

305 TASK A GUIDE

Unit 305 Task A

Know the Functions of the Main Animal Cell Organelles

What Is This Task About?

For this assignment you will create an eye-catching educational poster about animal cells. Your poster should be suitable for display in a classroom, open evening or college event and should clearly explain the structure and function of animal cells.

Assessment Criteria

You will need to:

- 1.1** Identify cell components
- 1.2** Describe the functions of cell organelles
- 1.3** Identify the stages of mitosis and meiosis

What You Need To Produce

You must create a poster that includes:

- ✓ A labelled animal cell
- ✓ The main cell organelles
- ✓ A description of the function of each organelle
- ✓ Diagrams of mitosis
- ✓ Diagrams of meiosis
- ✓ An explanation of the stages of cell division

Organelles You Should Include

- Nucleus
- Nucleolus
- Mitochondrion
- Ribosomes
- Endoplasmic Reticulum
- Golgi Apparatus
- Cell Membrane
- Vacuole
- Centrioles

Mitosis

Mitosis produces **two identical daughter cells**.

Purpose:

- Growth
- Repair
- Replacement of damaged cells

Stages:

- Prophase
- Metaphase
- Anaphase
- Telophase
- Cytokinesis

Meiosis

Meiosis produces **four genetically different sex cells**.

Purpose:

- Sexual reproduction

Stages:

- Meiosis I
- Meiosis II

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How To Achieve A Pass

To achieve a Pass you must:

- ✓ Correctly label all cell organelles
- ✓ Give a brief description of each organelle's function
- ✓ Include diagrams of mitosis and meiosis
- ✓ Describe the stages of cell division

How To Achieve A Merit

To achieve a Merit you must do everything required for a Pass plus:

- ✓ Give full descriptions of each organelle
- ✓ Explain the stages of mitosis and meiosis in more detail
- ✓ Show clear understanding of what happens during each stage
- ✓ Produce a high-quality poster with good presentation

How To Achieve a Distinction

To achieve a Distinction you must do everything required for a Merit plus:

- ✓ Clearly explain how the structure of each organelle helps it carry out its function
- ✓ Give accurate explanations of every stage of mitosis and meiosis
- ✓ Produce a professional standard poster
- ✓ Ensure information is detailed, accurate and well organised

Tips For Success

- Use colour and diagrams to make your poster easy to read.
- Label all structures clearly.
- Do not simply name organelles. Explain what they do.
- For higher grades, explain why each organelle is important.
- Make sure mitosis and meiosis are not confused.
- Check spelling of scientific terms carefully.

Final Checklist

Before handing in your work, make sure you have:

- ☐ Included a labelled animal cell
- ☐ Included all required organelles
- ☐ Explained the function of every organelle
- ☐ Included mitosis diagrams
- ☐ Included meiosis diagrams
- ☐ Explained all stages of cell division
- ☐ Checked spelling and presentation
- ☐ Met the grade criteria you are aiming for