

Checklist

What you should know

After studying this subtopic you should be able to:

- State, with examples, that organelles are structures that are separate subunit of cells and perform a specific function.
- Explain the advantages, using phagocytic vacuoles and lysosomes as examples, of the compartmentalisation of cytoplasm.
- Explain the advantage of the separation of the nucleus and the cytoplasm in regard to protein synthesis.

Higher level (HL)

- Explain, using an annotated diagram, how the structure of the mitochondrion aids in the production of ATP.
- Explain, using an annotated diagram, how the structure of the chloroplast aids in photosynthesis.
- Describe the functional advantages of the double membrane around the nucleus in protein synthesis and cell division.
- Describe the different roles of bound and free ribosomes.
- Outline the function of the Golgi apparatus in the processing and transport of proteins.
- Describe the role of vesicles in cells and the role of clathrin in the formation of vesicles.

