Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_

**DEMO/Lab #23 UV Radiation**

**Sketch OPTIONAL:**

Sketch your results in the “plates” below.

A B C D

No UV 30 Sec UV 30 Sec UV 30 Sec UV

Room Light Room Light Dark Cupboard Lid on During UV

Room Light

1. Rank the plates from most growth to least growth:
2. When bacteria are exposed to UV radiation, what specifically happens in the cell to prevent bacterial growth?
3. Which plates, A-D, were placed in an environment that supports:
   1. Dark repair. Explain why dark repair would occur on those plates. In addition, describe the mechanism of dark repair.
   2. Light repair. Explain why light repair would occur on those plates. In addition, describe the mechanism of light repair.
4. Growth may occur for reasons other than light & dark repair. Describe 2 additional reasons colonies might still grow in the areas exposed to UV radiation.
5. How might the results differ if a UVB lamp was used? Explain.
6. If Bacillus had sporulated before exposure to radiation, how might that affect the results the UV radiation had on the organism? Explain.