

PIONEERING MARS: PLANNING SEMINARS

In December of 2012, students from the four participating high schools were brought to the University of Southern Mississippi's Gulf Coast Campus for a group seminar to plan the experiments.

Students were divided into four groups that worked in two hour and a half long breakout sessions. The groups were divided as follows:

- AER – looked at issues of atmosphere and climate.
- SAL – considered aquatic and soil chemistry.
- LUX – planned for visible and UV light issues.
- VITA – worked on general issues with culturing life.

Facilitators were given resource articles to help students make decisions regarding the experiment (abstracts/links attached) and the following general instructions for student management:

- Try to identify a student “rapporteur” who is willing to document the group’s conclusions in a consolidated form (bullet points are fine) – perhaps on the classroom white-board.
- Facilitate task-oriented discussions; try to engage each student in brainstorming on the task at-hand (open discussion, round-robin – whatever works).
- The students shouldn’t worry about KNOWING the answers – it is more important that they focus on HOW we can figure out the answers through our experiments.
- The students shouldn’t worry about HOW to perform the experiments – it is more important that they define which variables are important, and the basic range of values we should be testing.
- As long as they stay relatively on-task, try not to nudge the direction of the student discussions too much – we want them to think critically, but also creatively.
- Present each TASK and SUB-TASKS (student information in black) to students and have them engage in their discussions. If students begin to struggle, it may be necessary to provide them with a little help – suggestions and pertinent factual information for each TASK and SUB-TASK are indicated below (facilitator information in blue).