**Name: Period: Date:**

**Focus Questions for Chapter 16.2 (DNA Replication) due Wednesday, 2/5**

# Questions to answer as you read about DNA replication. You will not be asked to turn these in, but Ms. Ransom may check to make sure you have completed them through a clicker quiz or short written response. You should be ready to discuss the answers during class.

1. How does the **semiconservative** model of DNA replication differ from a conservative model? Which one happens in biological systems?
2. What is the **origin of replication**?
3. DNA replication involves some specific terminology. For each term, briefly describe what it means:
   1. replication fork:
   2. helicase:
   3. single strand binding protein:
   4. topoisomerase:
   5. primer:
   6. primase:
   7. DNA polymerase:
4. Because of their structure, DNA polymerases can only add nucleotides to the \_\_\_\_\_\_\_\_ end of a DNA strand. This means that DNA will elongate in the direction \_\_\_\_\_\_\_\_\_\_ 🡪 \_\_\_\_\_\_\_\_\_\_.
5. Since DNA is only synthesized in one direction, elongation is continuous on one strand but happens in segments on the other strand. What are these two strands called? What are the segments called?
6. How is DNA “proofread?”

1. What are **telomeres** and why do eukaryotes have them (but not prokaryotes)?

**Questions I have that I plan to ask about in class:**