

The Week in Biology

It has been another busy and fascinating week in the Biology department, with students across the school exploring the building blocks of life, from microscopic DNA to the grand story of evolution itself.

Our **Year 13 biologists** have been diving into the complexity of genetics, focusing on how different genes interact with one another to produce the wide variety of characteristics we see in living organisms. Moving beyond simple inheritance patterns, students have been tackling gene interactions, including how multiple genes can influence a single trait. This is challenging, high-level content and the group have shown impressive resilience and curiosity as they develop the analytical skills needed for their final examinations.

Meanwhile, **Year 12** students have been laying the foundations of advanced Biology by exploring the fundamentals of molecular biology. Lessons have focused on how DNA is replicated with remarkable accuracy and how genetic information is translated into proteins at the ribosome. Students have been developing a strong understanding of enzymes, base pairing and the role of mRNA and tRNA, all of which underpin nearly every biological process studied later in the course. A solid start to A-Level Biology!

In **Year 11**, the focus has shifted towards reflection and refinement as students review their mock examinations and begin the final stages of their IGCSE Biology journey. Alongside targeted exam preparation, students have been revisiting the work of **Charles Darwin** and the theory of evolution by natural selection. This topic brings together many areas of Biology studied throughout the course and encourages students to think critically about evidence, adaptation and the diversity of life on Earth.

Our **Year 10** students are currently studying **respiration**, a reaction vital to all living organisms. Lessons have explored how energy is released from glucose, both aerobically and anaerobically, and why this process is essential for growth, repair and movement. Students have been linking abstract chemical equations to real-world biological needs, helping to deepen their understanding of how life is sustained at a cellular level.

Finally, **Year 9** students have been learning about **photosynthesis** and the crucial role plants play on our planet. From producing oxygen to forming the base of most food chains, students have been exploring why plants are fundamental to life on Earth. Practical work and discussions have helped students appreciate how energy from the sun is captured and transformed into the fuel that supports ecosystems worldwide.

It has been a week full of curiosity, challenge and discovery, and it has been fantastic to see students at every stage engaging so thoughtfully with the science of life. Biology truly is all around us!

