# B2.2 Organelles and compartmentalization

What the Cell · DP Biology · note-taking sheet · SL statements B2.2.1–3

**Name** _____ **Date** _____

**How to use this sheet:** go through the slides with it, then close them and write from memory. Use your own words and add page numbers from the book (pp. 244–247) where you want more detail.

**Guiding questions.** How does the structure of each organelle suit its function? Why is it useful for cells to have separate compartments?

## B2.2.1 Organelles

Define organelle. Then sort the structures below.

| Two membranes | One membrane | No membrane | Not organelles |
|---|---|---|---|
| | | | |

## B2.2.2 Nucleus and cytoplasm

| | Eukaryote | Prokaryote |
|---|---|---|
| Where the DNA is | | |
| Timing of translation | | |

What advantage does this separation give eukaryotes?

## B2.2.3 Compartments in the cytoplasm

List four advantages of compartments.

Explain how lysosomes and phagocytic vacuoles show these advantages.

## Before you finish

Tick the ones you can explain without notes. Circle anything to ask about.

- ☐ Definition of organelle
- ☐ Sorting structures
- ☐ Nuclear membrane
- ☐ Modifying mRNA
- ☐ Concentrating enzymes
- ☐ Lysosomes
- ☐ Phagocytic vacuoles