

## Lesson Plan

**Text:CORD Classic**

**Unit number and title: 10- Using signed numbers and vectors**

**Developed by: David Richards- Fort Vancouver HS**

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**Short Description:** Students will draw a cut path for an object using vectors and magnitude to describe geometry . Application could be used with the FVHS automated plasma cutter to cut out a logo as provided by the instructor

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### LESSON PLAN

**TEACHER:** Teacher Prep/ Lesson Plan

- Lesson Objectives  
Students will demonstrate an understanding of positive and negative vectors using two axis to describe a part profile
- Statement of pre-requisite skills needed  
students will need basic Windows style program skills to open Acad and find the "line" command.
- New Vocabulary:  
vectors, relative, closure, x,y axis, origin, cut path, tool offset
- GLE's addressed:  
Math: (1.2.2 Understand and apply rate and other derived units of measure.  
Reading: (3.2.2 Apply understanding of complex information, including functional documents, to perform a task.)  
Writing: (3.1.2 Uses an effective organizational structure)
- Set-up information (Remind students to follow these basic rules.)  
Use autocad's default units, save file with student # and add lab # at end. Paper submitted must include student's own application of this lab.
- Teacher Assessment of student learning (scoring guide, rubric)  
Scoring guide comparing student work to teacher's template. Evaluate student's write up of how to produce a product using the skills gained in this unit.
- Summary of learning  
Cad skills, manipulation of tangible data on screen, and understanding that all movement is relative to something,
- Optional activities  
Actual cutting out of pattern, and modification of assignment for cuttingout student's own ideas going beyond instructor's simple figure.
- Career Applications  
Draftsman, CNC programmer, surveyor, mapper, floor installer, wallpaper installer, custom car painter, signmaker, concrete worker