

Cell Cycle

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A. Purpose

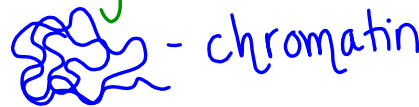
1. Repair damaged cells/tissues
2. Volume ↑ faster than surface area - dividing
Solves the problem
3. Development of multicellular organism
4. ↓ the demand placed on DNA

B. Phase

G₁

Event

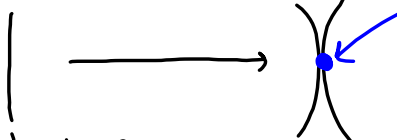
organelles replicated
cell growth
one copy of DNA



S

DNA replication

centromere



1 molecule of DNA

2 molecules of DNA

chromosome

replicated chromosome

chromatid

sister chromatids

G₂

growth
two sets of all DNA

M

mitosis - division of nucleus
cytokinesis - division of cytoplasm

C. End Result

- 2 identical daughter cells
- having the same # of chromosomes as the parent & each other

Think Dots Activity

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1. Each member of the group will roll their die 2 times and complete the corresponding activity.
2. Record your answer in your ISN.
3. Discuss your answers as a group once everyone has finished

<p>If you roll a 1: Explain 3 reasons why cells need to complete the cell cycle</p>	<p>If you roll a 2: Draw & label how daughter cells and parent cells are alike & different</p>	<p>If you roll a 3: Draw and label a replicated chromosome and an unreplicated chromosome</p>
<p>If you roll a 4: What are chromosomes made up of. Label the parts</p>	<p>If you roll a 5: Explain how we know when looking at a cell that mitosis has started</p>	<p>If you roll a 6: Draw the end result of cytokinesis</p>