GCSE Agreement Trial October 2012.

10th Oct - Beechlawn Hotel / Belfast;
12th Oct - Rosspark Hotel / Ballymena;
17th Oct – City Hotel / Armagh

technology and design

Judith Ryan: CCEA Educational Manager

Wesley Hamilton: Chair of Examiners
Arthur Rice: Chief Examiner

Raymond Moffatt: PM
Seamus McCaughey: APM
Fergal McGilligan: APM
David Stinson: APM
Mark Winning: APM

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Day 3: 17th Oct – City Hotel / Armagh

Raymond Moffatt: PM
Robert McGregor APM
Mark Winning APM

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To provide opportunities to:

- Highlight key points in the PM reports;
- Provide clarity / guidance in relation to Controlled Assessment Tasks U4/U5;
- Clarify mark descriptors / mark indicators;
- Trial mark and discuss a range of coursework outcomes;
- Have individual discussions…

GCSE: Technology & Design

09.30 - 09.45	**Tea / Coffee** **Welcome & Introduction:** PM; CCEA Ed Manager Judith Ryan
Unit 4: 09.45-11.00	**Design Assignment Unit 4:** **PM Briefing -** U4 Report findings, Appendix 1, Mark Descriptors; **Trial Marking of U4 Portfolios / Feedback.**
Unit 5: 11.00-11.30	**Controlled Assessment Task II: Unit 5 Product Design / Systems Design:** PM: Report/findings; **Walk through Exemplars: Appendix 2 & 3: Mark Descriptors: PM/APM's**
Unit 5: 11.30 -12.30	**Trial Marking: Unit 5 Product Design / Systems Design** **Workshop: -Trial Marking of coursework Unit 5 Portfolios Systems & Products.**
12.30-13.00	**Lunch**
13.00-13.30	**Feedback: Unit 5 Systems Design / Product Design.**
13.30-14.00	**Opportunity for individual discussions.**

Unit 4: Task Taking:

Unit 4 Controlled Assessment Tasks: I Taken in Year 11 **or** 12: **(Tolerance +/- 4)**	
Assignment set by CCEA each year and supervised by teacher/s	Brief/s issued to schools in September. Brief/s changed every year.
Research supervised by teacher/s	Research Time
Candidates supervised by Teacher	Design Task Unit 4:
NB: 15 hours approximate time - guidance! **Ref: s/if/49/11 March 2011**	Teacher marked assignment & sample Tasks forwarded to CCEA by **1st May 2013**.

Unit 4: Themes/Design Brief 2013

NB: Unit 4: Themes/Design Brief to be submitted in May 2013.

Design Brief 1: **Chewing Gum Disposal Bin;**

Design Brief 2: **A Safety Helmet;**

Design Brief 3: **Disaster Relief: Lightweight Emergency Shelter.**

Unit 4: Themes/Design Brief 2014

Design Opportunity 1: Design a Bench Top Cordless Drill Support Stand

Design Brief 1:
Design a product/system that will **support a cordless drill** for the school or a home workshop. The device should allow for vertical reciprocating movement.

Design Brief 2:
A **musician requires a device** that will be placed on a table to **support sheet music** when practising. The device must be compact, collapsible and be portable.

Design Brief 3:
Design a **beverage holder to be used inside a vehicle** that will support securely a cup, beaker or drinks can. The holder may be attached to any accessible part inside the vehicle. The holder should also be easily remove for cleaning purposes and be collapsible so as not to cause restricted access.

Unit 4 Task Taking: Design Assignment
Appendix 1 (page 28) 20% Weighting.

Students' preparation work is likely to include research on existing products, materials, components and processes. **They use their research and preparation to help them produce a final outcome for assessment.** We recommend that the research materials students use to help produce a final outcome be limited to a maximum of **three A4 pages** (with information on only one side of each sheet).

Students then complete the **design aspect** of the task under informal supervision within the classroom. They may use a **maximum** of **four A3** design sheets.

5 Grade Descriptions

Rewarding Learning

Grade	Description
A	Candidates recall, select and communicate detailed knowledge and thorough understanding of design and technology, including its wider effects. They apply relevant knowledge, understanding and skills in a range of situations to plan and carry out investigations and tasks effectively. They test their solutions, working safely and with a high degree of precision. They analyse and evaluate the evidence available, reviewing and adapting their methods when necessary. They present information clearly and accurately, making reasoned judgements and presenting substantiated conclusions.
C	Candidates recall, select and communicate sound knowledge and understanding of design and technology, including its wider effects. They apply knowledge, understanding and skills in a range of situations to plan and carry out investigations and tasks. They test their solutions, working safely and with precision. They review the evidence available, analysing and evaluating some information clearly, and with some accuracy. They make judgements and draw appropriate conclusions.

Unit 4: Design Task

Guidance	Evidence
	Students should show evidence of:
Students should provide reasons for their choice of research materials.	• the appropriateness and quality of their reference/research materials;
They should include a range of graphical techniques, such as two dimensional, sectional view(s), pictorial and exploded views, and annotation.	• their initial ideas or thoughts, concepts sketches, notes, and how they used their reference materials as a stimulus for inspiration;
They should show attention to detail in their constructional design, with clarity in graphic details and using exploded sketches where appropriate.	• designing for manufacture, highlighting how the parts are assembled and fit together; and
They should give reasons for their choice of materials and finish.	• their selection of material(s) and preferred finish.

