



MOUNT ANNAN HIGH SCHOOL

ASSESSMENT TASK NOTIFICATION

FACULTY	Science	COURSE	Science – Stage 4	YEAR	8
TASK NUMBER	1	TASK NAME	Concept Model - Cells		
TASK WEIGHT	20 %	MARKS AWARDED	20		
DATE OF NOTIFICATION	Term 1, Week 6				
DUE DATE	Thursday 21st March 2024 (Term 1, Week 8, Period 5)				

TASK DESCRIPTION / INSTRUCTIONS

What are the functions of organelles within a cell?

Students are required to complete **TWO (2)** pieces of work, after spending time planning and researching the structure and function of organelles within plant and animal cells.

Part A: Producing conceptual models. (10 Marks)

Students are required to produce a physical model of a plant **and** an animal cell.

Students are to make **2** physical conceptual models of their own creation, which demonstrates the 3D structure of the animal and plant cell.

Model criteria:

- Both cell models must be produced.
- Model size is a minimum of 10cm³ and a maximum of 30cm³.
- Animal cell must contain cytoplasm, nucleus, cell membrane plus two (2) other organelles of your choice.
- Plant cells must contain cytoplasm, nucleus, cell membrane, cell wall plus two (2) other organelles of their choice.
- Key which clearly identifies organelles present in both models.

Part B: Relating and communicating the biological process. (10 Marks)

Students will present a 'fact sheet' including the following:

- A venn diagram comparing and contrasting between an animal and a plant cell.
- A table outlining the function of each organelle present in your cell models, aimed at communication to Year 8 students.
- Identify an organelle within the plant cell which makes it easily distinguishable from animal cells
Explain in your own words, the impact this organelle has on the cell, and outline what would occur if the organelle failed to function properly.

TASK SUBMISSION INSTRUCTIONS

Students are required to submit the following **by** period 5, Thursday 21st March 2024.

Part A: The conceptual model is to be submitted to their classroom teacher

Part B: Students are to submit their 'Facts Sheet' via **hardcopy** with their model.

Fact Sheet should be no larger than a double sided A4 page.



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HOW DOES THIS TASK LINK TO MY LEARNING

Through applying the processes of Working Scientifically, students will be presenting ideas and findings to problems using scientific language and representations using digital technologies as appropriate. Students will construct and using a range of representations and models to represent and analyse patterns or relationships

OUTCOMES

SC4 – 6WS	Follows a sequence of instructions to safely undertake a range of investigation types, collaboratively and individually
SC4 - 7WS	Processes and analyses data from a first-hand investigation and secondary sources to identify trends, patterns and relationships, and draw conclusions
SC4 – 8WS	Selects and uses appropriate strategies, understanding and skills to produce creative and plausible solutions to identified problems.
SC4 – 9WS	Presents science ideas, findings and information to a given audience using appropriate scientific language, text types and representations.
SC4 – 14LW	Relates the structure and function of living things to their classification, survival and reproduction

FAILURE TO COMPLETE OR SUBMIT AN ASSESSMENT TASK

If you do not submit or complete the task you will be given a zero mark unless you comply with the following Assessment Guidelines:

- For Assessment Task completed at home – you must submit the assessment task before school on the next day you attend.
- For Assessment Tasks completed at school – you must report to the relevant Head Teacher before school the next day you attend and discuss when you will complete task missed or a substitute task.
- Complete a 'Misadventure Form' and provide relevant information and evidence to appeal the **zero mark** awarded. Other circumstances are outlined in the MAHS Assessment Booklet for the particular year. Evidence may include an in person medical certificate for illness or a letter outlining extenuating circumstances or other deemed reasonable reasons. An outcome of your 'Misadventure Form' will be provided by the Deputy Principal.

Students found guilty of **malpractice** which includes **plagiarism** will be awarded a **zero mark**. If a piece of work is incomplete at the time of submission, it should be submitted as is, and you will be given a mark on what has been completed.

