Biology at County Upper

Key Stage 4

Curriculum Aims	**What will you see in biology lessons?**	**What will you see in students' biology books?**
▪ To encourage independent learners, listeners and thinkers ▪ To provide enjoyable courses, that will stimulate interest and enthusiasm in the subjects ▪ To develop scientific knowledge and conceptual understanding ▪ To develop and learn to apply observational, practical, modelling, enquiry and problem-solving skills in the laboratory and in the field a ▪ To develop students' ability to evaluate claims based on science through critical analysis of the methodology, evidence and conclusions, both qualitatively and quantitatively.	▪ Students will build on skills that they have learnt at Key Stage 3 ▪ Students will be encouraged to be inspired, motivated and challenged by the key ideas in biology such as the interdependence between organisms, their life processes and the biological molecules involved. ▪ Students will gain an understanding of how scientific theories develop over time. ▪ Students will perform regular practical activities to develop their experimental skills to include forming hypotheses, planning, manipulating apparatus, taking accurate observations, presenting data appropriately and evaluating methods to suggest possible improvements. ▪ Students will develop their problem-solving skills by manipulating mathematical equations.	▪ Notes on key concepts ▪ Worksheets ▪ Key vocabulary and definitions ▪ Analysis of data and evaluation of practical work ▪ Practise past paper questions ▪ Revision notes, mind maps or worksheets. ▪ End of unit tests and self-evaluation forms.
Curriculum Content and sequencing **Year 10** Topic 3 – Genetics Topic 4 – Natural selection and genetic modification Topic 5 – Health, disease and the development of medicines Topic 6 – Plant structures and their functions **Year 11** Topic 7 – Animal coordination, control and homeostasis Topic 8 – Exchange and transport in animals Topic 9 – Ecosystems and material cycles	**What formative assessment will you see in biology?** ▪ At the end of each unit the students will sit an end of unit test worth 25 marks which contains exam style questions which are marked by the teacher. Students then complete a self-evaluation and set themselves targets for the next unit. ▪ For each of the core practicals that will appear in their GCSEs, the students are set exam style questions. ▪ Students have a mock exam at the end of Y10 and in January of Y11.	**What is the faculty currently reading and discussing and why?** ▪ **The journal of Biological education** - an international quarterly journal featuring the latest research into biology teaching, learning and assessment. ▪ **The Biologist** - The Royal Society of Biology membership magazine. Published six times a year, this is an excellent source of classroom material.