

Science Faculty Curriculum Intent Statement

What the curriculum is designed to do

The Science curriculum aims to share with all pupils an inspirational body of knowledge that will inform their understanding of the world; to develop their enthusiasm and natural curiosity about how and why things happen as they do; and to equip them with the confidence to make decisions about lifestyle choices in the face of great technological, medical, and environmental change.

Furthermore, at Tibshelf School we recognise that many pupils wish to pursue careers in science-based fields including engineering, healthcare, and the medical, veterinary, and pharmaceutical sciences. Our science curriculum takes this into account and aims to build for our pupils the necessary experimental and science-specific study skills that set them up for success in further and higher education courses.

How we deliver the curriculum (KS3/KS4)

The Key Stage 3 curriculum is taught in distinct Biology, Chemistry, and Physics units. All units are delivered through a mixture of practical, theoretical, and skills-based tasks and we include specific support for the development of literacy and numeracy in most units across Years 7, 8, and 9. In the Spring term of Year 9 the units of work concentrate on the strengthening the skills and concepts needed to underpin successful GCSE study, and the GCSE course begins in the Summer term of Year 9.

At Key Stage 4, all pupils study a common 'core' of distinct Biology, Chemistry, and Physics units. For most, these units lead to the two Combined Science GCSE grades, whereas pupils who have opted to study Separate Sciences will do a small number of additional units and some additional content in the core units in order to achieve three GCSE grades, one in each of the Sciences. The exam board we use is Edexcel.

How we assess pupils

All year groups are assessed six times per year, by one exam-style test and one checkpoint task each term. The exam-style tests consist of carefully selected short answer, long answer, and multiple-choice questions from past exam papers. Checkpoint tasks in KS3 consist of open-ended questions, whereas in KS4 the checkpoint tasks are past exam questions.

We routinely check pupils' understanding formatively during lessons, the vast majority of which start with retrieval questions and live marking, and each KS3 unit is formatively assessed near the end using a multiple-choice quiz. Home Learning consists of online quizzes, assignments, and exam questions set on Seneca Learning.

How it benefits pupil learning and personal development

The Science curriculum addresses many topics for personal development, such as healthy eating, sustainability, and health and disease. Pupils gain an understanding of topics in which, as adults, they will need to make responsible choices.

Pupils recall of key information is strengthened by retrieval practice, and they learn to use the technique themselves when studying; we promote other effective approaches to revision and study too, alongside careful consideration of the reliability of sources of information on the internet.