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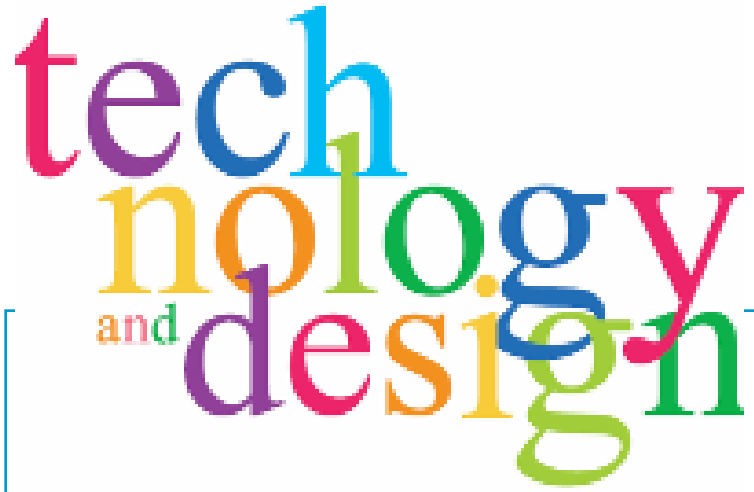

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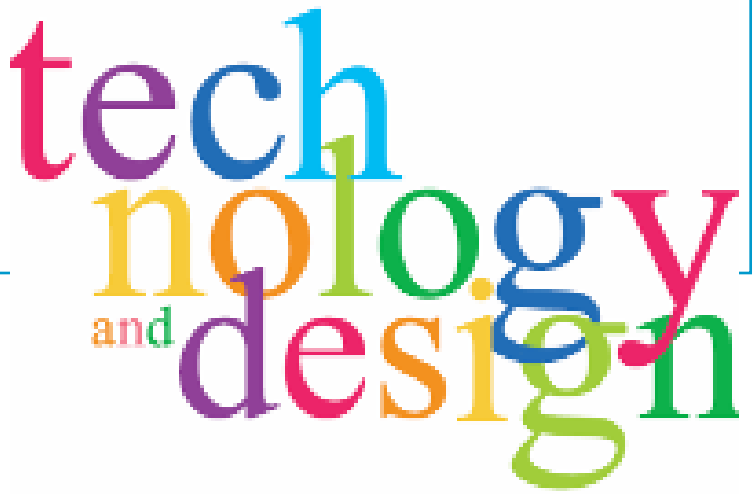


PM Report Unit 4: 2012.

U4 Amplification

RESEARCH SHEET 1

W5

Why? – Research shows that good lighting reduces eye strain

Who? – This device is aimed at teenagers over the age of 12

Where? – It is used mainly in the bedroom

When? - This device is to be used at night

What? - It is a night time reading light

I would rate it 4.5 books out of 5 as it raps round your forehead and lights up the book using LED's.

This device has a modern look with and LED's to illuminate the page in front of you

LED reading ligh powered by 3 A batteries

It clips on to the back cover of a book and lights up the page with super LED's that are 3 times more powerful than regular LED's

140mm

168mm

Flexible gooseneck ensures lighting where you want it

Padded clip protects book

This device comes in 5 different colours pink, black, blue, white and purple which give it an attractive look for teenagers.

100,000 hour bulb life

I would rate it 4 out of 5 books as it clips on the back cover well and it has super LED's that illuminate the page well

This device wraps around the back of your neck so you don't have to hold a light

Package size = 350mm x 250mm x 100mm

I would give it 5 books out of 5 as it needs no hands and is flexible as well

Pow (inc abo

Candidates are expected to articulate their understanding of the design context

Rewarding Learning

The 5 W's of the Night light project
Final idea of what I like the lamp to be like

The 5 W's	Information	Pictures(Fig)
WHO: Who will buy or use it?	Anybody from children to adults. There are unique designs on the back of the lamp, anything from Cartoon figures to land scape to fit from children to adults.	FIG 1 The neck of the lamp is something like this, but it's made of aluminium
WHAT: What is it designed to do and what is it made from?	It is designed as a power saving studying or reading lamp. It is made with light plastic, Energy saving light bulbs and aluminium or any other light, solid shiny metal for the neck of the lamp(See fig 1).	FIG 2 The lamp will sit on the wall like this.
WHERE: Where do you place it and at what environment ?	It is designed for indoors, so it's light won't have any special features such as water proof, but will prevent some water from going in. The transparent glass or plastic (haven't decided) can be taken off, to a less transparent, creamy coloured cover for what ever other occasion other than reading.	FIG 3 The lamp head can be removed and put on the wall above bed for night time reading.

Candidates are expected to articulate their understanding of the design context

WHEN: When is it designed to be used?	It's a night time reading lamp, so obviously used at night time. It fits On the wall, above the studying or reading place (fig 2). The head of the lamp is removable and can be put above the bed for reading before sleep(See fig 3). The product will provide the nails, and the structure for putting on top of bed and above the table.	**FIG 1** 
WHY:	Designed for people who likes reading at night. It could also used as a general lamp, by taking off the head and put it above the bed.	**FIG 2** 
Conclusion:	So basically what I am looking for is a night lamp that can be both used for studying or home work, or reading before bed, or just a general luminous light at night time. I'd like it to be light, plastic preferred for the head of the lamp and aluminium for the neck. One above the study desk, another above the bed. So there will be 2 lamp heads for each kit.	**FIG 3** 

Candidates are expected to articulate their understanding of the design context

Rewarding Learning

Table 1.

Who would buy this product?	• Students who prefer to study at night. • Elderly who like to read but have poor eyesight. • People who generally like reading.
What is this product used for?	• This product will be used to light up books in the dark. • Can also be clipped onto a stand and used for a bedside light.
Where can this product be used?	• This product is mainly designed for use in bed at night. • It can be used on long journeys (for example planes / boats) • At a desk.
When will this product be used?	• This product will be used at night time. • In dark rooms without much light. • Any time to save power.
Why would this product be made?	• To aid students in studying late at night. • To aid everyone who likes to read. • To save power and cut electric bills. • To help the elderly with bad eyesight.

Candidates are expected to articulate their understanding of the design context

Fig

What functions/qualities could it have?

1. Rotational head/ lamp piece
2. different filters – to make it easier for some people to read and more appealing
3. excellent grip
4. battery operated with easy accessible compartments

How it could be more appealing

1. It could be sold in more than one colour
2. it should not be following the standard reading lamp shape.

How should it work

1. Should be easy to operate
2. The batteries go in the same place and is very easily to access.
3. To attach it to something simply bend the legs in to position.

