

CELL CYCLE REVIEW

1. Diagram the “face of the clock” graphic organizer that displays the phases cells go through during their life. Provide a one sentence description of what occurs in each phase.
2. Apply these terms to the appropriate phase of the cell cycle—chromatin, duplicated chromosomes, sister chromatids, unduplicated chromosomes.
3. Diagram a DNA molecule, indicating four nucleotides (four base pairs)—indicate appropriate bonds and the antiparallel nature of DNA.
4. Replication:

Identify leading and lagging on your diagram of DNA (make sure to establish the direction of helicase and growing replication fork), On which strand is replication continuous and discontinuous (Okazaki fragments) and why?

Provide a one-sentence description of the following enzymes of the replisome:

Helicase, Primase, Polymerase III, Polymerase I, Ligase, SSBP

5. Mitosis
 - Name the genetic material at the beginning
 - Events of prophase
 - What occurs during metaphase
 - How do duplicated chromosomes move (centrioles and kinetochores)
 - How are duplicated chromosomes separated
 - What does telophase look like
6. Cytokinesis
 - Animal Cell v. Plant Cell?