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Strategy Name: Mirroring Industry through departmentalization

Objectives: Have students hone their soft skills through working through the production of a product in departments.

Materials Needed:

- Blue Print of item to be massed produced
- Calculator
- Various Tools
- Stock
- Lathe, Mill, Saw

Process: In this lesson students will learn to utilize soft skills to work through a production simulation. Unlike most projects where a single student goes through all processes of metalworking in isolation, Students will be split into departments led by a student foreman. While the foreman is tasked with leading the overall process and making critical decisions. Each student will have a task within their department.

Students will have one week to produce 40 of the attached prints. The student with the highest grade at the time of this project will be selected as the class foreman.

Departments and Tasks:

- Stock ordering and preparation (order and rough saw stock)
- Engineering (create toolpaths for CNC machines)
- Roughing Mill, Lathe (Setting up machine to hold and cut stock)
- Finishing (deburring, sanding, threading)
- Inspection (approve parts to print specifications)

Students should document their work daily and complete the following conclusion questions upon completion of the project:

- Did you successfully finish on time?
- How would you rate the foreman in this project? Why?
- How would you rate your departments performance? Why?
- How would you rate the department before yours in the process? Why?

Closure: Lead a reflective discussion about the process. Where did issues occur? How did this affect the next step in the process. For those of you who work, how does that change your view of the importance of accuracy within your role and communication with your team members