

## Personalised Learning Checklist

Subject: Science

Year group: 10









Dear Student,

During the academy closure you have been set a number of tasks. The list below is the learning you should have completed. Your teacher will use the list to check your progress during this time. It may be used for short quizzes, mini assessments or homework. Where there are gaps your lessons will focus on improving your knowledge and understanding.

SB2: Cells and control

Lesson	Objective	My personal RAG rating (Red- do not understand, Amber- some understanding, Green- I am confident)			Teacher RAG rating
Mitosis	List the names and order of the stages of the cell cycle, including mitosis.	RED	AMBER	GREEN	
	Describe what happens in each stage of the cell cycle, including mitosis.	RED	AMBER	GREEN	
	Describe why mitosis is important for an organism. (growth, repair, asexual reproduction)	RED	AMBER	GREEN	
	Explain why organisms may rely on asexual reproduction.	RED	AMBER	GREEN	
	Describe how mitosis produces genetically identical, diploid cells.	RED	AMBER	GREEN	
	Describe how cancers grow.	RED	AMBER	GREEN	
Growth in animals	Define growth in animals as an increase in cell number and size.	RED	AMBER	GREEN	
	Give examples of specialised animal cells.	RED	AMBER	GREEN	
	Describe how structure of specialised animal cells is related to their function.	RED	AMBER	GREEN	
	Explain why cell differentiation is important in the development of specialised cells.	RED	AMBER	GREEN	
	Use percentile growth curves to interpret growth in children.	RED	AMBER	GREEN	
Growth in plants	Describe the stages of growth in plants (cell division/mitosis, elongation, differentiation).	RED	AMBER	GREEN	
	Give examples of specialised plant cells.	RED	AMBER	GREEN	
	Describe how the structures of specialised plant cells are related to their functions.	RED	AMBER	GREEN	
	Explain why cell differentiation is important in the development of specialised cells in plants.	RED	AMBER	GREEN	
Stem cells	Describe where stem cells are found.	RED	AMBER	GREEN	
	Describe the function of stem cells in plants and animals.	RED	AMBER	GREEN	
	Compare embryonic and adult stem cells in animals.	RED	AMBER	GREEN	
	Give examples of where stem cells may be used in medicine.	RED	AMBER	GREEN	

	Identify benefits and risks of using stem cells in medicine.	RED	AMBER	GREEN	
	Evaluate the use of stem cells in medicine (by comparing their benefits and risks).	RED	AMBER	GREEN	
The brain	Describe what the brain is made up of.	RED	AMBER	GREEN	
	Identify different parts of the brain (cerebellum, cerebral hemispheres, medulla oblongata).	RED	AMBER	GREEN	
	Describe the functions of different parts of the brain (cerebellum, cerebral hemispheres, medulla oblongata).	RED	AMBER	GREEN	
Brain and spinal cord problems	 Describe CT and PET scanning.	RED	AMBER	GREEN	
	 Explain how brain function is studied using scanning, and the advantages of this	RED	AMBER	GREEN	
	 Explain the effects of spinal cord damage.	RED	AMBER	GREEN	
	 Explain the effects of damage to different parts of the brain (including tumours).	RED	AMBER	GREEN	
	 Explain the limitations of brain surgery.	RED	AMBER	GREEN	
	 Explain why some types of spinal cord damage cannot be fully repaired	RED	AMBER	GREEN	
The nervous system	List the parts of the nervous system.	RED	AMBER	GREEN	
	Describe how the nervous system detects stimuli.	RED	AMBER	GREEN	
	Describe the structure of sensory neurones.	RED	AMBER	GREEN	
	Describe the routes that impulses take to and from the brain.	RED	AMBER	GREEN	
	Explain how sensory neurones are adapted to their functions (including the myelin sheath).	RED	AMBER	GREEN	
The eye	Identify the main parts of the eye.	RED	AMBER	GREEN	
	Explain how the cornea, lens, iris and retina are adapted to their functions.	RED	AMBER	GREEN	
	Explain how receptor cells allow full colour vision in bright light.	RED	AMBER	GREEN	
	Describe common eye defects (cataracts, long-sightedness, short-sightedness, colour blindness).	RED	AMBER	GREEN	
	Describe how cataracts are treated.	RED	AMBER	GREEN	
	Explain how long- and short-sightedness can be corrected.	RED	AMBER	GREEN	
Neurotransmission speeds	Describe how the nervous system responds to stimuli.	RED	AMBER	GREEN	
	Describe the structures of motor neurones and relay neurones.	RED	AMBER	GREEN	
	Explain how motor neurones are adapted to their functions.	RED	AMBER	GREEN	
	Explain the action and function of synapses.	RED	AMBER	GREEN	
	Explain how the structure of the reflex arc allows a faster response.	RED	AMBER	GREEN	
	Describe the structure and function of the reflex arc.	RED	AMBER	GREEN	