

Science: Biology @ WBS Year 10 Roadmap

Subject Aim: You are continuing to build on your skills and knowledge and you are using correct terminology in order to describe and explain key ideas.

TTP and Autumn Term	Topic 1 – Organisation and Enzymes	Assessment							
	You will learn about the organisation of living organisms in terms of cells, tissues, organs and organ systems. You will also learn about the structure and function of enzymes. You will study the digestive system as a link to both organisation and enzymes. This topic includes two required practicals on food tests and the effect of pH on enzyme activity. P27-32 of the Biology revision guide.		<p>There will be 3 formal Key assessments in Y10. Each will be a test of all of the content you have covered up to that point in time. You will be given the page references of the revision guides that you need to use 2-3 weeks prior to the assessment. The revision forms a key part of your homework. Your setting in Science will be reviewed following each assessment. Your performance will help to determine which examination route you take at the end of Year 11.</p> <table border="1" style="width: 100%;"> <tr> <td>Key Assessment 1</td> <td>18th September 2023</td> </tr> <tr> <td>Key Assessment 2</td> <td>22nd January 2024</td> </tr> <tr> <td>Key Assessment 3</td> <td>29th April 2024</td> </tr> </table>	Key Assessment 1	18 th September 2023	Key Assessment 2	22 nd January 2024	Key Assessment 3	29 th April 2024
	Key Assessment 1			18 th September 2023					
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Key Assessment 3	29 th April 2024								
Topic 2 – Photosynthesis									
In this topic you will learn about how plants make glucose and the conditions which can affect this. This topic includes a required practical on photosynthesis in pondweed. P57-60 of the Biology revision guide									
Spring Term	Topic 3 – Respiration	Homework and Revision							
	You will learn about the processes of aerobic and anaerobic respiration. You will also study the effects of exercise on respiration. P61-63 of the Biology revision guide.		<p>Homework is set by your class teacher on Brightspace. You can expect to get 2 homework tasks per topic. One homework is a quiz and the other is a set of written questions.</p> <p>Revision for the assessments is set by the Head of Department several weeks before each assessment. You will have some revision time in class with your core teacher, but revision is a key component of your Homework.</p>						
	Topic 4– Cell Division								
In this topic you will learn about stem cells, how DNA is arranged in chromosomes, a type of cell division known as mitosis, cancer and the risk factors associated with it. P15, 19, 41, 84 of the Biology revision guide.									
Topic 5 – Nervous System	Enrichment themes								
You will learn about the how your nervous system works including your senses, stimuli and reflexes. You will also learn about the structure and function of the brain and the eye, including correcting vision defects. This topic includes a required practical on testing your reaction time. P66-71 of the Biology revision guide.				<p>You will look at careers in science throughout the year. You will have the opportunity to engage with Science outside the classroom through STEM club (Science, Technology, Engineering, Maths)</p>					
Topic 6 – Hormones and Homeostasis									
In this topic you will learn about temperature and blood sugar control, function of the kidneys, the menstrual cycle, infertility treatments and plant hormones. This topic includes a required practical on the effect of light intensity on plant growth. P65, 72-82 of the Biology revision guide.									
Summer Term									

Where Next?

In year 11 you will continue to develop your knowledge and practical skills in Science. You will study; Inheritance, Variation and Evolution, Communities, Cycles, Human impact on the Environment, Food Chains, Biomass and Food Production (the last topic is only required for those students entered for Triple Science).