As per our school Assessment Procedures outlined in the MAHS Assessment Booklet for the particular year, you must communicate with your teacher and Head Teacher by the due date. Please access our school website to access our assessment procedures for each year group and a 'misadventure form' - <https://mountannan-h.schools.nsw.gov.au/community/assessment-schedules.html>



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MARKING CRITERIA – Part A: Concept model	
Performance Descriptors SC4- 6WS, SC4- 5WS & SC4 - 8WS	Marks/Grade
<p><i>Concept model comprehensively</i></p> <ul style="list-style-type: none"> ● Accurately presented and demonstrates a plant and animal model which meets all aspects of the model criteria ● Clearly distinguishes between an animal and a plant cell ● Key identifies all organelles in both models ● All appropriate organelles are included in each model 	<p>A 9 - 10</p>
<p><i>Concept model effectively</i></p> <ul style="list-style-type: none"> ● Accurately presented and demonstrates a plant and animal model which meets all aspects of the model criteria ● Most distinguishing features between an animal and a plant cell ● Key identifies all organelles in both models ● Most appropriate organelles are included in each model 	<p>B 7 - 8</p>
<p><i>Concept model soundly</i></p> <ul style="list-style-type: none"> ● Accurately presented and demonstrates a plant and/or animal model which meets all aspects of the model criteria ● Some distinguishing features between an animal and a plant cell ● Key identifies key organelles ● Some appropriate organelles are included in each model 	<p>C 5 – 6</p>
<p><i>A basic model</i></p> <ul style="list-style-type: none"> ● Accurately presented and demonstrates a plant or animal model which meets all aspects of the model criteria ● Some distinguishing features between an animal and a plant cell ● Key identifies some organelles with inaccuracies. ● limited organelles are included in each model 	<p>D 3 - 4</p>
<p><i>A limited model</i></p> <ul style="list-style-type: none"> ● a model is presented with aspects of the model criteria 	<p>E 1 - 2</p>
Non Attempt – Non Submission – Non Serious Attempt	0



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MARKING CRITERIA – Part B: Communicating biological function	
Performance Descriptors SC4 - 7WS, SC4 - 8WS & SC4 - 9WS.	Marks/Grade
<p><i>Outstanding fact sheet that comprehensively discusses a body system.</i></p> <ul style="list-style-type: none"> -Table communicates a clear understanding of the plant and animal organelles function -Structure of the venn diagram is accurate and demonstrates a comparison and contrast between the two cell types. -Appropriately addresses the audience (Year 8 students) with creativity. - Correct organelle identified for plant photosynthesis and explains the impact its absence would cause on the cell 	<p>A 9 - 10</p>
<p><i>Thorough fact sheet that effectively discusses a body system.</i></p> <ul style="list-style-type: none"> -Table communicates a thorough understanding of the plant and animal organelles function -Venn diagram demonstrates a comparison and contrast between the two cell types. -Appropriately addresses the audience (Year 8 students) with creativity. - Correct organelle identified for plant photosynthesis and describes the impact its absence would cause on the cell 	<p>B 7 - 8</p>
<p><i>Sound fact sheet that overall explains a body system.</i></p> <ul style="list-style-type: none"> -Table communicates a understanding of some of the plant and animal organelles function - Venn diagram demonstrates a comparison or contrast between the two cell types. - Appropriately addresses the audience (Year 8 students) with creativity. - Correct organelle identified for plant photosynthesis 	<p>C 5 – 6</p>
<p><i>Basic fact sheet that overall describes a body system.</i></p> <ul style="list-style-type: none"> -Table communicates a basic understanding some organelles and function -Diagram presented with inaccuracies between the two cell types. - Aspects addressing the audience (Year 8 students). - Correct organelle identified for plant photosynthesis 	<p>D 3 - 4</p>
<p><i>Limited fact sheet that overall identifies a body system.</i></p> <ul style="list-style-type: none"> -Table communicates a limited understanding of organelles -States a feature of either a plant or animal cell types. 	<p>E 1 - 2</p>
Non Attempt – Non Submission – Non Serious Attempt	0