How could it be put together

An easy way to put it together could be using detachable segments connecting to ball joints (this could be used so its easier for the likes of the slightly younger and older generations although if used by child parent supervision could advised)

What am I trying to achieve

I am trying to create a lamp that is stylish, modern, fits in with most things and can be appealing to a very large target audience. Something that can be easily used by the younger and older generations.

Conclusion

Having looked at what is already out there, I have learned that my lamp should multi functional e.g. attach to many thing such as the bed, the wall even just standing up straight. It should cost around £15 - £25. Most importantly that it should be high quality and appealing to many people. It should be unique.

How do we Research? www.ehow.com

Teacher Guidance / Prompts!

Analysis:

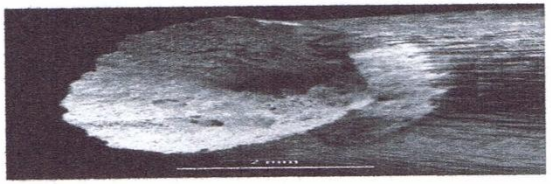
Consequences of poor lighting when reading?
Symptoms & indicators?
Functional Considerations?
Room light level? Digital meters?
LED, Bulb, Fluorescent lighting, HD,?

HSE / H&S: a properly lit casual reading area should attain 300-500Lux
Highly detailed work area 1100 to 2100Lux
Accepted wattage for reading is 100 watts, Field of light…

Appropriateness and quality of the reference/research materials

Metals:

- A metal is a chemical element that is a good conductor of both electricity and heat.
- Metal is a nice material to use as it is strong, light and flexible and have a smooth feeling.
- The best suited material I think is duralumin because it is light grey and has a melting point of around 650 degrees Celsius. This is an advantage of a night reading light as the product will not melt when it heats up. It is also strong and light in weight.



Plastic:

- Wood is a hard, fibrous tissue found in many plants. It has been used for hundreds of thousands of years for both fuel and as a construction material.
- Wood is a good material to use as it is strong and heavy.
- I think the most suitable wood to use is mahogany because it is strong and medium weight.

Extrusion: Extrusion is a process used
profile. A material is pushed or drawn tl

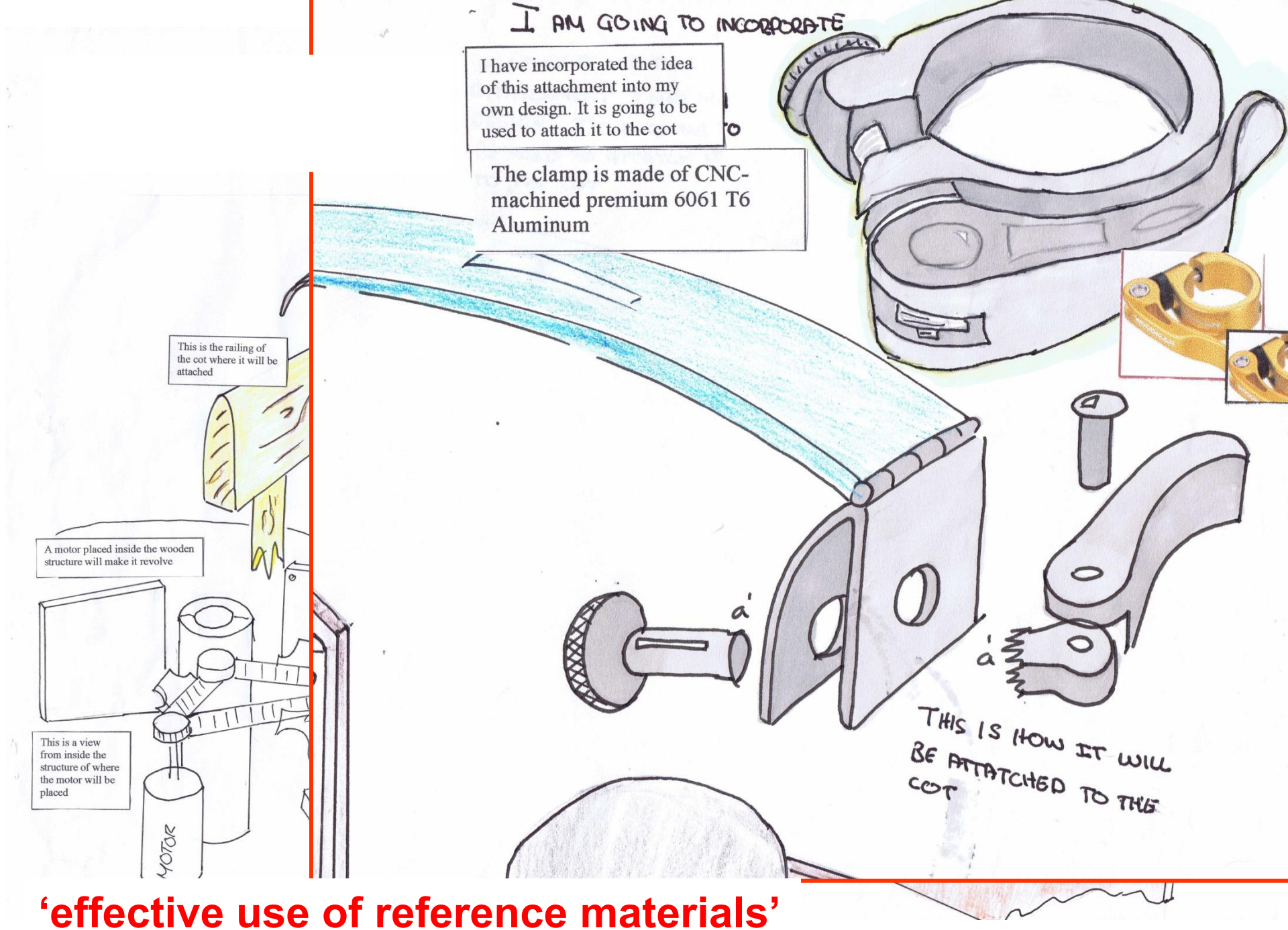
Extrusion: Extrusion is a process used
profile. A material is pushed or drawn tl

Injection moulding: Injection mould
process for producing parts from both t
materials. Material is fed into a heated
where it cools and hardens to the confi

Blow moulding: Blow moulding or bl
a manufacturing process by which hollo
parts are formed. In general, there are t
blow molding, injection blow molding, a
process begins with melting down the r

molding material, generally preheated,
The mold is closed with a top force or p
material into contact with all mold area
the molding material has cured.

