

Organelle Research Assignment

1. Select **4** organelles from the list for the assignment.
- | | | |
|-------------------------------------|-----------------------------------|--------------------------------|
| <input type="radio"/> Cell membrane | <input type="radio"/> Chloroplast | <input type="radio"/> Ribosome |
| <input type="radio"/> Vesicle | <input type="radio"/> Golgi Bogy | <input type="radio"/> Nucleus |
| <input type="radio"/> Cytoplasm | <input type="radio"/> Rough ER | <input type="radio"/> Vacuole |

2. For **each** organelle selected, **pick 2** of the following options.

Each option must be used at least once

(There are 6 options total so you can repeat 2 of them)

- A. Research & summarize the word origin (ie: root word, prefix...) ②
- B. 2 additional researched facts about the organelle. Not from notes ②
- C. Show a labelled diagram/image of the organelle with at least 3 labels ②
- D. Provide an example of a specific type of cell that has many of this organelle. Explain why this cell needs many of this organelle. ②
- E. Name a disorder or disease related to the malfunction of the specific organelle. State 2 symptoms. ②
- F. Explain how it works with another organelle ②

3. Provide references for all researched information. ③

- Clearly indicate which information came from each resource.
- Minimum 3 different sources. (Google is NOT a source)

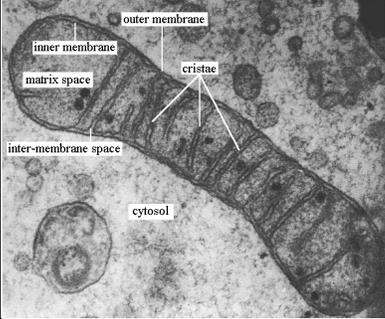
Rubric

Organelle	Option 1	Option 2
	① ②	① ②
	① ②	① ②
	① ②	① ②
	① ②	① ②
	References	① ② ③
	Total /19	

Exemplar: Mitochondria

Note: An example for all options has been shown.

You only need to complete 2 for each organelle.

A) Word Origin	From 2 Greek words: <ul style="list-style-type: none">- <i>mitos</i> meaning thread- <i>khondros</i> meaning granule
B) Researched Facts	<ul style="list-style-type: none">- Mitochondria produce >90% of energy in cells https://www.chop.edu/mitochondria-facts- Mitochondria has its own DNA which has 16,569 base pairs and encodes 13 different proteins. https://en.wikipedia.org/wiki/Mitochondrial_DNA
C) Labelled diagram/ image	 <p>https://biomyershl.wordpress.com/2014/12/05/cellular-respiration/</p>
D) Type of cell with many & explain why	<ul style="list-style-type: none">- 40% of each heart muscle cells are made up of mitochondria. This is because the heart can never rest and needs a constant supply of energy. https://www.chop.edu/mitochondria-facts
E) Disorder/disease 2 symptoms.	<ul style="list-style-type: none">- Mitochondrial DNA depletion syndrome (MDS)- Symptoms include: poor growth, muscle weakness & pain https://my.clevelandclinic.org/health/diseases/15612-mitochondrial-diseases
F) How it works with another organelle	<ul style="list-style-type: none">- Mitochondria works closely with the chloroplasts in plants. Chloroplasts produced glucose which mitochondria need as a reactant for cellular respiration.