



Teacher Notes for “The Human Body Is an Ecosystem” Lesson Plan

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Note: Please see “Lesson Description” document for Objectives, Key Concepts, Standards, Materials, and Sources.

Suggestions for how to use this activity:

The lesson and project would fit best after students have had an introduction to cells and ecology. Depending on the order in which you teach these subjects, it could be useful as a mid-year or final project.

Day 1:

1. Have students complete “Human Body Is an Ecosystem Bacterial Reproduction Warm-up” activity. It allows them to practice calculations and graphing. It is also a good way to introduce the idea of how bacteria are able to reproduce to large numbers so quickly.
2. Introduce students to the microbes of the human body using the “Human Body Is an Ecosystem” PowerPoint presentation.
 - Many of the slides lend themselves to being interactive and promoting discussion.
 - Tips for these discussion points are provided in the “Notes” section of the presentation under each slide.
2. Hand out “Human Body Is an Ecosystem Project” Student Handout and Rubric and read through as a class.
 - Make sure to remind students they have 3 weeks to complete the assignment, but will have to provide evidence of their progress at various checkpoints.
 - Schedule checkpoints about 4-5 days apart, with the third checkpoint a few days before project due date.
3. Have students form their groups and have each group select a beneficial microbe to research

Day 2:

1. Research in computer lab or library.
3. Remind students of first checkpoint at which they will have to show evidence of their research (printouts from websites or notes).

Day 3:

1. Research in computer lab or library.
2. Remind students of second checkpoint at which they will have to show rough drafts of their story ideas.

Day 4:

1. Research in computer lab or library.
2. Remind students of the third checkpoint at which they will have to show progress on their presentation (outline, brainstorm, story board).

Day 5:

1. Have students present in their groups.
2. For each group, make sure to collect the following:
 - Color printout or digital file of the magazine cover
 - Two typed story summaries
 - Typed source list
3. Once all the presentations are completed, have students split up to fill out the “Individual Contribution Grading Sheet” (actually found on the third page of the project rubric). These will be averaged to come up with individual grades using the rubric.

Suggestions for grading with the rubric:

Exceeding Expectations – 4 points

Meeting Expectations – 3 points

Needs Improvement – 2 points

Not Demonstrated – 1 point

Using www.roobrix.com, you can easily convert the rubric grade to a numerical grade. For the rubric for this project, Levels = 4 and Criteria = 12. For example, if you circled all “Meeting Expectations” for the Magazine Cover, Story Summaries, and Pitch Presentation, the group would receive a 36 (3 points x 12 criteria). Once plugged into the calculator at www.roobrix.com, the group would receive an 87%. Then this percentage can be multiplied by any point value you choose to assign to the project.

Without this calculator, a score of a 36 – all “Meeting Expectations” – would receive a 75% which is not really a representative grade for a student that is meeting all of your expectations...