Calendaring: Rotational molding, als
as rotomolding, rotocasting or spin cast
is a molding process for creating many
hollow items, typically of plastic.

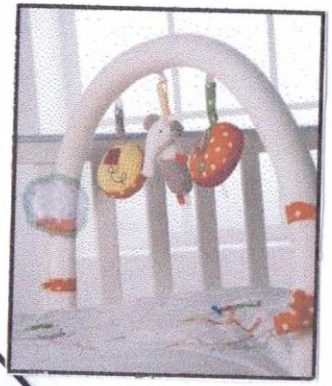


‘effective use of reference materials’

onnar 11L2
chnology

Concept 4

The characters faces would be placed onto the hanging frames making it an interactive experience for the baby



This was wrapping around th

Mickey

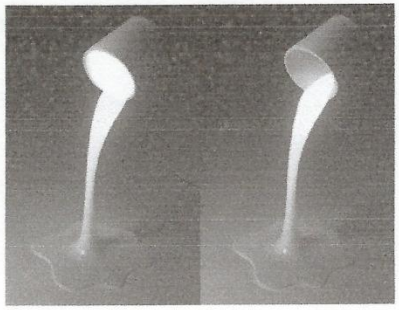
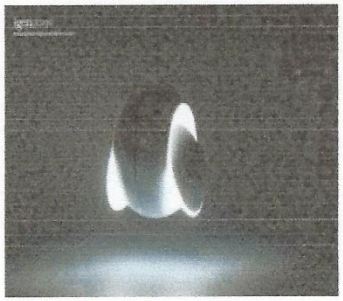
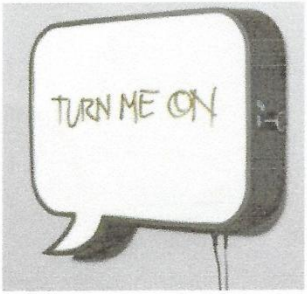
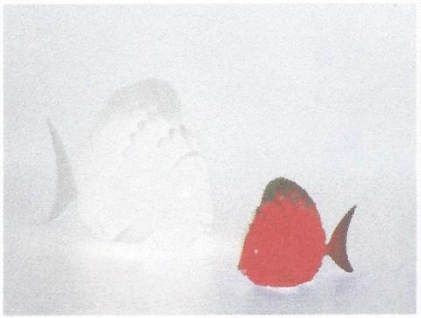
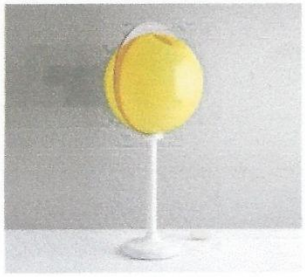
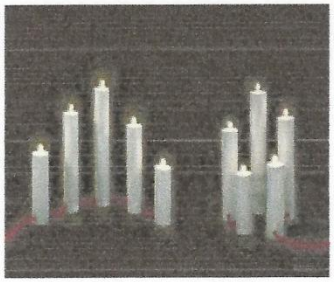
Donald Duck

Goofy

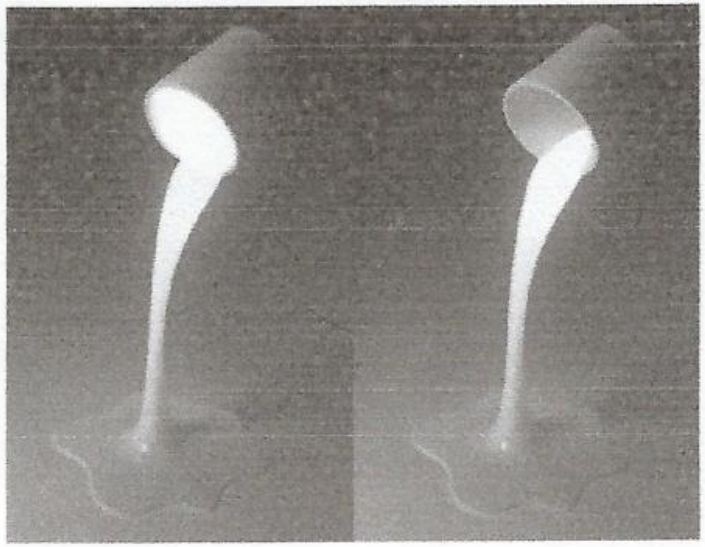
The faces will hang letting the baby play with them

pt 3

Effective use of research materials.

