

Crawford County Educator-in-the-Workplace Act 48 Program

Lesson Plan

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General Science
Teamwork Training: Chariot of Fire
July 17, 2007 Tech Tool and Molded Plastics, Inc.

A. Academic Standards Addressed

3.2.12. Analyze problems and use the technological design process to solve problems.

B. Objectives

The students will be able to:

1. Work as a team to reach a technological goal.
2. Demonstrate the proper use of required tools and materials.
3. Explain in their own words how a production line approach to a problem not only improves production time, but also the overall quality of the product.

C. Introduction/Motivation

1. Introduce the “Chariot of Fire” as the first step in the process of building a Battlebot.
2. Explain that the goal of this competition is for the teams to build their chariot not only the fastest, but also the closest to the product standard required.

D. Activity/Procedure

1. Ask for 3 volunteers from each team. Have volunteers attempt to build robot individually. Time the students.
2. After a long period of time, stop the students and have the class brainstorm ways to speed up the process. When students suggest entire team work on project, start over and allow each team to attempt to complete task. Time them.
3. After teams are done, brainstorm ways to improve. Then suggest that students set up a production line where each student has a specific task to focus on. Repeat competition after students decide on individual tasks. Time the groups.
4. Repeat competition, but call students out of groups to see what happens to production. Discuss the resulting backup with the class. Repeat process but this time have the students switch jobs repeatedly to ensure that every student can assemble every component of the robot.

5. Final competition will be to time the teams assembling the project but with the understanding that at random times workers will be removed. Teams with the best time will be the champions.

F. Assessment

Students will reflect on the activity in terms of what they learned about working together and using the required tools and materials. Also, they will be asked to predict how this activity may help them in the battlebots competition.