



NCCA

An Chomhairle Náisiúnta
Curaclaim agus Measúnachta
National Council for
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Junior Cycle Applied Technology Classroom-Based Assessment 2: Example of Student Work 06

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My Self-Analysis and Evaluation of Work

Mechanisms

I struggled with the cam project mechanism and the scotch yoke one, when it moves in my cam project instead of just going up in an reciprocating movement it sort of sways while going up and down, like an oscillating movement. In my scotch yoke project it doesn't move smoothly as the bolt needed to be countersunk more



Scroll Saw

Scroll saw work was something I constantly struggled with whether it be on my helicopter project or my cam one. I have cut outside into the designs on both my helicopter and horses on my cam project. Luckily I was able to cover up these small mistakes with my designs but using the scroll saw is still one of my weaknesses

Sketching

When I am sketching my sketches tend to come out rushed and not as neat as they could be, this was particularly noticeable in my cam project poster as I ran out of time and to rush to finish it off. If I had taken my time I wouldn't have struggled with the sketches.



Play video



Conclusion

In conclusion I am better at designing and using plastic than I am at cutting out using wood. For my junior cycle project I will use more plastic or plywood and print out using the laser cutter I will also take my time especially when making mechanisms and sketching. This is because many mistakes I made in 1st and 2nd yr were made due to rushing.



Example of cutting into the project with the scroll saw

Strengths to date

Mechanisms	In 1st yr, I knew nothing about mechanisms or how they worked. I didn't even know what mechanisms were.	In 2nd yr, I learned that mechanisms were something that converted an input motion to an output motion. I got to experience this first hand with both my cam project and peg and slot. This is because the cam they both turned rotary movement into reciprocating and oscillating.
Scroll Saw	In 1st yr, I knew nothing about how to use the scroll saw and was very shaky about using it resulting in accidentally cutting into my design	In 2nd yr, while still shaky when using the scroll saw I began to make less mistakes. However sometimes I still ended up cutting into my design and needing to file it down again.
Sketching	In 1st yr, I had never sketched a project before. Starting on my poster of a helicopter I was complete took by surprise. I had no idea what to do or how to do it.	My sketching in 2nd yr got better especially after doing the chapters on drawing. It still looked rushed but it was much neater than in 1st yr.
CAD	In 1st yr, All I knew about CAD was that the machine was a 3d printer (not true). I had no idea how it worked or even how to design things to 'print' them out.	In 2nd yr I learned what CAD was. Firstly it wasn't a 3d printer but it was a laser cutter. Learning how to design on corel draw™ was tricky but once I got the hang of it, there was no stopping me. Last year I printed many things on the printer including a parrot, a palm tree, a sun and even a box made out of leftover plastic.
Design	Even in 1st yr design and creativity was very important to me however, sometimes I didn't carry it out very well.	In 2nd yr my design skills got better I was better at coming up with original ideas and bringing them out from the page. I was able to make these designs without struggling to keep up and I didn't run out of time.

Introduction

In 1st yr, I knew nothing about applied technology except that it was all about circuits and wires (which is not true). It was never really a subject I thought about doing, looking back my skills have changed from not knowing how to solder to just having to put the circuit on the board.

Teacher comments

With all of my projects I was told that they were very creative and worked nicely, with my cam and slot I was told to have filed down the horses more



You can see here that the CAD was printed and glued in layers.

Strengths

Design

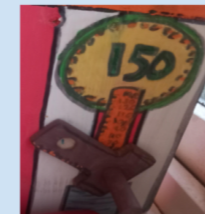
Design and Creativity is something I have shown well in all my projects. This is because the overall design is important to me. My scotch and yoke project was designed to look like a hot air balloon rising over a sunset, my cam project was a carnival and my peg and slot project was a parrot.

CAD

CAD is one of my strengths because during the peg and slot project I designed a parrot and was able to separate it into many different colors. Then I was able to design a palm tree and leave a hole big enough for the screw to go into.

Presentation

Presentation is something I'm good at because I always sketch a plan of my project before I start, for example in my cam and follower project I drew a good few designs of what I wanted the backboard to look like before I decided what to paint it like.



You can see here that my design is very strong but the mechanisms were made with too big of a gap



This poster was created using Google Drawing.

[Click here](#) to view the video referenced above.

Teacher annotations using the Features of Quality

The annotations capture observations by the teacher, using the features of quality, with a view to establishing the level of achievement this work reflects. The annotations and judgments were confirmed by a Quality Assurance group, consisting of practising teachers and representatives of the NCCA, the Inspectorate, the State Examinations Commission and the Oide support service.

Teacher annotations

Self-analysis of coursework elements:

The student identified a broad range of coursework elements over the course of 1st and 2nd year. This was evidenced through the use of primary sources and a skills table. This allowed them to make insightful detailed observations in relation to each coursework element presented and to conduct a comprehensive self analysis on the development of their skills to date.

Making judgements:

Judgements were made on areas of strengths and areas for improvement and the teachers comments supported the student in this context. The student demonstrated a high level of awareness of how their judgements would inform future work. A greater awareness could have been demonstrated by providing more specific targets for improvement in their chosen skill areas.

Communicating their CBA:

The presentation of the findings was of an excellent standard; using a highly effective interactive poster which was very appealing. The use of photographs and a video of authentic project work framed the context for which a comprehensive self analysis on the development of their skills to date could be conducted. The presentation allowed for a critical consideration of what information best communicated their Classroom Based Assessment.

Overall judgement:  Exceptional

