

## Science

Key Stage 4 Science at North Liverpool Academy builds on the foundations from Key Stage 3. It allows students to gain the skills and knowledge that they need to become future scientists. Students shape and develop their scientific minds through diverse and interesting lessons which link directly to every day life.

Key stage 4 students at North Liverpool Academy will be ready for all future science and technology pathways at our sixth form and beyond, as they will regularly be given the opportunity to use the most technological advanced equipment to analyse data from scientific investigations. This allows them to solve problems in real life contexts.

Students are successful in science as the curriculum is designed to allow them to develop their practical skills and ensure they can explore and question scientific phenomena and concepts. We aim to develop independent, inquisitive scientific minds through experiences both in and out of school. These include educational trips, guest speakers, science shows and experiences.

The Key Stage 4 curriculum caters for every child no matter of their ability and allow students to either gain two GCSE's in combined science or 3 GCSE's in the separate sciences. Throughout the GCSE course students cover a broad spectrum of topics in biology chemistry and physics. From this we aim to create independent resilient students and inspire and develop future scientists ready to take on scientific roles and challenges in the future. We give all students the opportunity to gain the skills and knowledge to understand and challenge everyday science in the real world.

The curriculum is differentiated within topics in order to match the pace and challenge with the needs of the students and their learning journey will cover the following key themes:

### Year 10

Homeostasis and Response  
Bioenergetics  
Infection and Response  
Bonding and Structure  
Quantitative Chemistry  
Chemical Analysis  
Particle Model  
Forces  
Atomic Structure

### Year 11

Inheritance  
Ecology  
Using Resources  
Waves  
Magnetism and Electromagnetism

