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The Development of Curriculum Based Terrarium Experiments for a High School Biology Classroom

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Oral Presentation O3.2

**THE DEVELOPMENT OF CURRICULUM BASED TERRARIUM
EXPERIMENTS FOR A HIGH SCHOOL BIOLOGY CLASSROOM**

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Experiments in high school biology classrooms aid in the internalization of information for students. This has been demonstrated by Fisher et. al. and others to a great extent. I believe, however, that the intimate relationship of all things in nature is often lost on students due to the random execution of experiments in today's high school curricula. The introduction of a terrarium to the classroom environment will allow an arena for experimentation for an entire semester's worth of lessons, and will illustrate to students the connectivity of the natural world. The creation and maintenance of a classroom terrarium also instills a sense of responsibility and belonging in the students and teacher alike. The development of independent projects, experiments, and observational studies also allows students the opportunity to take an active role in their education. Teachers benefit from this by the freedom to assign extra credit opportunities and projects for students who are interested in further exploration.

Currently, there is no curriculum based terrarium lesson plans for teachers to work from. During my research, I have set up a terrarium and develop week-by-week experiments that coincide with typical curriculum lessons. I have performed these experiments, recorded data, and reflected upon their potential as experiments to be performed in a classroom. My research will include experiments on such topics as: an introduction to microscopes and microscope techniques, ecology, evolution, botany, microbiology, genetics, and the form and function of biological systems. Those conducted so far have opened the door to exciting possibilities. The terrarium and the experiments therein are on public display. The reactions of the public are being documented and reflected upon, as they may be useful in determining the level of engagement of the individual experiments and the project as a whole.