

KEVICC KS3 Curriculum:	Subject: Science	Key terms and vocabulary.
Year: 8 Term: Across the year	Topic: Biology	<i>Which words will be explicitly taught & how frequently will understanding be checked? How will assimilation of new vocab be checked?</i>
<p>What is the essential knowledge from this unit? What do students need to remember and understand?</p> <p><u>Autumn term – Lifestyles and Health</u></p> <p>This unit compares the effects of healthy and unhealthy lifestyles on the body. Themes include what is good nutrition and how the body absorbs that with the help of bacteria and enzymes. The topic also includes unhealthy diets and outlines the effects of smoking alcohol and drugs on the body.</p> <p>Key Practical – testing different foods for carbohydrate, protein and fat.</p> <p><u>Spring Term – Adaptation and Inheritance</u></p> <p>Students will investigate the differences between different types of organisms and why that is important for their survival.</p> <p>Themes include competition and adaptation, different types of variation, how characteristics are inherited and how all of those processes lead to natural selection and extinction.</p> <p>Key practical - measuring variation in humans</p> <p><u>Summer term – Ecosystem Processes</u></p> <p>Students will look at why organisms need energy to function and how that energy is captured from the environment and how it is transferred between different organisms.</p> <p>Key practicals: investigation the structure of plants and methods for estimating the number of plants in a habitat.</p>		<p>Addiction, Anus balanced diet, carbohydrase, carbohydrate, carbon monoxide, catalyst, deficiency, digestion, drug, enzyme, fibre, food test, lipid, lipase, mineral, nicotine, nutrient, oesophagus, protease, protein, stimulant, tar, vitamin, withdrawal symptom. adaptation, competition, chromosome, continuous, characteristic, discontinuous, DNA, inherited variation, environmental variation, evolution, extinct, fossil record, gene, gene bank, interdependent, natural selection, species, variation. aerobic, anaerobic, bioaccumulation, carnivore, chemosynthesis, chlorophyll, community, consumer, deficiency, ecosystem, fermentation, fertiliser, food chain, food web, producer, habitat, herbivore, interdependence, mitochondria, niche, nitrate, oxygen debt, plasma, phosphate, photosynthesis, population, predator, prey, stomata</p>
<p>What prior learning supports understanding of this content?</p> <p><u>Lifestyle and Health</u> – units from Y7 on digestion, diet and exercise as well as</p> <p><u>Adaptation and Inheritance</u> - from Y7 students have already covered reproduction and adaptation.</p> <p><u>Ecosystem Processes</u> – Year 7 work included the environment and how organisms interact with it and with each other for example, food chains.</p>	<p>How does this content link to future learning?</p> <p><u>Lifestyle and Health</u> – In GCSE the key themes of diet, health and exercise are revisited in detail in non-communicable diseases.</p> <p><u>Adaptation and Inheritance</u> – Inheritance is studied in detail in a GCSE genetics topic as well as how evolution, adaptation and inheritance are all linked.</p> <p><u>Ecosystem Processes</u> – In biology topics in GCSE the changes in the ecosystem relating to competition and climate change are studied in depth.</p>	
<p>Reading: <i>Where in the unit are students supported to read complex academic text?</i> Reading activities from textbook and comprehension activities in the integrated Skills Tests that run throughout the year. Scientific literacy also includes reading graphs and tables in order to extract meaning from data.</p>	<p>Writing: <i>Independent writing tasks and how they are structured</i> Writing skills include concise and accurate communication that includes appropriate keywords. Scientific literacy includes the ability to draw graphs and tables to effectively communicate data. Conclusions to practical work is the most important form of scientific communication.</p>	
<p>Key assessments: Biology questions in Autumn , Spring 1, Spring 2 and Summer assessments Skills tests 1 to 13 which are set as independent learning tasks.</p> <p>How will feedback be received? Students will be given feedback via DIRT sheets after each topic, regular feedback on skills tasks 12 times a year and tests 4 times a year. The students will be actively involved in all of these processes via 'purple pen' .</p> <p>What will be seen in books? Books will include notes on the content and practical/skills along with feedback via DIRT sheets (see above), skills sheets and tests will be found with purple pen relating to them all.</p>		<p>Vocabulary will be modelled by teachers and tested in periodic short tests and scientific literacy is marked during feedback. Scientific communication is directly reported to parents as part of the college report.</p>