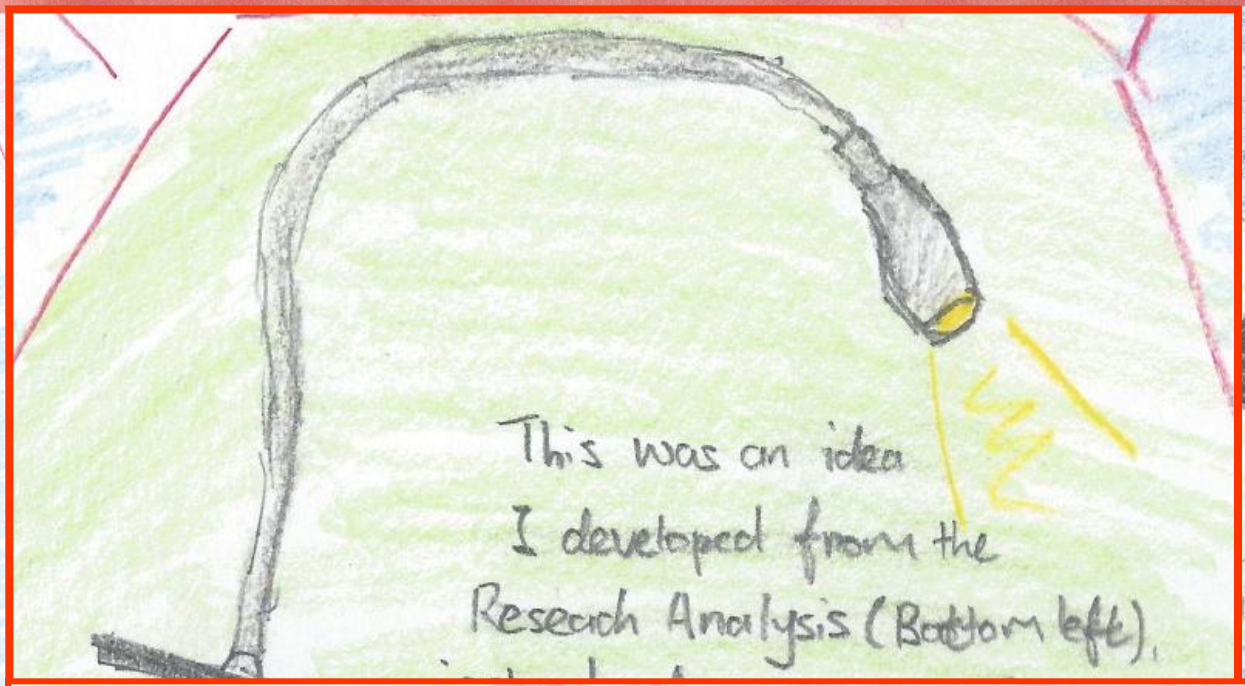
	This lamp looks very funky and clever, with the neck and base looks like a spilled liquid, and luminous from the inside of the cup.		This tyre looking lamp opens up at the side when turned on, it's very clever, same idea as 2 lamps above, but looks more for older people.
	I like this lamp because it have writing on it. I was thinking maybe put writing on my, but anything you want to say, you can order it.(no swear words)		Pretty fish lamps for kids, with a lot of size and colour to chose from. Ideal for lighting. Nothing much to say about it. Don't drop it...?
	This is a picture of a yellow globe. Maybe yellow illuminates more light, but I thought earth was blue and green(?)		Candle looking lamps for old fashion people. Not sure if it's very bright. Definitely don't want one. Looks rubbish.

Effective use of research materials.



This lamp looks very funky and clever, with the neck and base looks like a spilled liquid, and luminous from the inside of the cup.

Function - Movement - Adjustable, flexible, fixed height,
Direction of light beam, light effect - desirable feature?
Stability?
Robustness?
Bulb Technology? Fitting the bulb? Type of bulb/LED/HD/Halogen/Heat?
Safety? Adaptor DC/AC 240v?
Lightweight?
Material/s?
Effective Research: Gaining Knowledge to help in the Design Process



This was an idea
I developed from the
Research Analysis (Bottom left).

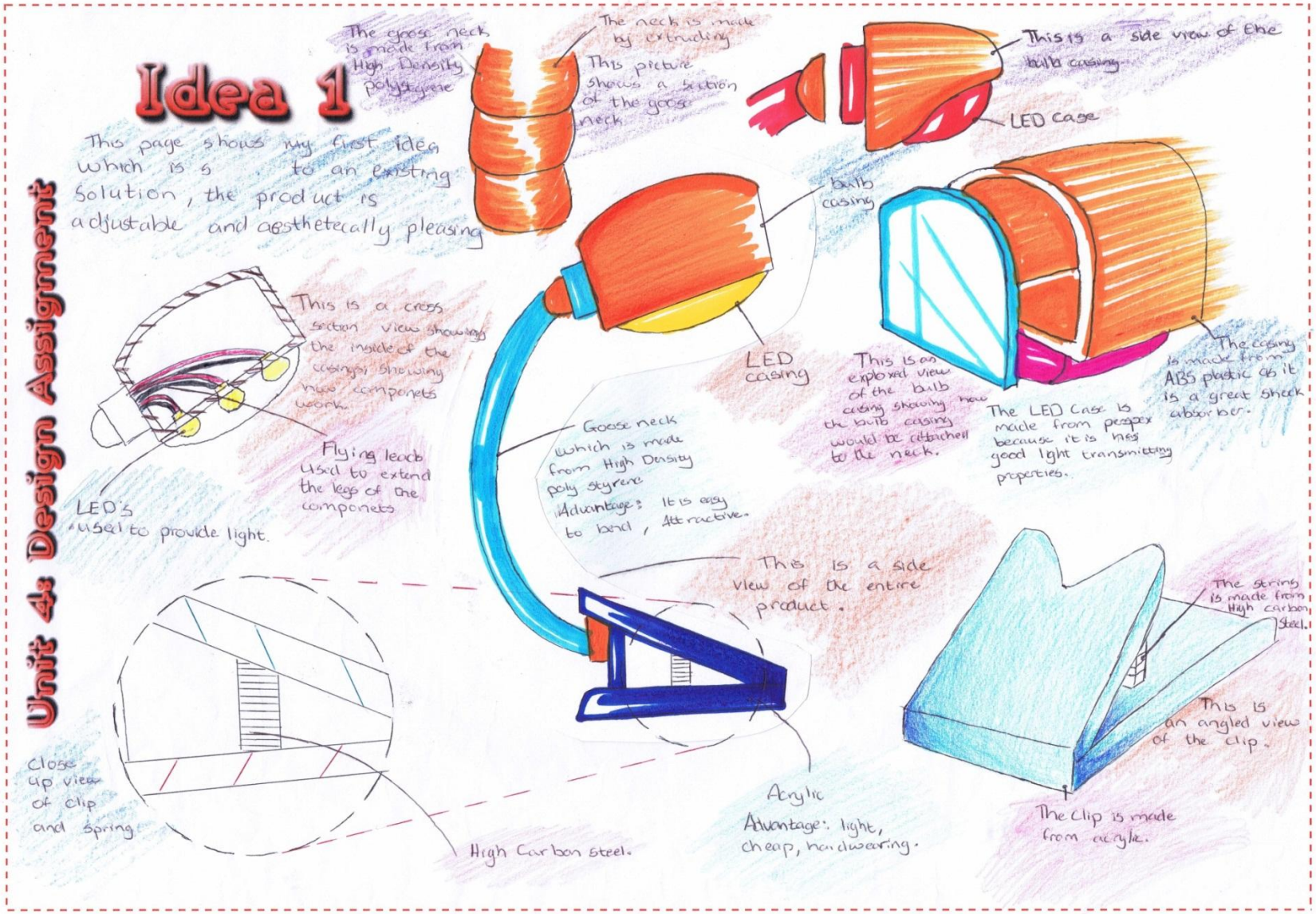
sinister idea, the head is
hang from the roof. Suitable
for boys, looks scary but even
for boys sometime it's distracti
from work.
The bulb is inside the skull,
Luminating the whole thing.
It's battery powered, inside the skull

