

Why divide?

Why is it important?

The reproduction of cells allows you to grow and heal

How is DNA packaged in the nucleus?

DNA condenses to make chromosomes before division

Eukaryotic cell cycle includes G₁, S, G₂ (collectively called interphase) and mitosis and cytokinesis (collectively called cell division). See pictures below.

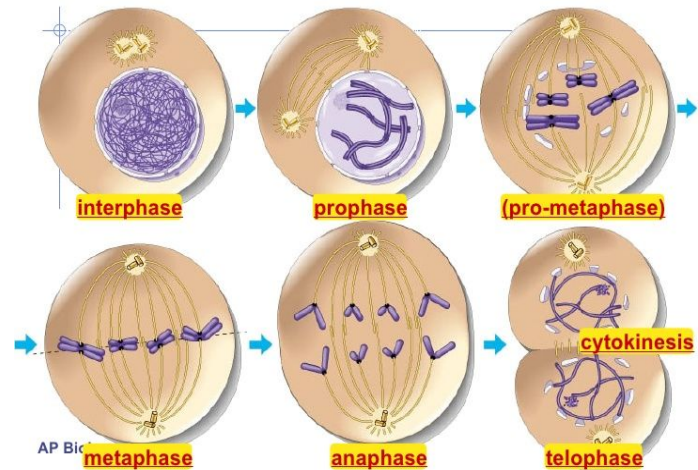
Prokaryotes vs eukaryotes

Mitosis

- prophase
- metaphase
- anaphase
- telophase
- (pmat)

Overview of mitosis

I.P.M.A.T.



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Eukaryotic cell cycle

If the cell cycle isn't regulated, it can cause problems like cancer

Mitosis happens in all cells except sex cells

Stages of mitosis

cytokinesis

regulation

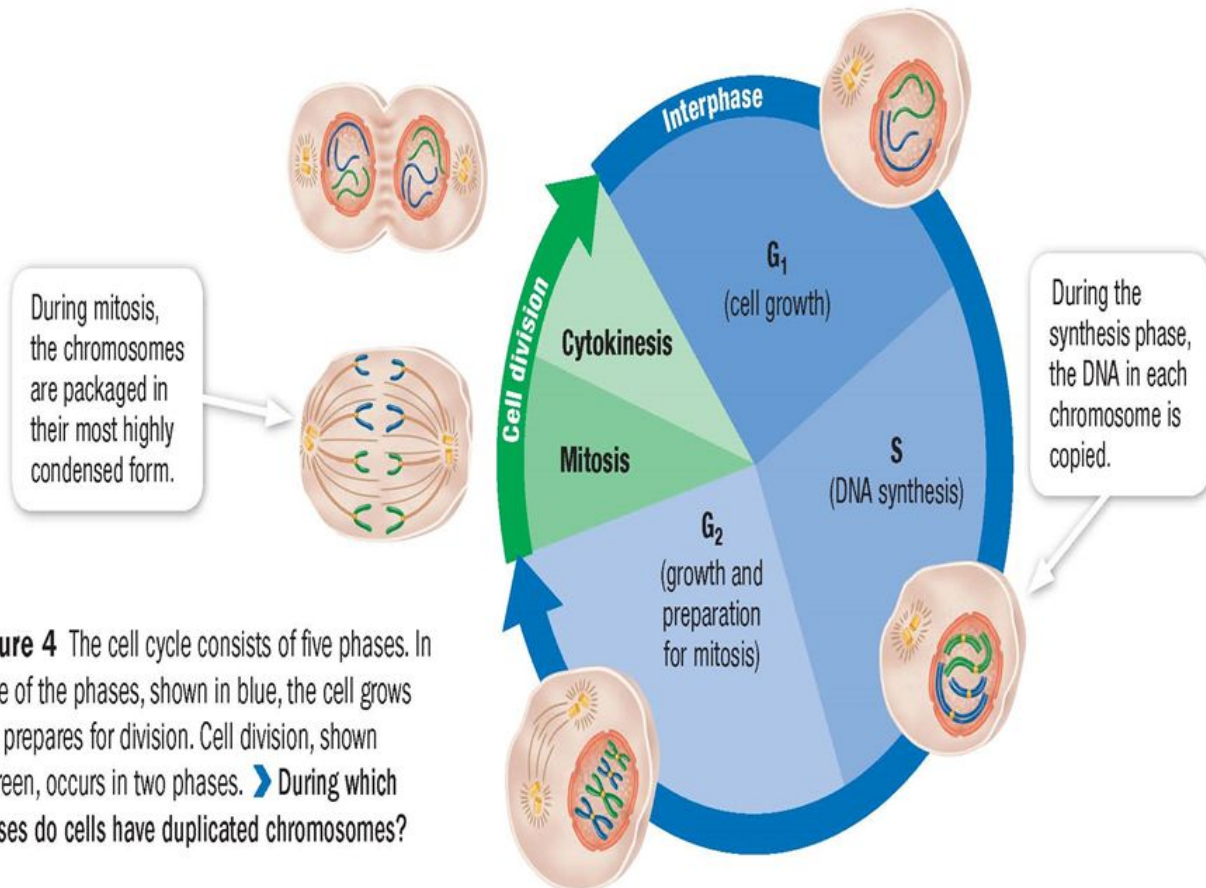


Figure 4 The cell cycle consists of five phases. In three of the phases, shown in blue, the cell grows and prepares for division. Cell division, shown in green, occurs in two phases. ➤ During which phases do cells have duplicated chromosomes?