

Mechanical „Dice“ Project

Timeline

-1.11.2018. I started to plan the activity at the youth center

-3.11.18. At the begin to plan the articel

23.11.18 I was in the school look in their rooms and to have a knowledge about their machines

25.11.18 Writte the articel in the corect order



**Centro de
Juventude
de Águeda**
ÁGUEDA YOUTH CENTRE

Importance of the project

The project shows students how to handle a conventional machine better. These machines are important for understanding more complex machines that are used in today's jobs related to technique and machines. Those jobs are more and more coming in all over Europe and will be much more important in the future.

Usually the students tend to work more with CNC and computers and with my project they have more time in a practical environment to improve their skills on the machines.

Safety commusions

Safety is one of the biggest rules, because we have to take a lot of care about the machines. They are spinning tools, spinning discs in the lathe machine... I will explain everything by the machines. That's very important because it's conventional machines and EVERYBODY has to take care of themselves.



Skateholders

Teacher Miquelina- School Marques de Castilho

Trainer- Catarina Queiros

Teacher who is responsible for the mechanical workshop room

Psintifica for resources and help to develop the project

Context

In the school Marques de Castilho we have the opportunity to realise these ideas. Why not? The students work much with CNC on PC. Why not improving their skills on the conventional machines. Realise a product that they can use and learn something.

This student will work one day in a company and today everything is with CNC. But sometimes you need the conventional machines to do something small or to make something perfect. They should improve their skills on both kinds of machines.

The dice is even something what they can use after it for the class to play some games and have nice aluminium dice's in their hands.

Global objectives of the project

- Learn more to handle the conventional machines better
- Improve their english skills
- Improve their teamwork skills and ability to work in a group
- Improve their leath and milling skills

Name of the sesion = **Mechanical „Dice“ Workshop**

2 hours workshop.

Safety precautions and explain what are going to do.

Splitt the students in 2 or 3 groups one work with the teacher and one with me.

Part 1 milling the cube 15mm x 15mm x 15mm

Part 2 with a small driller make points in the cube from 1-6 on every side one but in summ they have anytime 7. If on this side is 6 on the opposite is 1. If 3 then is 4...

Part 3 with the leathe machine made the corners round. With a 45 ancle plate.

Ressources I want to make it out of Aluminium. Because metal will slowly begin to rost.

Dissemination

I will imploment the project at school probably during school time with students, who have technology classes.

Newspaper

Thomas Schmidle from austria volunteer in Psientifica sponsred by erasmus+ by youth in action. In the project Volunteering Point2.0 Voluntario de Águeada. In Marques castilho I made with the youngsters dices with miling and leath machines. They learned more about their

knowledge because they still learn this in the school and have the opportunity to have these machines in school. Now they have aluminium dices to play with them in the school. It was important to create something that they can use and have fun with it.

Key competences

Communication in mother tongue

During research for the project and look for translation.

Mathematical competences and basic competences in science

Technology

Calculating numbers for the engine speed and the feed rate.

Using lathes and milling machines.

Communication in foreign languages

I communicate with the teacher and students in English. Talk to the teacher to get to know the knowledge about the machines and the techniques know how from him/her.

Learn to learn

Figuring out different learning methods to explain the work to the students.

Digital competence

Improve your writing skills on the computer. Taking pictures

Social and civic competence

Explain everything in front of class, have the full attention. Improve my leadership skills. Have meetings with teacher about the project and handle everything and organize it. To implement the project.

Cultural awareness and expression

I will learn technical words in Portuguese and even more words for daily conversation.

Sense of initiative and entrepreneurship

Getting my idea of the project into action. Promoting my personal project.

Evualition

The Students had some more time to produce the dice. I think to speak in english was difficult with the specific technical words. In the Cnc, computer drawing second session the teacher showed them how to use this. I showed Ethan how to draw with the Inventor programm.

Reflection

The Project was pretty good. I thank Ethan by developing the Project with me and helping with communication.

The first part was realy good only the teacher said how I should mill the dice in his technik because I wanted to show them the way how I learned it in my apprenticeship. But still I could show them some new ways of making it.

The second part the class ethan and me where in die computer room. Wem ade the Dice in the inventor programm. (3D modeling). After I started to writte the programm on a paper. I'm already a bit of rosty with the codes. I needed to translartet me some oft he things.

All in all was it a good Project iunlucky that we didn't finished the dice but it was very cool 4 hours in school enjoeyed them a lot!

Atteachment

