

Year 13 - Autumn 2		W/C 2 <sup>nd</sup> November	W/C 9 <sup>th</sup> November	W/C 16 <sup>th</sup> November
How you will access home learning		The PowerPoint and lesson materials will be available on g drive and in the Year 13 group on Microsoft (MS) Teams. You will need access to your Biology Year 2 textbook via Kerboodle and your Biology year 1 textbook you have at home. Both books are available in school		
How you be able to interact with your teacher and gain feedback on your work		You can interact with your teacher by asking any questions about the work by emailing your teacher directly. You can also use the chat function on the ear 13 Microsoft Team Class. Your teacher will monitor your scores on Kerboodle quizzes, and you will be able to submit written work for feedback through the online submission function on SHMW or via email.		
<b>Retrieval</b> How we will help you to recall previously learnt knowledge		Y12 recap question to help with synoptic at the start of each new area in the topic. There will be questions about the previous lessons' content. These will be at the start of each PowerPoint which will be put on g drive and MS Teams.	Y12 recap question to help with synoptic at the start of each new area in the topic. There will be questions about the previous lessons' content. These will be at the start of each PowerPoint which will be put on g drive and MS Teams.	Y12 recap question to help with synoptic at the start of each new area in the topic. There will be questions about the previous lessons' content. These will be at the start of each PowerPoint which will be put on g drive and MS Teams.
New Learning	What you will be learning about this week	Response to stimuli - what are the basic responses in animals and how do these affect survival chances? How do plants respond to their environment? Tropisms are an important part of a plant's growth cycle.	A reflex arc - how can this protect your body from damaging the tissues? We look in more detail at the response pathway and see how the nervous system is organised into the peripheral nervous system and the central nervous system. Any change in the environment must be detected by a receptor. You will look at two different receptors in more detail; Pacinian corpuscle and photoreceptors in the eye.	Control of heart rate - why does your heart beat in rhythm? What makes the chambers contract and ensure the heart is emptied out in each cardiac cycle? How does the nervous system control this?  Review of the chapter in preparation for a test.
	How we will teach you the new knowledge or ideas	PowerPoint content and teacher led explanations to on the basic responses. A required practical to model and see these basic responses in woodlice. Teacher modelling to talk through the required practical.	PowerPoint content and teacher led explanations on the reflex arc linking back to GCSE and building on prior knowledge. You will label a diagram mapping in all neurones that take part in the response pathway.	PowerPoint content and teacher led explanations on the overview of the nervous system. The explanations will cover the electrical control of the heart and look at how the heart responds to change sin the blood e.g. increase in carbon dioxide. There will be a synoptic

		<p>Look at a variety of plant experiments to demonstrate plant tropisms.</p>	<p>You will look at diagrams of the different receptors and recognise the size difference between Pacinian corpuscle and photoreceptors.</p> <p>There will be teacher led explanations on the overview of the structure of the eye and how photoreceptors allow objects to be seen and the difference between the types of photoreceptors.</p>	<p>exercise to recall the cardiac cycle of the heart then map in the electrical activity to see how they fit together.</p>
	<p>Activities that will help you learn and practice what you've been taught</p>	<p>Questions and tasks will be set for you to answer in the PowerPoint.as you follow the instructions on the slides. The required practical will focus on one simple response and you will use statistics to see if here is a significant difference between the response you observe. You will be issued with a homework book with exam questions which will be assessed by the teacher and feedback to you. You will be issued with a test yourself sheet which you will self-assess.</p>	<p>You will label diagrams of the different types of receptors that reflect and show the size difference between Pacinian corpuscle and photoreceptors. You will use these diagrams to explain the roles of these receptors in the body. You will complete a task that shows you where you blind spot is and look at how the brain can be 'tricked' when looking at optical illusions</p> <p>You will be issued with a homework book with exam questions which will be assessed by the teacher and feedback to you. You will be issued with a test yourself sheet which you will self-assess.</p>	<p>Complete a table looking at how the heart responds to changes in the blood e.g. increase in carbon dioxide.</p> <p>Homework booklet to be completed and teacher assessed with feedback.</p> <p>Test yourself to self-assess across the chapter and highlight any gaps in knowledge and understanding</p>
	<p>What you can do if you are stuck</p>	<p>You can use your online Kerboodle textbook to refer to any previous content. If you have questions in relation to any of the exam questions in homework booklets or test yourself, you can use the frameworks provided, and modelled explanations, to help you answer the questions. If you need to e-mail me to ask a question, then please attach a copy of the work that you have completed so far, so I can be specific in giving you feedback and help. You can ask any questions if the lesson is live using the chat function on Microsoft Teams. The Teams lessons will be recorded so you can refer to teacher explanations and listen to them again.</p>		

