












## SB2 Cells and control





## SB2a Mitosis

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 7 <sup>th</sup>	List the names and order of the stages of the cell cycle, including mitosis.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 8 <sup>th</sup>	Describe what happens in each stage of the cell cycle, including mitosis.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Describe why mitosis is important for an organism. (growth, repair, asexual reproduction)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 9 <sup>th</sup>	Explain why organisms may rely on asexual reproduction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Describe how mitosis produces genetically identical, diploid cells.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Describe how cancers grow.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>







## SB2b Growth in animals

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 4 <sup>th</sup>	Define growth in animals as an increase in cell number and size.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 5 <sup>th</sup>	Give examples of specialised animal cells.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 <sup>th</sup>	Describe how structure of specialised animal cells is related to their function.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Explain why cell differentiation is important in the development of specialised cells.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 8 <sup>th</sup>	Use percentile growth curves to interpret growth in children.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>




## SB2c Growth in plants

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 8 <sup>th</sup>	Describe the stages of growth in plants (cell division/mitosis, elongation, differentiation).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 5 <sup>th</sup>	Give examples of specialised plant cells.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 <sup>th</sup>	Describe how the structures of specialised plant cells are related to their functions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Explain why cell differentiation is important in the development of specialised cells in plants.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>













## SB2d Stem cells

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 7 <sup>th</sup>	Describe where stem cells are found.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Describe the function of stem cells in plants and animals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 9 <sup>th</sup>	Compare embryonic and adult stem cells in animals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Give examples of where stem cells may be used in medicine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 8 <sup>th</sup>	Identify benefits and risks of using stem cells in medicine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 10 <sup>th</sup>	Evaluate the use of stem cells in medicine (by comparing their benefits and risks).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>






## SB2e The brain

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 6 <sup>th</sup>	Describe what the brain is made up of.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 <sup>th</sup>	Identify different parts of the brain (cerebellum, cerebral hemispheres, medulla oblongata).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 <sup>th</sup>	Describe the functions of different parts of the brain (cerebellum, cerebral hemispheres, medulla oblongata).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>







## SB2f Brain and spinal cord problems

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 7 <sup>th</sup>	 Describe CT and PET scanning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 9 <sup>th</sup>	 Explain how brain function is studied using scanning, and the advantages of this	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 8 <sup>th</sup>	 Explain the effects of spinal cord damage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 8 <sup>th</sup>	 Explain the effects of damage to different parts of the brain (including tumours).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 <sup>th</sup>	 Explain the limitations of brain surgery.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 <sup>th</sup>	 Explain why some types of spinal cord damage cannot be fully repaired	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>







## SB2g The nervous system

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 6 <sup>th</sup>	List the parts of the nervous system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 4 <sup>th</sup>	Describe how the nervous system detects stimuli.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Describe the structure of sensory neurones.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Describe the routes that impulses take to and from the brain.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 8 <sup>th</sup>	Explain how sensory neurones are adapted to their functions (including the myelin sheath).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## SB2h The eye

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 6 <sup>th</sup>	Identify the main parts of the eye.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Explain how the cornea, lens, iris and retina are adapted to their functions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Explain how receptor cells allow full colour vision in bright light.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Describe common eye defects (cataracts, long-sightedness, short-sightedness, colour blindness).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Describe how cataracts are treated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 9 <sup>th</sup>	Explain how long- and short-sightedness can be corrected.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## SB2i Neurotransmission speeds

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 7 <sup>th</sup>	Describe how the nervous system responds to stimuli.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Describe the structures of motor neurones and relay neurones.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 8 <sup>th</sup>	Explain how motor neurones are adapted to their functions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 9 <sup>th</sup>	Explain the action and function of synapses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 9 <sup>th</sup>	Explain how the structure of the reflex arc allows a faster response.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 8 <sup>th</sup>	Describe the structure and function of the reflex arc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>