bowling pin lamp.
unique idea powered by main
very light, making it portable

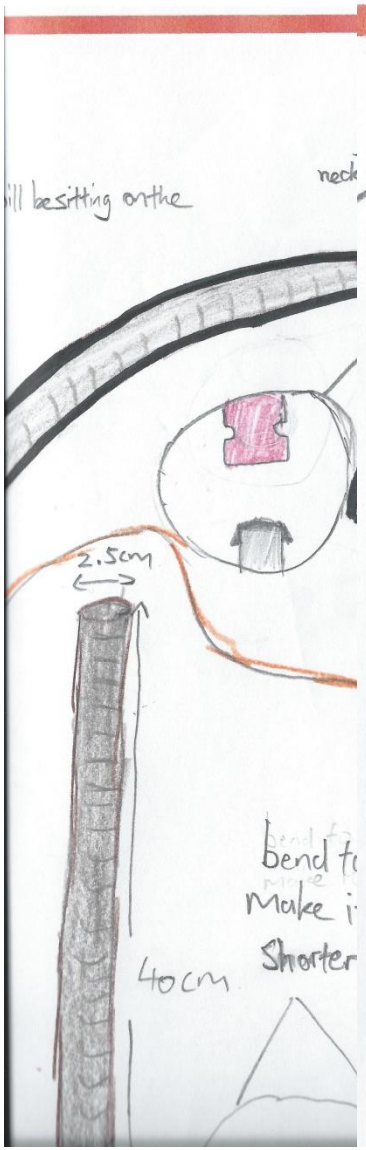
you buy it

bowling pin lamp.
unique idea powered by main

‘a range of freehand sketches’



Material(s) selection and **reasons** for use: (10 marks).



battery pack
(2 AA batteries)

Materials, advantage
disadvantages.

Materials	Advantage	disadvantages
head, ABS plastic. (injection molding)	cheap, shatter resistant mass production easily.	breaks easily but doesn't shatter.
neck, Aluminium (anodizing)	strong, light, bendable, lasts very long looks nice	expensive, it's a metal.
base. ABS plastic (injection moulding)	cheap. easy to mould into the shape you want shiny.	breaks easily again.

Sketching Types:

http://www.hongkiat.com/blog/basic-guidelines-to-product-sketching/

Rewarding Learning

1) The Doodle Sketch **2) The Thinking Sketch**
3) The Technical Sketch **4) The Presentation Sketch**

Process sketches: The main purpose is about **understanding an assignment**. There's more writing that sketching. A focus is **examining problems and analysing the context**;

Ideation sketches: Sketches that are created by designers while **developing** an idea of a product. Mainly roughly made and **without details**;

Explanatory sketches: Created to **explain function, shape and structure** of a design concept. These are sketches presented to a client. Readable to everyone;

Persuasive sketches: Finishing sketches that are usually created in digital software such as CAD-programs, Adobe Photoshop and others. **Detailed** and colourful to influence audience and **sell a design concept**.

Unit 4: Please use the Amplification Descriptors!

Mark Descriptors: U4 Amplification:	**Candidates should demonstrate:**	**Band (60)**
Understanding of the **design context;** Good quality **relevant research;** **Appropriate annotation.**	**Understanding & analysis of their research;**	**(7-10)**
Annotation included; **Effective use** of reference materials ; Evidence of connections to **quality design outcomes.**	**Design capability / Creativity / Thinking Skills;**	**(16-20)**
A range of **freehand sketching techniques demonstrating good skills** including detailed annotation	**Graphics / Communication skills;**	**(16-20)**
Appropriate **materials** selection with good **justification** for use.	**Knowledge & Understanding of Material/s application.**	**(7-10)**

Unit 4: Exemplar 'A':

pdf

Mark Descriptors	Moderator's Comments	Band
Understanding of the **design context;** Good quality **relevant research; Appropriate annotation.**	Evidence of some understanding of the design context; Relevant research with good annotation but lacks detailed analysis.	**(7-10)** **Middle**
Annotation included; Effective use of reference materials ; Evidence of connections to **quality <u>design</u> outcomes.**	Links to research evident but not always explicit; Good links are established; Evidence of creativity and development of concepts with good clear annotation in terms of materials and selection of appropriate components.	**(16-20)** Top

