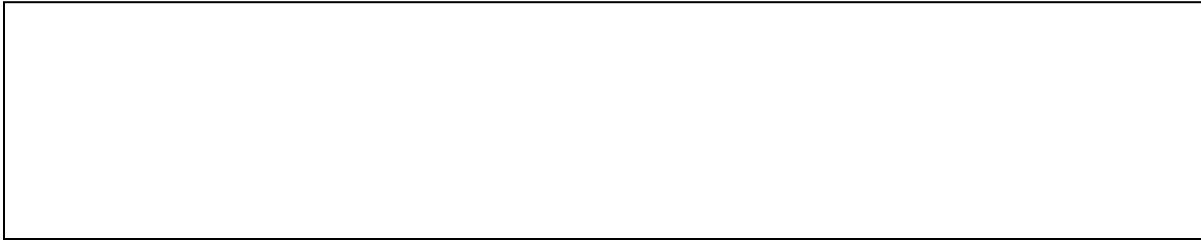


Design Portfolio Template

Picture of completed mechanism including exam number written in large text



Exam Number:

Analysis of Brief

Type in the introduction, There are...

And define all the words into your own language and rewrite the problem in your own words; this is your problem how are you going to solve it. Interpretation of the problem is a personal choice but the also include the guidelines or restrictions.

(Periodically what does this mean?)

What must the tractor have and list the restrictions, 9V and length!

(2 pages)

Investigation of Solutions

Internet solutions, other devices that use a similar mechanism-

Alternative design solutions

Diagrams and sketches, this is the actual research phase, going to the shop to look at toy tractors of ejector pin mechanism. Getting sizes and recording them.

Solutions – should have at least 3 of these all differing in some way no matter how small, diagrams and test is necessary for this, (5-6 pages)

Criteria for selection of solutions

What made you select this from the first part, and then another thing from the second sketch, selection is the formulation of the project. (1-3 pages)

Working Drawings/Plans

A drawing for every component is necessary. Fully dimensioned and correct orthographic, CAD may be used. From the working drawings a parts list is derived. A calendar of events is included here, when are you going to make this and why is in this order.

This section may be (7-12 pages)

Making/Diary

Discuss problems in making and highlight them. Keep a neat diary of what you did in school each day and include in the report. (4-7 pages)

Materials and Finishes

Why did you use brass instead of aluminum, need to justify material selection based on properties not because it looks good, make it reflect reality, or at least try, wheels from timber painted black, remember these are model not production line products. Use of digital camera good here (3-4 pages)

Testing and Evaluation

Does it work, why not, if not where is the problem? Need to be critical here not *everything in the garden is (was) rosy*, be truthful, and talk about your skills and improvements to the project. (3-4 pages)

N.B.

The portfolio is a working document and is not left till the last thing. An examiner can see through folios easy believe me, incorrect tense is very easy to spot, dates on pictures. Use color where necessary but do not over do it. Keep text at 12 line and half spacing, Times New Roman it's easier to read. Remember a picture freehand sketch paints 1000 words. Borders are effective and give a good document the *how's it going affect*.