Student Driven Research Topic Ideas

*Lysis of Plant Cells From Freezing* --
Students could research why some plants die in freezing temperatures and what methods would be best to protect them (would need to be done in winter OR use a freezer!)

*Yeast Metabolism Rates* --
Yeast are single-celled fungi that consume sugars and release carbon dioxide. Students can learn about metabolism, different kinds of sugars (ex. Sucrose, maltose, galactose) and then create a study that compares effects of different sugars on the rate of metabolism.

*Wavelength effect on colored plants* --
Students can research effects of different colored lights on colored plants, since plants reflect a certain color which is the length of wavelengths that the plant doesn't use for photosynthesis.

*Rate of Nitrogen Fixing in Legumes* --
Students can research the different bacteria on different roots of legumes to see how much nitrogen could be produced and what locations and soil types provides the most possibility for the most nitrogen produced.

*Capillary action* --
This is the action of water flowing through the xylem of the plant. By coloring the water, the leaves or petals will change to the color of the water and this shows students how the water and minerals travels through the plant. This project can be as in depth as you choose and can be altered for elementary students, middle school students high school students.

*How to measure insect populations in your area* --
Using insect traps such as pitfalls, berlese funnels, and rain traps, to measure what populations of insects may be living in your area.

*Insect life cycle* --
Looking at the different stages in a mealworms life cycle. Exploring what they do in the larvae, pupae, and adult stages.

*Oxidation of fruits and vegetables* --
Ever wonder why your guacamole turns brown? Us too. This would be a fun thing to research in your classroom to inform your students why the apple isn’t icky because it has turned brown. It’s because of science! Students could ask research questions about what would slow down that oxidation.
Other Ideas?