Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_ Seat #\_\_\_\_\_

**RWS 21.2 Prokaryotes**

1. Define “prokaryote”
2. What two domains are included in prokaryotes?
3. Where do bacteria live?
4. List 3 similarities between bacteria and archaea and 3 differences
   1. Similarities
   2. Differences
5. Describe each of the 4 ways prokaryotes capture energy
   1. Heterotroph
   2. Photoheterotroph
   3. Photoautotroph
   4. Chemoautotroph
6. Most prokaryotes reproduce through binary fission. Describe this process
7. What is conjugation and why is it important to prokaryotes?
8. Some prokaryotes can turn nitrogen gas (N2) into nitrate and other forms of nitrogen that are useful to plants, a process called nitrogen fixation. Why is this important to ecosystems?
9. Most bacteria are neutral or helpful to humans, but a few are harmful. List 2 ways that pathogenic bacteria can cause disease.
10. List 5 examples of human diseases that are caused by bacteria.
11. What are “superbugs”?