		W/C 23 <sup>rd</sup> November	W/C 30 <sup>th</sup> November	W/C 7 <sup>th</sup> December	W/C 14 <sup>th</sup> December
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How you be able to interact with your teacher and gain feedback on your work		You can interact with your teacher by asking any questions about the work by emailing your teacher directly. You can also use the chat function on the ear 13 Microsoft Team Class. Your teacher will monitor your scores on Kerboodle quizzes, and you will be able to submit written work for feedback through the online submission function on SHMW or via email.			
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<b>New Learning</b>	What you will be learning about this week	Test on chapter: survival and response  Neurone structure and nerve impulses. How is a nerve impulse transmitted? What happens if a nerve is not transmitting an impulse?	How does the action potential progress along a neurone and what can affect the speed of this transmission.  The 'all or nothing principle' and the refractory period and how these influence nerve transmission	Structure, function features of the synapse allowing nerves transmission to continue. What is the effect of drugs on the synapse? What medical drugs affect the synapses? Why are they needed?	Structure of skeletal muscle including types of muscle fibres. How do muscles contract? This starts with what happens at a neuromuscular junction and uses the sliding filament theory of muscle contraction to explain muscle contraction.
	How we will teach you the new knowledge or ideas	PowerPoint content and teacher led explanations on the basic structure of neurones and the nerve impulse. Look at a sequence of events of an action potential. Use of homework book to practice exam questions individually and sue of test	PowerPoint content and teacher led explanations on the sequence of events of an action potential progressing along a neurone and the factors that can affect this (myelin, temperature and axon diameter).	PowerPoint content and teacher led explanations on the sequence of events at a synapse. Use of video clips and animations to show the events. Teacher led explanation on effect of drugs on the synapse.	PowerPoint content and teacher led explanations on structure of muscle fibre. Use of a series of diagrams to explain muscle contraction and the physical changes that occur. Video clips and animations to see this in more detail. Teacher modelling of exam questions on muscle

		yourself and other exam questions in class. Teacher modelling of the separate sections of the action potential	Teacher led explanation on the 'all or nothing' principle and refractory period		contraction and synapses to link the two areas together.
	Activities that will help you learn and practice what you've been taught	Labelling diagrams of neurones and the action potential. Animations showing the action potential and interpreting graphs to calculate how many action potentials occur in a set time.	Labelling a sequence of events on the passage of the action potential along a neurone	Labelling of a synapse including organelles in the post-synaptic neurone will show the structure of the synapse. Worksheets to sequence the events at a synapse will help recall the order. Discussion and research the application of the principle of transmission across a synapse for medical use.	Labelling of diagrams to show physical changes. Sequencing activity to ensure order is correct. Exam questions to check understanding.
	What you can do if you are stuck	You can use your online Kerboodle textbook to refer to any previous content. If you have questions in relation to any of the exam questions in homework booklets or test yourself, you can use the frameworks provided, and modelled explanations, to help you answer the questions. If you need to e-mail me to ask a question, then please attach a copy of the work that you have completed so far, so I can be specific in giving you feedback and help. You can ask any questions if the lesson is live using the chat function on Microsoft Teams. The Teams lessons will be recorded so you can refer to teacher explanations and listen to them again.			