Microscopes- cells, first covered in Year 7 (7a) and again in Year 9. Lego engineers, a club where students have the opportunity to build, design projects that they will create. Physical - Apply knowledge, visit industry, museums or set up events to share your enthusiasm. We explore the atom in more detail, link to particle theory CC3) and discover how we can observe particles in different states of matter (CC1-2) Spiritual - Science encapsulates everything in the world from what is within us and around which has yet to be discovered. Discussion starts with the discovery of the atom, how its perception has changed over time (CC3-4) cumulating with understanding how 'Electro-magnetic spectrum' (CP4-5) allows us to communicate here and potentially in space. Moral - Consider the responsibility of Science ethically and morally. This is taught through topics on the uses of the electro-magnetic spectrum (CP4-5), the impact it can have on cells (CB1), ideas of cell structure first introduced in 7a in year 7 Cultural - Belief systems, poverty and wealth may give us a different experience of science. This is taught when looking at the history of science, Mendeleev and development of the periodic table (CC4) Yr 9, theories of evolution- Lamarck/Darwin (CB4) Yr10, the latter drawing on viewpoints at the time linked to religion and humanities perception of evolution.																																						
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Year 8	8.1 Food groups and deficiency diseases		8.1 atoms and elements		8.1 Solids, liquids and gases Wk 7 Assessment week			8.2 Ventilation 8.3 Drugs		8.2 Physical and chemical changes Wk 17 Assessment week					8.2/ 8.3 Light and sound			8.4/8.5 Respiration, unicellular organisms and diffusion Wk 20 Assessment week			8.3 Reactions of acids			8.5/8.6 Metals and alloys, Reaction of metals. Wk 26 Assessment week		8.4/8.5/8.6 Static electricity, Earth and space, Magnets and Electromagnets			8.8 Human Impact Wk 32 Assessment week			8.6 Photosynthesis		8.7 Plant reproduction		8.4 combustion Wk 39 Assessment week		
	Building Cultural Capital Personal - Encourage students to think about STEM links during lessons. This can be discussed in Light and Sound (8a/8j) links how sound travels, role of sound engineers, optical application, Opticians, Ophthalmologists, consultants who remove cataracts using phacoemulsification. Social - Attend science clubs linked to STEM or just for fun. Students are invited to share their views via 'Student Voice'. Science clubs for Year 7-8 allowing to explore ideas and carry out practicals to answer curious questions. Lego club- engineers attend gradually learning to follow careful instruction to build a working model. Physical - Apply knowledge, visit industry, museums or set up events to share your enthusiasm. We teach the importance of diet and potential deficiencies due to the lack of specific nutrients (8a). Respiration is explored linking it to human health (8c). Spiritual - Science encapsulates everything in the world from what is within us and around which has yet to be discovered. Students consider how Earth is orbit of a star, and the bigger picture looking at exploring the Earth's position in the Solar system and beyond (8l) Moral - Consider the responsibility of Science ethically and morally. This is taught through by discussing 'human impact' on the environment (8e) and how we should mitigate the damage we are leaving in our wake. Cultural - Belief systems, poverty and wealth may give us a different experience of science. This is taught when looking at the history of science, Mendeleev and development of the periodic table (8f) and the work Dalton did on the atomic model (8f)																																						
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Year 7	7.1B /7.2B Introduction to microscopy and cells and unicellular organisms		7.1C/7.2C/7.3C solids, liquids and gases, solutions and mixtures.		7.4B Energy stores and transfers 7.1B measuring density		Cumulative assessment for	7.3B/ 7.4B Reproductive systems, gestation and		Lab skills		7.4C Acids and alkalis/ 7.5C Neutralisation			7.2P Different forces/7.2P Floating and stretching		Cumulative assessment for	7.5B Movement			7.3P Pressure			7.1P Measuring density		Science Week	7.6B Ecosystems	7.6B Ecosystems	7.7B Biodiversity and human influence			Cumulative assessment for	7.6B Earths atmosphere		7.5P Understanding waves		7.4P Current and electricity		7.2C/7.3C mixtures and solutions		
	Building Cultural Capital Personal - Encourage students to think about STEM links during lessons. As they begin their journey with us we explore the different disciplines and link to potential careers. Aim of this is to ignite a spark by offering Science club for them to channel their inner scientist. Social - Attend science clubs linked to STEM or just for fun. Students are invited to share their views via 'Student Voice'. Science clubs for Year 7-8 allowing to explore ideas and carry out practicals to answer curious questions. Physical - Apply knowledge, visit industry, museums or set up events to share your enthusiasm. Students will learn about energy early on, as without energy nothing happens (7l) Students will also learn about the human reproductive cycle (7b) this they will re-visit in Year 11 (CB7) in more detail. Spiritual - Science encapsulates everything in the world from what is within us and around which has yet to be discovered. Students will study biodiversity, understand how the natural world is organised and consider anthropogenic impacts, again how we would mitigate. (7d) Moral - Consider the responsibility of Science ethically and morally. This is taught through by discussing 'human impact' on the environment (7d) and how we should mitigate the damage we are leaving in our wake. Cultural - Belief systems, poverty and wealth may give us a different experience of science. This is taught when looking at the history of science, Alexandro Volta 1800 make the first electric cell (7j)																																						
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Pre-secondary	**Building Cultural Capital** **Personal - Encourage students to think about STEM links** **Social - Attend science clubs linked to STEM or just for fun** **Physical - Apply knowledge, visit industry, museums or set up events to share your enthusiasm** **Spiritual - Science encapsulates everything in the world from what is within us and around which has yet to be discovered** **Moral - Consider the responsibility of Science ethically and morally** **Cultural - Belief systems, poverty and wealth may give us a different experience of science**																																						
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	Gatsby Benchmark refs: https://edu.rsc.org/resources/improving-engagement-with-good-practical-science-gatsby-benchmark-action-planning-pack/4012126.article https://www.gatsby.org.uk/uploads/education/reports/pdf/good-practical-science-8-page-summary.pdf																																						