

## Netherwood's Science Curriculum

Why is the subject important? (General introduction)	Science enables us to develop our understanding of the world around us and to explain complex phenomena that at first appear difficult to understand. Everything that we now know about the natural world and universe have been developed through scientific research and experimentation.		
	Through scientific advancement we can now explain how the universe has developed, how humans have evolved to become the most intelligent organisms on the planet, as well as enabling us to create the most advanced civilizations with high-tech inventions such as: spaceflight, mobile-phone communication and the internet.		
	Science is one of the oldest academic disciplines and covers a wide variety of subjects and topics. It is one of the STEM subjects (Science, Technology, Engineering and Mathematics), that are widely appreciated as being key subjects for students to study to prepare themselves for the high-tech world and careers of the future.		
YEAR 7			
What will I be studying?	Scientific Skills Forces The Atom The Universe	Bio-reactions The Particle Model Energy Cells	Separating Mixtures Reproduction Acids Electricity
Career Links	Sports scientist Midwife Zoologist	Conservationist Veterinarian Archaeologist	Engineer Astronomer Food Scientist
How will I be assessed?	Progress ladders are completed following each unit. These consist of levelled questions, enabling students to demonstrate the progress that they have made throughout each topic. These are followed by whole-class feedback to support students with making further progress within their highlighted area/s for development. 1/2-termly summative assessments are completed to provide a holistic review of pupil progress and to inform future in-class interventions. Mini-quizzes are set weekly through Educake online learning platform as homework. These quizzes are linked directly to our knowledge organisers.		
Which websites should I use to support my learning?	<a href="#">KS3 Science - BBC Bitesize</a> <a href="#">All subjects - Key Stage 3 - Oak National Academy (thenational.academy)</a>		
YEAR 8			
What will I be studying?	Scientific Skills Organ Systems The Periodic Table Healthy Living	Forces Inheritance Waves Earth	Movement Electricity Chemical Reactions
Career Links	Sports scientist Pharmacist Computer programmer	Electrician Data analyst Veterinarian	Engineer Scientific researcher Food scientist
How will I be assessed?	Progress ladders are completed following each unit. These consist of levelled questions, enabling students to demonstrate the progress that they have made throughout each topic. These are followed by whole-class		

	feedback to support students with making further progress within their highlighted area/s for development. 1/2-termly summative assessments are completed to provide a holistic review of pupil progress and to inform future in-class interventions. Mini-quizzes are set weekly through Educake online learning platform as homework. These quizzes are linked directly to our knowledge organisers.		
Which websites should I use to support my learning?	<a href="#">KS3 Science - BBC Bitesize</a> <a href="#">All subjects - Key Stage 3 - Oak National Academy (thenational.academy)</a>		
YEAR 9			
What will I be studying?	Cells Chemical Reactions Electromagnetism Energy	Metals and Non-metals Forces Interdependence	Waves Inheritance The Periodic Table
Career Links	Sports scientist Midwife Materials Chemist	Conservationist Archaeologist Ecologist	Agriculturist Scientific researcher Food scientist
How will I be assessed?	Progress ladders are completed following each unit. These consist of levelled questions, enabling students to demonstrate the progress that they have made throughout each topic. These are followed by whole-class feedback to support students with making further progress within their highlighted area/s for development. 1/2-termly summative assessments are completed to provide a holistic review of pupil progress and to inform future in-class interventions. Mini-quizzes are set weekly through Educake online learning platform as homework. These quizzes are linked directly to our knowledge organisers.		
Which websites should I use to support my learning?	<a href="#">KS3 Science - BBC Bitesize</a> <a href="#">All subjects - Key Stage 3 - Oak National Academy (thenational.academy)</a>		
YEAR 10 & 11			
What will I be studying?	<ul style="list-style-type: none"><li>○ Cell biology</li><li>○ Organisation</li><li>○ Infection and response</li><li>○ Bioenergetics</li><li>○ Homeostasis and response</li><li>○ Inheritance, variation and evolution</li><li>○ Ecology</li></ul>	<ul style="list-style-type: none"><li>○ Atomic structure and the periodic table</li><li>○ Bonding, structure, and the properties of matter</li><li>○ Quantitative chemistry</li><li>○ Chemical changes</li><li>○ Energy changes</li><li>○ The rate and extent of chemical change</li><li>○ Organic chemistry</li><li>○ Chemical analysis</li><li>○ Chemistry of the atmosphere</li></ul>	<ul style="list-style-type: none"><li>○ Energy</li><li>○ Electricity</li><li>○ Particle model of matter</li><li>○ Atomic structure</li><li>○ Forces</li><li>○ Waves</li><li>○ Magnetism and electromagnetism</li></ul>

		○ Using resources	
Career Links	Sports scientist Midwife Zoologist Crime scene investigator Computer programmer	Conservationist Veterinarian Archaeologist Data analyst Ecologist Electrician	Engineer Astronomer Pet behaviour councillor Agriculturist Scientific researcher Food scientist
How will I be assessed?	<p>Mock examinations are completed in the Summer of year 10, Autumn of Y11 and Spring of Y11.</p> <p>Progress ladders are completed following each unit. These consist of levelled questions, enabling students to demonstrate the progress that they have made throughout each topic. These are followed by whole-class feedback to support students with making further progress within their highlighted area/s for development.</p> <p>1/2-termly summative assessments are completed to provide a holistic view of pupil progress and to inform future in-class interventions.</p> <p>Mini-quizzes are set weekly through Educake online learning platform as homework. These quizzes are linked directly to our knowledge organisers.</p>		
Which websites should I use to support my learning?	<p><a href="#">GCSE Combined Science - AQA Trilogy - BBC Bitesize</a></p> <p><a href="#">All subjects - Key Stage 4 - Oak National Academy (thenational.academy)</a></p> <p><a href="#">Freesciencelessons - YouTube</a></p>		