



From idea to finished product - easter dog



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Summary of course

This lesson planning deals with understanding of simpler drawings as well as common measuring and drawing tools, where elementary school students are given the opportunity to participate in the entire chain from drawing to finished product in a fun way. The course covers safety, the basics of reading drawings and measuring, as well as the opportunity to make an Easter dog yourself based on a finished drawing.

Course facts in brief

Time: 2x90 minutes

Number of students: 21 in total

Number of supervisors: 6

Number of groups: 2 (2 groups at each implementation)

Age of students: 10+

Prior knowledge of students: Basics in CAD, drafting of playing field and players

Prior knowledge of supervisor: Completed the courses Production knowledge 1, Production equipment 1, Product development 1, Man in Industry, Industrial technical processes, Welding basics, Joining.

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Introduction

Background

Society's and business's need for people with technical knowledge is increasing at the same time as the interest in seeking technical educations is decreasing or at least not increasing to a sufficient extent. Something should therefore be done to get more young people to choose technical, both vocational and study preparation courses in upper secondary school.

Purpose

The purpose of these lessons is to let younger students in elementary school come into contact with interesting technology they have not worked with before, while being supervised by older students who attend high school technical courses. The older students become a bit of role models and can then more easily transfer their interest in and attitude to technology and craftsmanship to the younger students with their youthful enthusiasm.

Method

Empirical knowledge by being guided/instructed together with older students and making a product based on a drawing, by using measuring and drawing tools. In addition to this, students from primary school have the opportunity to see the program's workshop and meet students and teachers.

From idea to finished product Easter dog

Preparation in upper secondary school

Make 4 tools adapted for bending Easter dogs. Collect materials used to make a total of 21 complete Easter dogs.

Prepare so that safety glasses, drivers and hammers are available for at least 21 students (2 groups). Provide files that the students can use to file/grade their details with.

In advance, prepare the plates for bending.

Bring out pieces of tin for the students to weld their name on and take home.

Preparation in primary school

No prior knowledge is required for making the Easter dog.



Implementation

Lektionen startar med säkerhetsgenomgång (inkl. genomgång av brand samt utrymningsvägar) och utdelning av skyddsglasögon.

Show drawing:

Brief feedback on what they did on previous visits (CAD (Drawing) - 3D (prototype) - Manufacturing (CNC)).



Introduction of the Industrial Engineering program and the students who participate.

Then review of the welding workshop (look at manual machines, different welding methods, sheet metal shears, edger (both controlled and manual))

Whole group performs cutting of material in the workshop with 2 high school students. The group is then divided and given instructions at 2 different measuring tables.

After drawing the sheet, the high school students show where the students should drive for clarity before sawing.

After sawing, the students bend the plates and weld where the candle holder is, high school students and teachers help.



Finally, those who want to try welding get their name with MAG welding. The students can bring their own Easter dog home and can put a tealight in it.

Evaluation

When the students have completed the lessons at the upper secondary school, an evaluation is made of how they experienced the lesson, as well as of how their teacher felt that the course worked for the students. The aim is to get tips on how we can improve future courses. The supervisors should also be allowed to evaluate their participation. The evaluation is preferably done with the Google Forms tool.

Appendix

Link to Slideshow:

https://docs.google.com/presentation/d/1GDA1VvV_6Fu44PEsu3HROvACCDPb64tgcdFGURvHXFs/edit?usp=sharing