Concepts VII: DNA Replication

1. What is the purpose of DNA replication?

2. What is Chargaff’s Rule aka base pairing?

3. Explain why the above rule is crucial to DNA replication?

4. How many strands does each new DNA molecule have at the end of S phase?

5. What is the normal number of chromosomes in a human cell? What the number at the end of S phase?

6. How much DNA does any eukaryotic cell contain at the end of S phase? Use a general term rather than a specific number.

7. Explain Watson and Crick’s Semi-Conservative Model.

8. Using two different ink or pencil colors illustrate the Semi-Conservative Model. Create a key or label your strands.

9. What guides DNA replication so that it is both accurate and complete?