NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Module 3 Assessment:**

**An Examination of Nanotechnology Applications**

(In other words…Why do Nanoparticles Matter?)

*In this assignment, you will choose 1 application of nanotechnology that you find interesting and investigate how it works. In particular, you will explore the role of surface area and size in the specific use of nanotechnology*.

DIRECTIONS:

1. Choose an application of nanotechnology that is interesting to you. Below you will find some ideas of potential applications, but don’t limit yourself to this list. If you have a different application in mind, go with it!
2. Write a 2-3 paragraph review of the technology that addresses the following questions:
   * What is the goal of the technology or what is it used for?
   * How does the technology work and how are nanoparticles involved?
   * What effect do surface area and particle size have on the function of the nanoparticles?

Potential Applications of Nanotechnology:

|  |  |
| --- | --- |
| **Type of Particle** | **Application** |
| Copper Nanoparticles | Soldering in space |
| Nano diamonds | Targeted delivery of chemotherapy |
| Silver Nanoparticles | Stain-resistant fabrics |
| Iron Oxide Nanoparticles | Groundwater filtration |
| Silver Nanoparticles | Conductive inks |
| Silicate Nanoparticles | Prevent food spoilage |
| The “Ninja Particle” | Novel antibacterial- destroys bacterial DNA |
| Variety of Particles | Cheaper Production of solar cells |
| Silver Nanoparticles | Anti-odor fabrics |