UDLEY ACADEMIES TRUST

CURRICULUM INTENT STATEMENT

SCIENCE

The vision of this faculty is that together, with families and the local community, we are dedicated to helping young people to develop a lifelong love of learning for Science and the confidence to not just navigate the scientific world, but to shape it.

Science plays a very important part of the curriculum because it links to learners' lives in terms of medicine, technological change and their own health. Understanding Science is crucial in helping learners to understand where Physics, Biology and Chemistry is in their homes, in their academy and their community. The subject of Science prepares learners for the "next stage" because everything in Science has an impact on what learners say and do. It is not meant to limit innovation or prescribe how the curriculum is taught.

Science is taught through 12 big ideas linking Biology, Chemistry and Physics that support learner progression through years 7 to 11, taking in to account prior learning. The big ideas help to define the ultimate goal of the Science curriculum, they provide a framework to help learners organise knowledge. This framework directly supports what we know about how learners learn in science e.g. grouping related ideas together, moving from concrete to abstract ideas and revisiting and building upon the same idea multiple times. The big ideas are sequenced through a spiral curriculum to enable depth before breadth, this is to prepare learners to develop critical thinking, create solutions and decision making; required practical's play an integral role in developing these skills. Practical science allows learners to cultivate curiosity, construct hypothesises, observe and record data; subsequently to analyse and evaluate the scientific method.

Dreaming big	Rewarding effort	Leading together	Respecting each other and our world	Learning that inspires
All learners will have curiosity created by the effective delivery of the Science Curriculum. Real life links will promote science and science related careers. Learners take ownership of learning and know how to progress through effective feedback	Cross Trust Competitions Creating safe learning environment where learners feel ok to 'fail'. Celebrating success at every level and realising that success looks different.	Peer Assessment Discussion of topics where different opinions are respected and encouraged. Learners to realise what they need to do to progress and take ownership of their learning. Cognitive load is minimal and cross curricular links are established taking in to account whole trust strategies	Verbal feedback and discussion is encouraged in lessons. Opposing views are not only tolerated but respected and understood. All forms of feedback (peer, self etc.) are acted on and understood. Teaching includes real world examples around conservation, sustainability and recycling.	Curriculum is knowledge rich and spiral in nature building on preconceptions. Challenge is appropriate to the individual and is an integral part of the scheme of work. Literacy and the meaning of terms is implicitly taught.

Year 7

	SEPTEMBER					OCTOBER				NOVEMBER					DECEMBER				JANUARY				FEBRUARY				MARCH					APRIL				MAY					JUNE				JULY		
Date	31 August 2020	07 September 2020	14 September 2020	21 September 2020	28 September 2020	05 October 2020	12 October 2020	19 October 2020	26 October 2020	02 November 2020	09 November 2020	16 November 2020	23 November 2020	30 November 2020	07 December 2020	14 December 2020	21 December 2020	28 December 2020	04 January 2021	11 January 2021	18 January 2021	25 January 2021	01 February 2021	08 February 2021	15 February 2021	22 February 2021	01 March 2021	08 March 2021	15 March 2021	22 March 2021	29 March 2021	05 April 2021	12 April 2021	19 April 2021	26 April 2021	03 May 2021	10 May 2021	17 May 2021	24 May 2021	31 May 2021	07 June 2021	14 June 2021	21 June 2021	28 June 2021	05 July 2021	12 July 2021	19 July 2021
Teaching Topic	B1 Cells and Organisation					C1 The Particle Model				C1 The Particle Model			P1 Energy					B2 Reproduction				C2 Atoms Elements Compounds and Mixtures			C2 Atoms Elements Compounds and Mixtures	P2 Forces							B3 Nutrition and Digestion			C3 Chemical Reactions				C3 Chemical Reactions				P3 Motion		

