

Lesson Plan- Engineering

05/28/08

Time Alloted:

50 min

Materials:

Standard size mouse traps

Handout of Exam Guidelines

Objective:

Given a standard mouse trap and a set of guidelines to follow, students will be able to design and build a self-propelled vehicle that will be able to travel at least 12 ½ feet of linear distance.

Purpose:

This exam will determine the students' abilities to understand a problem, research physical properties, generate and sketch possible solutions, design, create and build a vehicle, and test for performance.

Procedure:

- announce to the students that their final exam will consist of an engineering project where they will have to design and build a mouse trap vehicle that can travel the furthest linear distance.
- explain the guidelines that the students must follow in their designs
- explain the grading criteria
- answer any questions the students might have
- allow students to work on projects in the lab

Evaluation:

The students will be evaluated on documentation, design, and performance.

A.8.1 Show that technology has allowed us to further the efforts of science and, in turn, science has enabled us to develop better technology

A.8.2 Explain the need for and application of knowledge and skills from other disciplines when engaging in technological activities

A.8.3 Identify and contrast the connections and differences between technology and other disciplines

A.8.4 Determine that technological knowledge is valuable but not always available to everyone on an equal basis

A.8.5 Analyze how cultures and groups value technology differently and how these values influence the development and acceptance of technology

A.8.7 Discover that human will or desire can lead to the design of new technology in order to seize an opportunity or solve a problem

