Sci 8 **Microbe Research Project**  25 pt Name:

Alone or in pairs, you will research **ONE species of a type of microbe**and discuss **how it is important to us** (good or bad) in one of the following:

* Cycling of Nutrients
* Food production
* Medicine
* Gut bacteria
* Disease,
* Bioremediation (Cleaning up chemical spills)
* Use in waste management

**Your project will include:**

1. Title, name, partner, date, block (1pt)
2. Scientific and Common Name of ONE organism (1pt)
3. Description of organism: Shape, size, Type (bacteria, virus, yeast), Habitat (where normally found) (4pt)
4. Labeled Image/drawing of the organism (1pt)
5. Discussion of your topic: Importance, How does your microbe function? Affects: Benefits/harm Use prompts. (10 pt)
6. Cite your work. *Minimum of three sources*. Wikipedia does not count. (1pt)
7. Project must be in your *own words*. No cut and paste (2pt).
8. Well organized, no spelling mistakes, visually appealing, effort (5pt)
9. You may include other images to support your presentation. Images must also be cited.
10. Can be poster, power point, comic strip or written report.

Partner: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Microbe topic: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

There are many different species of algae, protozoa, bacteria, fungi, and viruses. Discuss ONE and what it does.

Eg. *Pseudomonas putida*is a gram-negative soil bacterium that is involved in the bioremediation of toluene, a component of paint thinner. It breaks down toluene by ….This is important because …

Eg. Bacteria and cycling of nutrients: Nitrosomonas europaea is a bacteria that lives on the nodules of ….plants. this bacteria cycles nitrogen in the ecosystem in a process called nitrification, where ammonium is oxidized to nitrite …Nitrogen cycling is important because most nitrogen in the atmosphere is not in a useable for plants and animals. Nitrogen is a major component in chlorophyll, a pigment needed for photosynthesis. Without nitrogen fixing bacteria plants would die.

Eg. Candida albicans is a type of yeast (which is a type of fungi) that normally lives in the human gut. This particular yeast can cause candidiasis, a yeast infection in the vagina. This can happen when…..Symptoms of an infection include…It can be treated…