Year 8

	SEPTEMBER					OCTOBER				NOVEMBER					DECEMBER				JANUARY				FEBRUARY				MARCH					APRIL				MAY					JUNE				JULY		
Date	31 August 2020	07 September 2020	14 September 2020	21 September 2020	28 September 2020	05 October 2020	12 October 2020	19 October 2020	26 October 2020	02 November 2020	09 November 2020	16 November 2020	23 November 2020	30 November 2020	07 December 2020	14 December 2020	21 December 2020	28 December 2020	04 January 2021	11 January 2021	18 January 2021	25 January 2021	01 February 2021	08 February 2021	15 February 2021	22 February 2021	01 March 2021	08 March 2021	15 March 2021	22 March 2021	29 March 2021	05 April 2021	12 April 2021	19 April 2021	26 April 2021	03 May 2021	10 May 2021	17 May 2021	24 May 2021	31 May 2021	07 June 2021	14 June 2021	21 June 2021	28 June 2021	05 July 2021	12 July 2021	19 July 2021
Teaching Topic	B3 Nutrition and Digestion					C3 Chemical Reactions				C3 Chemical Reactions			P3 Motion						B4 Genetics and Evolution				C4 The Periodic Table and Reactivity			C4 The Periodic Table and Reactivity	P4 Waves							B6 Bioenergetics - Respiration and Photosynthesis				C6 - Controlling Resources					C6 - Controlling Resources			P5 Electricity		

Year 9

	SEPTEMBER					OCTOBER				NOVEMBER					DECEMBER				JANUARY				FEBRUARY				MARCH					APRIL				MAY					JUNE				JULY		
Date	31 August 2020	07 September 2020	14 September 2020	21 September 2020	28 September 2020	05 October 2020	12 October 2020	19 October 2020	26 October 2020	02 November 2020	09 November 2020	16 November 2020	23 November 2020	30 November 2020	07 December 2020	14 December 2020	21 December 2020	28 December 2020	04 January 2021	11 January 2021	18 January 2021	25 January 2021	01 February 2021	08 February 2021	15 February 2021	22 February 2021	01 March 2021	08 March 2021	15 March 2021	22 March 2021	29 March 2021	05 April 2021	12 April 2021	19 April 2021	26 April 2021	03 May 2021	10 May 2021	17 May 2021	24 May 2021	31 May 2021	07 June 2021	14 June 2021	21 June 2021	28 June 2021	05 July 2021	12 July 2021	19 July 2021
Teaching Topic	Cell Biology					Atomic Structure and the Periodic Table				Atomic Structure and the Periodic Table			Energy						Energy				Organisation											Particle Model of Matter								Particle Model of Matter		Structure and Bonding				

Year 10/11 GCSE Trilogy

	SEPTEMBER					OCTOBER				NOVEMBER					DECEMBER				JANUARY				FEBRUARY				MARCH					APRIL				MAY					JUNE				JULY		
Date	31 August 2020	07 September 2020	14 September 2020	21 September 2020	28 September 2020	05 October 2020	12 October 2020	19 October 2020	26 October 2020	02 November 2020	09 November 2020	16 November 2020	23 November 2020	30 November 2020	07 December 2020	14 December 2020	21 December 2020	28 December 2020	04 January 2021	11 January 2021	18 January 2021	25 January 2021	01 February 2021	08 February 2021	15 February 2021	22 February 2021	01 March 2021	08 March 2021	15 March 2021	22 March 2021	29 March 2021	05 April 2021	12 April 2021	19 April 2021	26 April 2021	03 May 2021	10 May 2021	17 May 2021	24 May 2021	31 May 2021	07 June 2021	14 June 2021	21 June 2021	28 June 2021	05 July 2021	12 July 2021	19 July 2021
Year 10	Particle model and Atomic structure					Organisation				Quantitative Chemistry		Forces 1			Chemical and Energy Changes				Infection and Response				Bioenergetics			Bioenergetics	Rate and Extent of Chemical Change			Forces 2				Forces 2	Organic Chemistry and Chemical Analysis					Ecology						
Year 11		Homeostasis				Electrolysis				Forces and Motion	Mocks	Mocks	Forces and Motion	Crude Oil and Fuels	Chemical Analysis	Reproduction			Reproduction	Genetics and Evolution						Waves	Earth's Resources			Magnetism and Electromagnetism																		