Unit 4: Exemplar 'A': 8014

pdf

Rewarding Learning

Mark Descriptors	Moderator's Comments	Band
A range of **freehand sketching techniques demonstrating good skills** including detailed annotation	A good range of freehand sketching techniques demonstrated to a very high standard including 2D, 3D, sectional, exploded Etc.; Detail of how **parts fit together** is limited! A clear train of thought evident supported with good annotation.	**(16-20)** **Top**
Appropriate **materials** selection with good **justification** for use.	Materials identified with justification through the research and design portfolio. Table included.	**(7-10)** Top Total Mark **57**

Unit 4: Exemplar 'B':

pdf

Mark Descriptors	Moderator's Comments	Band
Understanding of the **design context;** Good quality **relevant research; Appropriate annotation.**	Only some understanding of the design context; (Guidance sheet) included? Good quality and relevant research showing a depth of analysis with appropriate annotation.	**(7-10)** **Top**
Annotation included; Effective use of reference materials ; Evidence of connections to **quality <u>design</u> outcomes.**	Research used as a stimulus for inspiration; Research referenced with clear evidence of connections to quality design outcomes; Effective use of reference materials with good annotation demonstrating a deeper thought process. Clarity in layout!!	**(16-20)** **Top**

Unit 4: Exemplar 'B':

pdf

Rewarding Learning

Mark Descriptors	Moderator's Comments	Band
A range of **freehand sketching techniques demonstrating good skills** including detailed annotation	An effective range of freehand sketching techniques demonstrating good skills; Assembly details clearly illustrated throughout the portfolio demonstrating technical knowledge.	**(16-20)** **Top**
Appropriate **materials** selection with good **justification** for use.	Appropriate materials identified with good justifications for use.	**(7-10)** **Top** **Total Mark** **56**

Unit 4: Exemplar 'C':

pdf

Mark Descriptors	Moderator's Comments	Band
Understanding of the **design context;** Good quality **relevant research; Appropriate annotation.**	No explanation of the design context; Relevant images collated however annotation is limited; Little evidence of connections to the design brief.	**(1-3)** **Top**
Annotation included; Effective use of reference materials ; Evidence of connections to **quality <u>design</u> outcomes.**	Very little explicit reference to research images in section 1; Three different ideas explored with annotation regarding manufacturing processes and components; Little evidence of development of idea/s.	**(8-15)** **Middle**

Unit 4: Exemplar 'C':

Mark Descriptors	Moderator's Comments	Band
A range of **freehand sketching techniques demonstrating good skills** including detailed annotation	A good range of freehand sketching techniques with illustrations of some fabrication details; Concepts also supported with good annotation; Assembly details limited; Overall the attention to detail is lacking for high marks.	**(8-15)** **Top**
Appropriate **materials** selection with good **justification** for use.	No evidence of material referenced in research sheets; Limited comments justifying the selection of materials on the design sheets; However, the final design sheets includes a table listing numerous materials with reasons for selection and balloon referenced to the final proposed idea.	**(7-10)** **Middle** **Total Mark** **40**

Unit 4: Exemplar 'D':

pdf

Mark Descriptors	Moderator's Comments	Band
Understanding of the **design context;** Good quality **relevant research; Appropriate annotation.**	The design context is not stated; Limited analysis evident; Research with some relevance though lacking in depth.	**(7-10)** **Bottom**
Annotation included; Effective use of reference materials ; Evidence of connections to **quality <u>design</u> outcomes.**	Some evidence of research being connected to outcomes and used as a stimulus; Annotation is included but lacking in details	**(8-15)** **Top**

Unit 4: Exemplar 'D':

Mark Descriptors	Moderator's Comments	Band
A range of **freehand sketching techniques demonstrating good skills** including detailed annotation	An range of freehand sketching techniques demonstrating a degree of skills; Some assembly details evident to aid design for manufacture.	**(8-15)** **Middle**
Appropriate **materials** selection with good **justification** for use.	A limited range of appropriate materials identified; Little evidence showing justifications for use.	**(1-3)** **Top** **Total Mark** **34**

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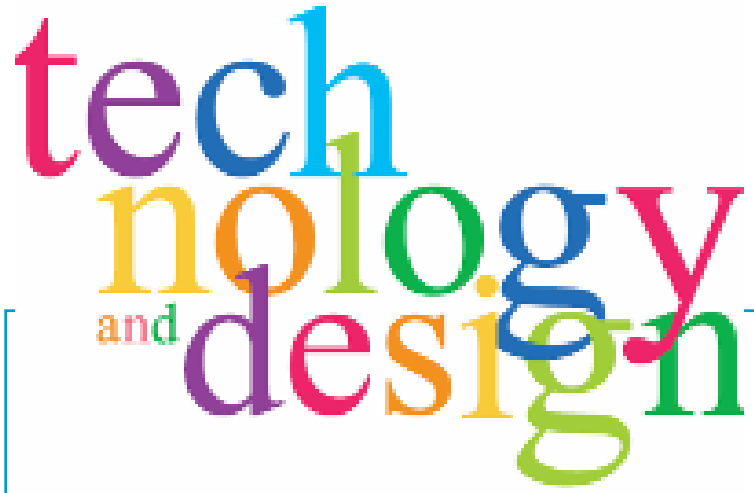

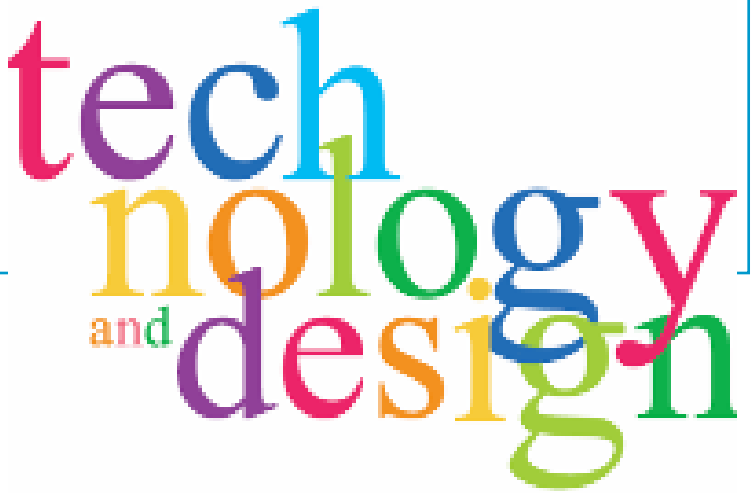

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PM Report Unit 5: 2012.

