



CHS Curriculum Intent

SUCCESSFUL: Learners who gain deep and powerful knowledge in preparation for life; combining academic rigour, curiosity and creative flair.

CREATIVE: Learners who are imaginative, optimistic and inventive; finding their voice to become effective communicators prepared for lifelong adaptability

HAPPY: Learners who are confident, resilient, well-rounded citizens; they understand the world's communities and are ready to discover their place in it.

CHS Curriculum Area Framework for Learning – Year 8

SUBJECT	Science
INTENT	Students will learn the foundations of chemistry, biology and physics during KS3 and build upon them during KS4, with the intention of raising interest and engagement in the natural world and developing their curiosity.

Year Group	8 VBA					
Rationale/ Narrative	To further develop knowledge in Biology, Chemistry and Physics and to explore and engage pupil's curiosity of the natural world. Students will continue to develop their ability to write and carry out scientific investigations and then explore more fundamental areas of science which include; disease, immunity, diet, health, organ systems, separation techniques, forces, motion and evolution.					
	Autumn 1 – Health, nutrition	Autumn 2 –	Spring 1 –	Spring 2 – Disease	Summer 1 –	Summer 2



CHORLTON HIGH SCHOOL: CURRICULUM

	and organ systems	Forensics (separating techniques, acids and alkalis)	Energy transfer (Transverse and longitudinal waves)	(transmission and immunity)	Genes and Evolution	Motion and Forces (speed and energy transfers)
KNOWLEDGE	<p>Health and Nutrition</p> <p>Diet. Food groups Food tests Diabetes. Digestive system. Modelling the journey of food. Enzyme digestion Respiratory system Gas exchange Impact of exercise Heart</p> <p><i>Drugs (recreational and drugs in sport).</i></p> <p><i>Drugs in sport assessment.</i></p> <p><i>Speech writing</i></p> <p><i>Drugs in sport FBW</i></p>	<p>Forensics</p> <p>Separating Mixtures States of Matter Density Measuring pH Neutralisation Acids and Alkalis Using Indicators</p>	<p>Energy transfer</p> <p>Waves Wave equations Transverse and longitudinal waves Reflection Refraction Dispersion Sound Transfer of sound through matter Light filters Structure of the Ear</p>	<p>Bacterial disease Viral disease Fungal disease Bacterial numeracy Malaria Transmission and defence immunity Spreading microbes Human defence system Defence Vaccination MMR Antibiotics and pain killers MRSA</p>	<p>Genes and Evolution</p> <p>Variation The structure of DNA Genes, chromosomes and the nucleus Genetic modification Selective breeding Natural selection Evolution Extinction Wild life conservation</p>	<p>Motion and Forces</p> <p>Measuring forces Resultant force Friction Gravity Air resistance Hooke's Law Calculating speed Distance time graphs Speed and velocity Acceleration</p>
SKILLS	Students will learn to write persuasive articles.	Students will carry out/write up scientific investigations:	Students will carry out/write up scientific investigations:	Students will carry out/write up scientific investigations:	Students will develop oracy and presentation skills.	Students will learn how to use and apply key terminology and data such as: Repeats



CHORLTON HIGH SCHOOL: CURRICULUM

	<p>Students will learn how to evaluate models and carry out dissections</p> <p>Students will carry out/write up scientific investigations:</p> <ul style="list-style-type: none"> Students will investigate food groups and food tests Students will investigate the pH of different substances Students will carry out filtration and evaporation techniques. Students will learn the importance of sample size when carrying out research projects, and consider factors that might affect a scientific study. (e.g. age/gender etc.) 	<ul style="list-style-type: none"> Students will investigate density Students will investigate the pH of different substances Students will carry out filtration and evaporation techniques. 	<ul style="list-style-type: none"> Students will investigate waves in solids and liquids Students will investigate ray diagrams (reflection and refraction) Students will investigate the speed of sound in air 	<ul style="list-style-type: none"> Students will investigate antibiotics Students will investigate the spread of bacteria Students will investigate how to spread bacteria 	<p>Students will also learn how to write evaluations and comparisons effectively.</p>	<p>Reliability Reproducibility Mean Error Accuracy</p> <p>Students will carry out/write up scientific investigations:</p> <ul style="list-style-type: none"> Students will investigate speed Students will investigate the extension of a spring Students will design and present information about the energy changes in a rollercoaster
ASSESSMENTS	Students will be assessed on: (3 will be selected per term plus Progress test)	Students will be assessed on: (3 will be selected per term plus Progress test)	Students will be assessed on: (3 will be selected per term plus Progress test)	Students will be assessed on: (3 will be selected per term plus Progress test)	Students will be assessed on: (3 will be selected per term plus Progress test)	Students will be assessed on: (3 will be selected per term plus Progress test)



CHORLTON HIGH SCHOOL: CURRICULUM

	<p>Journey of a cheese sandwich</p> <p>Respiratory big write</p> <p>Digestion big write</p>	<p>Separating mixtures assessment</p> <p>Density write up</p> <p>Neutralisation write up</p> <p>EOT</p> <p>Progress check</p>	<p>Waves assessment</p> <p>Conduction practical write up</p> <p>EOT</p>	<p>Defence write up</p> <p>MMR write up</p> <p>EOT</p> <p>Progress check</p>	<p>Inherited disorder write up</p> <p>Extinction assessment</p> <p>EOT</p>	<p>Speed and velocity numeracy</p> <p>GPE and KE write up</p> <p>Progress check</p>
--	--	---	---	--	--	---