KEVICC KS3 Curriculum:	Subject: Science	Key terms and vocabulary.
Year: 7 Term: Across the year	Topic: Biology	

What is the essential knowledge from this unit? ***What do students need to remember and understand?***

<u>Autumn term -</u> **Cells**

- **Students will discover what plants and animals are made of and meet some tiny organisms that can only be seen under a microscope.**
- **Students will observe cells under a microscope and develop their knowledge of different types of cells including unicellular organisms**
- **Students will learn about diffusion and the movement of substances in and out of cells**

Key practical – learning to use a microscope

<u>Spring Term -</u> **Body systems**

- **Students will explore how different structures work together to keep an organism alive**
- **Students will become familiar with different tissues, organs and organ systems**
- **Students will be learn about gas exchange and breathing**
- **Students will discover how the skeleton, joints and muscles help with movement**

Key practical – demo of how we breath using a bell jar

<u>Summer term -</u> **Reproduction**

- **Students will discover how new plants and animals are created through the process of reproduction**
- **Students will explore adolescence and the reproductive systems of males and females**
- **Students will learn about fertilisation in both animals and plants**
- **Students will learn about the development of a fetus and the menstrual cycle in humans**
- **Students will discover how seeds are dispersed relating to plants**

Key practical – dissection of a flower

What prior learning supports understanding of this content?
From KS2 -
The life cycles of plants and animals include growth, development and reproduction. Plant parts – including roots, stem, leaves and flowers. How do plants grow from seed to adult? Flowers play an important part in the life cycle of a plant. Some animals have skeletons and muscles for support, protection and movement. Living things produce offspring, which grow into adults.

How does this content link to future learning?
In GSCE Science students develop knowledge on different types of cells including their growth and differentiation. Students build of their knowledge of photosynthesis and explore respiration. Students build on their knowledge of body systems and learn about digestion in more detail including the importance of enzymes in the digestive system.

Reading: *Where in the unit are students supported to read complex academic text?*
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.

Writing: *Independent writing tasks and how they are structured*
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.

Key assessments:
Biology questions in Autumn and Spring 1, Spring 2 and Summer assessments

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'

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.

Which words will be explicitly taught & how frequently will understanding be checked? How will assimilation of new vocab be checked?

Organisms, cells, microscope, observation, nucleus, cell, membrane, cytoplasm, mitochondria, respiration, cell wall, vacuole, chloroplasts, specialist cells, red blood cells, sperm cell, leaf cells, root hair cells, diffusion, concentration, unicellular, amoeba, euglena, flagellum, alveolus, antagonistic, bone, bone, marrow, contract, cartilage, diaphragm, exhale, inhale, joint, ligament, lung, multicellular, organ, organ system, respiration, respiratory system, ribcage, skeleton, tendon, tissue, trachea, volume, adolescence, anther, carpel, cervix, cilia, contraception, ejaculation, embryo, fertilisation, fetus, filament, gestation, germination, implant, menstrual, cycle, ovary, oviduct, ovulation, ovule, placenta, pollen, pollination, puberty, semen, sperm, duct, stamen, stigma, style, testes, umbilical, cord, uterus, urethra, vagina.

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