



At Brownhills Ormiston Academy, our Science curriculum is designed to inspire curiosity, develop critical thinking, and equip students with the knowledge and skills needed to navigate an increasingly scientific world.

We aim to provide a rich and engaging learning experience that fosters a deep understanding of scientific concepts while preparing students for future study and careers in STEM.

Our curriculum is structured around nine Big Ideas, covering fundamental principles in Biology, Chemistry, and Physics. Students explore the building blocks of life, ecosystems, and the human body, developing an appreciation for the complexity of living organisms. They investigate chemical reactions, the composition of our Earth, and the behaviour of matter, deepening their understanding of materials and the environment. In Physics, they study energy, forces, motion, and space, gaining insight into the physical laws that govern our universe. These concepts are revisited and built upon each year, ensuring a progressive and coherent learning journey.

Beyond scientific knowledge, we emphasise six key scientific skills: thinking scientifically, applying science in real-world contexts, effective communication and collaboration, investigative approaches, working critically with evidence, and using mathematical skills in science. Through practical experiments, discussions, and problem-solving activities, students develop the ability to question scientific information, critically evaluate media reports, and make informed, ethical decisions about contemporary scientific issues.

We also strive to make science relevant to students' futures by highlighting career pathways and real-world applications. By exposing students to a variety of scientific careers and integrating new scientific vocabulary explicitly into lessons, we ensure they can articulate and apply their learning with confidence.

Through an ambitious, knowledge-rich curriculum, we nurture inquisitive minds and empower students to engage with science beyond the classroom, preparing them for future success in further education and the wider world.

Throughout their Science careers at Brownhills students will learn to be:

Ready to thrive in our world.

Respectful of our environment and all living things within it.

Safe to make informed choices with decisions grounded in scientific fact and theory.