Year 10/11 GCSE Biology

	SEPTEMBER					OCTOBER				NOVEMBER					DECEMBER				JANUARY				FEBRUARY				MARCH					APRIL				MAY					JUNE				JULY		
Date	31 August 2020	07 September 2020	14 September 2020	21 September 2020	28 September 2020	05 October 2020	12 October 2020	19 October 2020	26 October 2020	02 November 2020	09 November 2020	16 November 2020	23 November 2020	30 November 2020	07 December 2020	14 December 2020	21 December 2020	28 December 2020	04 January 2021	11 January 2021	18 January 2021	25 January 2021	01 February 2021	08 February 2021	15 February 2021	22 February 2021	01 March 2021	08 March 2021	15 March 2021	22 March 2021	29 March 2021	05 April 2021	12 April 2021	19 April 2021	26 April 2021	03 May 2021	10 May 2021	17 May 2021	24 May 2021	31 May 2021	07 June 2021	14 June 2021	21 June 2021	28 June 2021	05 July 2021	12 July 2021	19 July 2021
Year 10	Organisation									Infection and Response									Bioenergetics								Homeostasis									Ecology					Ecology						
Year 11	Homeostasis and Response					Hormonal Coordination				Hormonal Coordination			Homeostasis in action						Reproduction								Variation and evolution			Genetics and Evolutions				Genetics and Evolution		Revision Triage (Feedback from mocks used to identify serious gaps and reteach where appropriate).					Revision Triage (Feedback from mocks used to identify serious gaps and reteach where appropriate).						

Year 10/11 Chemistry

	SEPTEMBER					OCTOBER				NOVEMBER					DECEMBER				JANUARY				FEBRUARY				MARCH					APRIL				MAY					JUNE				JULY		
Date	31 August 2020	07 September 2020	14 September 2020	21 September 2020	28 September 2020	05 October 2020	12 October 2020	19 October 2020	26 October 2020	02 November 2020	09 November 2020	16 November 2020	23 November 2020	30 November 2020	07 December 2020	14 December 2020	21 December 2020	28 December 2020	04 January 2021	11 January 2021	18 January 2021	25 January 2021	01 February 2021	08 February 2021	15 February 2021	22 February 2021	01 March 2021	08 March 2021	15 March 2021	22 March 2021	29 March 2021	05 April 2021	12 April 2021	19 April 2021	26 April 2021	03 May 2021	10 May 2021	17 May 2021	24 May 2021	31 May 2021	07 June 2021	14 June 2021	21 June 2021	28 June 2021	05 July 2021	12 July 2021	19 July 2021
Year 10	Chemical changes					Quantitative				Quantitative			Energy Changes						Rate and Extent of Chemical Change								Organic Chemistry								Chemical Analysis						Revision and Review						
Year 11	Electrolysis					Crude oil and Fuels				Chemical Analysis					The Earth's Resources				Using Resources				Organic Reactions				Organic Reactions		Polymers					Revision Triage (Feedback from mocks used to identify serious gaps and reteach where appropriate)					Revision Triage (Feedback from mocks used to identify serious gaps and reteach where appropriate)						

Year 10/11 GCSE Physics

	SEPTEMBER					OCTOBER				NOVEMBER					DECEMBER				JANUARY				FEBRUARY				MARCH					APRIL				MAY					JUNE				JULY		
Date	31 August 2020	07 September 2020	14 September 2020	21 September 2020	28 September 2020	05 October 2020	12 October 2020	19 October 2020	26 October 2020	02 November 2020	09 November 2020	16 November 2020	23 November 2020	30 November 2020	07 December 2020	14 December 2020	21 December 2020	28 December 2020	04 January 2021	11 January 2021	18 January 2021	25 January 2021	01 February 2021	08 February 2021	15 February 2021	22 February 2021	01 March 2021	08 March 2021	15 March 2021	22 March 2021	29 March 2021	05 April 2021	12 April 2021	19 April 2021	26 April 2021	03 May 2021	10 May 2021	17 May 2021	24 May 2021	31 May 2021	07 June 2021	14 June 2021	21 June 2021	28 June 2021	05 July 2021	12 July 2021	19 July 2021
Year 10	Atomic Structure									Forces									Forces								Forces			Waves					Waves					Magnetism and Electromagnetism						
Year 11	Force and Motion					Force and Pressure				Waves: Properties including Sound				Waves: Electromagnetic					Magnetism and Electromagnetism				Light			Light	Space Physics							Revision Triage (Feedback from mocks used to identify serious gaps and reteach where appropriate).					Revision Triage (Feedback from mocks used to identify serious gaps and reteach where appropriate).						