Mitosis and Meiosis

How do cells duplicate their contents? How do they partition these & divide in two? How do they ensure all the required steps are taken in the right order?

Overview of the Cell Cycle

The eucaryotic cell cycle is divided into four phases: M, G1, S and G2.

The cytoskeleton carries out mitosis and cytokinesis

Some organelles fragment at mitosis

Mitosis

![Diagram of Mitosis](image-url)
Prophase: mitotic spindle starts to assemble

Prometaphase: chromosomes attach to the mitotic spindle

Metaphase: chromosomes line up at the spindle equator
microtubules undergo a slow poleward flux during metaphase:
Anaphase: daughter chromosomes segregate

Telophase: nuclear envelope re-forms

Cytokinesis

Meiosis