

Curriculum Intent for Science

Our Science curriculum aims to deliver powerful knowledge and understanding that can change lives and is vital to the world's future prosperity. Students will develop their curiosity about the natural world, gain an insight into how science works and develop an appreciation of its relevance to their everyday lives.

The curriculum builds a strong, scientific understanding of key concepts whilst also incorporating the development of literacy and mathematical skills. Mathematical skills are developed by using a common approach in Maths and Science. Purposeful, safe practical work enhances students' knowledge of scientific ideas and engages them in the processes of science and how it is applied to their everyday lives. Core practicals in every KS3 topic develop 'working scientifically' skills and are used to prepare students for the skills and analysis they will need to access the more demanding aspects of KS4 practical work.

To enable our students to learn and remember more, we have produced a carefully sequenced spiral curriculum which revisits expected prior knowledge to develop deeper understanding. The curriculum sequence has been developed collaboratively by specialist subject teachers so that consistently high-quality lessons can be delivered by all teachers across the department.

The scientific requirements of the new GCSEs are to be integrated into KS3. Language and teaching approaches are consistent with those science topics, so they are familiar to students. At Todmorden High School, literacy is viewed as the key to all learners achieving their unique potential. Within the Science department, key scientific terms are explicitly taught to develop student understanding.



Combined Science KS4 HT3

	School Week No.	16	17	18	19	20	21	Half-term
Year 10 combined science	Topic	CP Topic 6 Radioactivity (10)		CC10-12 Electrolytic Processes, Metals and equilibria (12)				Half-term
	Assessments Scientific Literacy (SL) Calculation (Calc) Summative (Sum)	SL Structure of the atom.				SL Electrolysis of molten sodium chloride.		Half-term
	Home-Learning Due in	SU2GCSE 25 GPE	IP SU2GCSE 27 Efficiency	Carousel 17	IP SU2GCSE 36 wave equation	Carousel 18	Carousel 20	Half-term
Y11 combined science	Topic	Revision for mocks	Y11 Full Mocks	Y11 Full Mocks	CC16-17 - Fuels, Earth and Atmospheric Science (12)			Half-term
	Assessments Scientific Literacy (SL) Calculation (Calc) Summative (Sum)		Y11 Full Mocks	Y11 Full Mocks		SL CC16 Crude Oil		Half-term
	Home-Learning Due in	Carousel 15	Carousel 16	Carousel 17	Carousel 18	Carousel 19	Carousel 20	Half-term

Combined Science KS4 HT4

	School Week No.	21	22	23	24	25	Easter
Year 10 combined science	Topic	Consolidation Week Complete and Mark C1 paper at home and mark in class?)	Summative Ass 2 C1 Past paper in 2 halves		CP topic 2 part 2		Easter
	Assessments Scientific Literacy (SL) Calculation (Calc) Summative (Sum)		Summative Ass 2 c1 Past paper in first half	Summative Ass 2 C Past paper 2nd Half			Easter
	Home-Learning Due in	Carousel 20		Carousel 22	IP 8 speed distance Time	Carousel 24 CP Topic 2 QQ1	Easter CP Topic 2 QQ2
Y11 combined science	Topic	CB7 Animal Co-ordination and Homeostasis (12)			CP12-13 Particle Model, Forces and Matter (10)		Easter
	Assessments Scientific Literacy (SL) Calculation (Calc) Summative (Sum)			SL CB7 Control of Blood Sugar		Calculations No 5 SHC and Power	Easter
	Home-Learning Due in	Carousel 20	Carousel 21	Carousel 22	Carousel 23	Carousel 24	Easter

Combined Science KS4 HT5

		School Week No.	26	27	28	29	30	31	32	Half-term
Year 10 combined science	Topic		CP topic 2 part 2	CP10 - Electricity and Circuits				Consolidation Week		
	Assessments Scientific Literacy (SL) Calculation (Calc) Summative (Sum)		SL Topic 2 Stopping Distances			SL CP10 Electricity and circuits	Calc Ass No 7 VI and R			
	Home-Learning Due in		IP 11 acceleration	Carousel 26 CP Topic 4 QQ	IP 12 V-t graphs	Carousel 28 CP Topic 5 QQ	IP 13 F=Ma	Carousel 30 CP Topic 6 QQ	IP 33 Work Energy and Power	
Y11 combined science	Topic		CP12-13 Particle Model, Forces and Matter (10)	Topic 10 Magnetism and Electromagnetic induction (6)		Consolidation	GCSE Exams START			Half-term
	Assessments Scientific Literacy (SL) Calculation (Calc) Summative (Sum)		SL Describe how to determine the SHC of oil.				Exam dates are provisional	Exam dates are provisional	Exam dates are provisional	Exam dates are provisional
	Home-Learning Due in		Carousel 25	Carousel 26	Carousel 27					

Combined Science KS4 HT6

	School Week No.	33	34	35	36	37	38	39	Summer
Year 10 combined science	Topic	Revision	Summative Ass 3 Y10 Mock Exam P1 PLUS CHEMISTRY CALCULATIONS SHEET		CB 6 Plant Structure and Function (9)			GAP CLOSING 10- ->11	
	Assessments Scientific Literacy (SL) Calculation (Calc) Summative (Sum)		Summative Ass 3 Y10 Mock Exam P1	Y10 Mock Exams week P1			SL CB6 Limiting Factors		
	Home-Learning Due in	Carousel 32	IP53 Half-life	Carousel 34	Carousel 35	Carousel 36	Carousel 37		