**VIDEO GUIDE: BOZEMAN DNA REPLICATION Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_**

1. Describe the differences between semi-conservative, conservative, and dispersive models of DNA Replication .
2. How did the Meselson-Stahl experiment show that DNA replication was semi-conservative?
3. What does “anti-parallel” mean in the context of DNA structure?
4. Describe the functions of the following:
   1. Helicase
   2. Single stranded binding proteins
   3. DNA polymerase
   4. Primase
   5. DNA ligase
5. Why does the “lagging strand” have to replicate DNA in a different way than the leading strand?
6. What is an “Okazaki fragment”?
7. Describe the difference in eukaryotic DNA replication and prokaryotic DNA replication? (Think structure, location, and origin of replication)