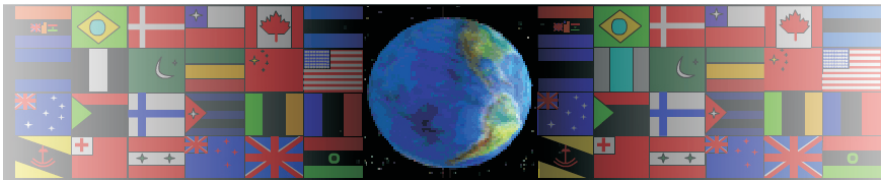
DESIGN PROJECT CHECK LIST

On behalf of The World Association of Technology Teachers

W.A.T.T.



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The ‘Check List’ can be printed and used by teachers and students. You have only finished a design project if you work through the sections/pages that apply to your subject and type of project. This normally involves completing most of the sheets. Remember to ask your teacher for advice regarding which sheets need completing. Usually the pages are attempted in order as this will take you through the entire design process. It is recommended that you view the website section 'Design Process' (www.technologystudent.com) before attempting each design sheet . The website explains how the sheets can be completed and gives examples.

COURSEWORK CHECK LIST

NAME:

FORM:

Rich Picture	At the beginning of the project place the theme at the centre. Put words / themes that are connected to it, around it.	
Problem/Client Requirements	State the design problem clearly. Do not say how you are going to solve the design problem.	
Design Brief	Show clearly how you intend to solve the problem.	
Analysis	List as many questions as you can about the project you are attempting. E.g.: What materials can I use ? What safety considerations must I keep in mind ? Etc....	
Synthesis	Answer the questions in the analysis.	
Planning	Use a **time chart** and **flow chart** to plan your use of time.	
Research TO GET A HIGH GRADE YOU MUST SHOW THAT YOUR RESEARCH IS WIDE AND VARIED ! !	If you are to achieve a high grade you must put effort into this section. Remember all research must be relevant to your project. Constantly refer to your project. What materials are suitable for your project ? **Materials Sheet** What **ergonomic factors** apply to your project ? What **safety** factors apply ? Have **letters / emails** been sent to manufacturers / shops ? Have you researched any details in the library ? Internet ? **Existing Products Sheet** Have you carried out any interviews with people to help you identify ways of solving your design problems? If so, did you use a **questionnaire** ? Is it in your folder or did you record it on cassette ? Have you researched **joints** and **fixings** Have you included electronics research (a variety of **existing circuits**). You can include graphs / pictograms, in fact anything that involves research. How are existing products manufactured ? Are **mechanisms** a part of your project. If so, include mechanisms research and how cams, gears, linkages etc... could be used for your project	
Specification	Once you have completed your design you should specify in a paragraph or two what exactly you are going to do to solve this problem. Always refer to your research. For example: My research shows me that aluminium is the best material to use because it is light. The ergonomics research I carried out suggests that the item must be designed to fit the hand. Etc....	
Generation of Ideas	Generate a range of ideas, with detailed notes. The ideas should be different and not just the same idea slightly changed. Include environmental considerations and early circuits.	
Development	This is another very important section. To get the higher grades you must take your best idea and develop it further. One way of starting is to draw your **best idea again and point out areas that can be improved**. Develop four or five areas. Explain how a mass production line could be used to produce your idea and draw a **sequence diagram** of manufacture. Use a spreadsheet to **cost the project**. Use a **systems diagram** (input, process, output) to show how the solution will answer the design problem. Develop a circuit or **microcontroller circuit** Produce a sheet showing how the technology/design concept you have developed could be applied to other designs. How is **Health and Safety Law** applied to your design? **Computer Aided Design Sheet** - A sheet showing how you have use computer software to design an aspect of your project. **Circuit /Microcontroller Development Sheet** - How are you going to use a PIC circuit? **Flow Chart / Programming Sheet** explaining how your program controls the PIC circuit. Make a number of simple models leading to a realistic **model / prototype** of your design. Evaluate your models and explain how the model making exercise has help you develop your design.	
Solution	Produce a **working drawing** of your solution with a parts list. This must have measurements and constructional details. You may prefer to produce a **Parts Sheet first**. A **three dimensional** drawing can also be attempted.	
Manufacture	Produce a planning sheet to show each stage of production - a **flowchart/time chart**. Make a final model. Make the solution.	
Evaluation	Evaluate your product. State the good points and areas for improvement/development. Does the solution answer the design brief ? Spend some time on this section. You should include social issues, health and safety, ethical and environmental issues. (See additional information sheets).	