AQA Biology GCSE Year 9 Knowledge Grid

Christleton High School B2 Cell Division

Name	Class	Date
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Cell division

Lesson	Aiming for 4 (Foundation / Intermediate	Aiming for 6 (Intermediate / Higher	Aiming for 8 (Higher / Exceptional)
	I can state that human body cells have 46 chromosomes and gametes have 23.	I can explain why chromosomes in body cells are normally found in pairs.	I can explain why genetic material must be doubled during mitosis.
B2.1 Cell division	I can state that mitosis is a stage in cell division.	I can describe situations where mitosis is occurring.	I can explain in detail what happens at each stage of the cell cycle.
	I can state the meaning of most of the keywords – mitosis, chromosomes, gene, gametes.	I can use the keywords to describe the process of mitosis.	I can use the keywords to write detailed explanations on why mitosis is an important process in living things and how characteristics are inherited.
B2.2 Growth and differentiation	I can define the terms growth and differentiation.	I can describe the importance of cell differentiation in multicellular organisms.	I can compare and contrast differentiation in plants and animals.
	I can state why plant clones are genetically identical to each other.	I can explain how using tissue culture creates a clone of a plant.	I can explain why it is easier to clone a plant compared to an animal.
	I can attempt to clone a plant by using apparatus correctly.	I can attempt to clone a plant by using the apparatus correctly and following safety rules.	I can explain and carry out a practical accurately and safely in order to successfully clone a plant.
B2.3 Stem cells	I can state that a stem cell is a cell that is not differentiated.	I can describe differences between embryonic and adult stem cells.	I can explain why embryonic stem cells are more useful for helping medical conditions.
	I can state that plant stem cells can be used to create clones.	I can explain why plant clones are produced in the agriculture industry.	I can write a well-structured article about stem cells which has impact by the use of precise vocabulary and real-life examples.

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		I can write a simple article which states ways that stem cells can be used to help medical conditions.		I can write an well-structured article which communicates effectively how stem cells can be used to help medical conditions.			
		I can list some arguments for and against the use of stem cells.		I can describe what therapeutic cloning can be used for.		I can explain the process of therapeutic cloning organism.	
	B2.4 Stem cell dilemmas	I can verbally communicate simple ideas during a group discussion.		I can explain the reasons for ethical and religious objections against stem cells.		I can evaluate the use of stem cells.	
				I can verbally communicate well-constructed arguments.		I can clearly communicate strong, well- researched arguments in a persuasive manner.	