Sci 8 **Microbe Research Assignment**

Alone or in pairs, you will research **one microbe**and discuss how it is important to us in **one of the following:**

* Nutrient cycle,
* Food spoilage,
* Food production,
* Production of vaccines or other medicines,
* Causing disease.
* Cleaning up chemical spills,
* Use in agriculture
* Use in waste management

Your project will include:

* Title, name, partner, date, block (1pt)
* Description of organism:
* Type – eg. bacteria, virus, yeast (1pt)
* Scientific and Common Name the organism (1pt)
* Labeled Image/drawing of organism (1pt)
* At least two characteristics describing microbe (shape, how it reproduces, in what sort of habitat is it normally found) (2pt)
* Why it is important (what disease does it cause/what medicine is it used to make/what waste does it clean up)? How does it do this? (3 pt)
* Cite your work. Wikipedia does not count. (1pt)
* Project must be in your own words. No cut and paste. Can be poster, power point, comic strip or written report.

Hints:

* **Clean up chemical spills, fertilizer or pesticides** (pick a chemical and the microbe(s) that break that chemical down). Where does the chemical come from in the first place? Why do we need to break it down?
* **Agriculture**: creating genetically modified crops. What crop? What microbe? What is the benefit? Where is this crop used?
* **Waste management** – eg water treatment plants.
* **Food production** – wine, yogurt, bread dough, kimchi.
* **Disease** – pick any disease caused by a microbe. Name disease, microbe that causes it, how does the microbe get into us (eaten, inhaled, through open wound, borrow through skin?), symptoms of disease, how is it cured or treated? What happens to the microbe? Is it killed, does it move on to the next victim?
* **Medicine:** Production of either vaccines, insulin, or antibotics