Unit 5: Task Taking Design Assignment:

Controlled Assessment Tasks: II	**Year 11-12 (40%)**
	A choice of **four themes posted on CCEA website.**
Assessed by Moderator	**(10)** X A3 Page Portfolio **First (10) pages only!**
Project:	Project: **Product** or **Systems** Design
All coursework marked by **1st May Deadline.**	Assessment by **sample** and by external Visiting Moderation.

Unit 5 Task Taking: Portfolio & Product Systems Design:

Achievable Tasks within the allocated time:

1. **30 Hours approximately** (guidance) for Portfolio + Product;
2. Building upon Design and Graphical skills developed in Unit 4 - consider CAD;
3. Resource / manufacture System + housing / model;
4. Emphasis on manufacturing skills that demonstrating accuracy, precision and quality of finish;
5. Now less emphasis on a broad range of manufacturing processes.

Unit 5 Task Taking: Portfolio & Product Systems Design:

Achievable Tasks within the allocated time:

6. Resource a system and show evidence of understanding and include **one alternative** system;
7. Draw the system/s from first principles, include artwork;
8. Emphasis on quality of :- positioning components, soldering, mounting pcb or equivalent for pneumatically / mechanical systems and manufacture of housing / casing / model.

Unit 5: Themes/Design Brief 2013

Theme 1: Design and make play apparatus in the form of a product or system that will help pre-school children develop skills;

Theme 2: The local tourist office is launching a campaign to encourage visitors to the area.
Design and make a product or system that could be marketed to promote tourism;

Theme 3: Design a product or system associated with entertainment that is appropriate for a teenager's bedroom;

Theme 4: Identify your hobby and design a product or system that would assist with this interest.

Unit 5: Themes/Design Brief 2014

Theme 1: The Disabled
Design and make an **aid for a disabled person** that **supports and improves their lifestyle.** The product or system may be designed specifically for an individual in their everyday environment[

Theme 2: Road Safety
Design a product or system that will **increase road user awareness** and help reduce or prevent accidents on our roads;

Theme 3: Sporting Performance
Identify a sport of your interest and design a product or system that **will help to encourage sporting performance** for the participant's) of that sport.

Suggested Systems Design (10) page portfolio Layout

1) Understanding of the Design Opportunity and detailed specification;

2) Research / Analysis appropriate to the system/s; **(page 29)**

3-5) Concept sketches / showing two systems designs and suggested housing designs - circuit - systems diagrams

6-7) Development of the proposed system showing detailed understanding including modifications and development of housing;

8-9) ***Evidence of clear understanding of how the system/s work including sketches, modelling - breadboards, pcb mask, hard models, virtual models 2D/3D, etc.***

10) Evaluation and suggested modifications.

Suggested Product Design (10) page portfolio Layout

1) Understanding of the Design Opportunity and detailed specification;

2) Research / Analysis;

3-5) Concept sketches (three proposed ideas);

6-7) Development of the proposed idea/s including fabrication details;

8-9) Working drawing/s showing most of the assembly details for manufacture

10) Evaluation and suggested modifications.

Assessment Criteria & Mark Bands

Use the **Mark Descriptors** in **Appendix 2 & 3** to:-

1) Assess each element of the exemplar portfolios either System or Product Design; Greater clarity and guidance is provided in pages (30-34).
2) Record your reasons for the allocation of marks.

Appendix 2: Mark Descriptors pages 52-53

Appendix 3: Mark Descriptors pages 47-49

NB: Refer to pages 30-34 for more precise indicators.

Learning Outcomes:- page 30

Mark Indicators:- 'Systems Design page 31-32

Mark Indicators:- Product Design page 32-34

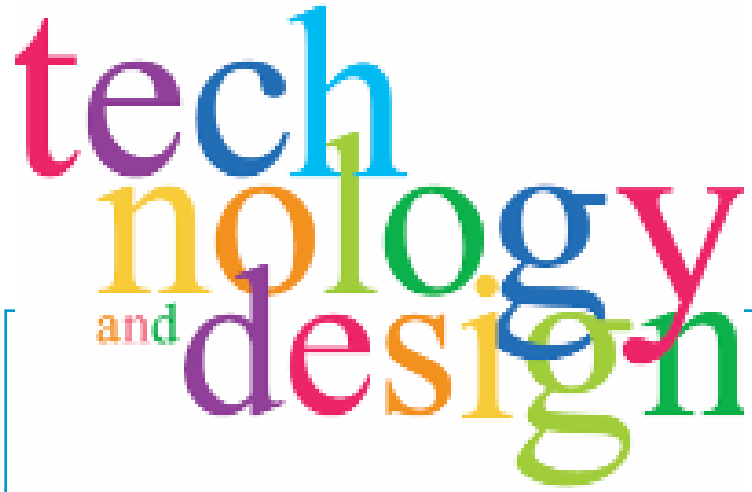
Unit 5: Manufacturing: High Mark Band

15 hours Manufacturing Time - Project:

- The product / system should be of the complexity expected at this Key Stage; KS4
- Precision and accuracy and attention to detail should be clearly evident;
- Quality of finish should be high.

NB: The assessment of the project should be based on holistic marking, given the subjective nature of this type of work. Page 50.

GCSE Agreement Trial October 2012.



Product Design Projects

Product Design: …..Theme?

Exemplar ‘A’

15

Product Design: Literacy Theme

20

Exemplar ‘B’

‘Busy Bee’

Product Design: Numeracy Theme

20

Product Design: Educational Toy

20

Product Design: Literacy Theme

20

Product Design: Literacy Theme

20

Product Design: Literacy Theme

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Product Design: Educational Toy

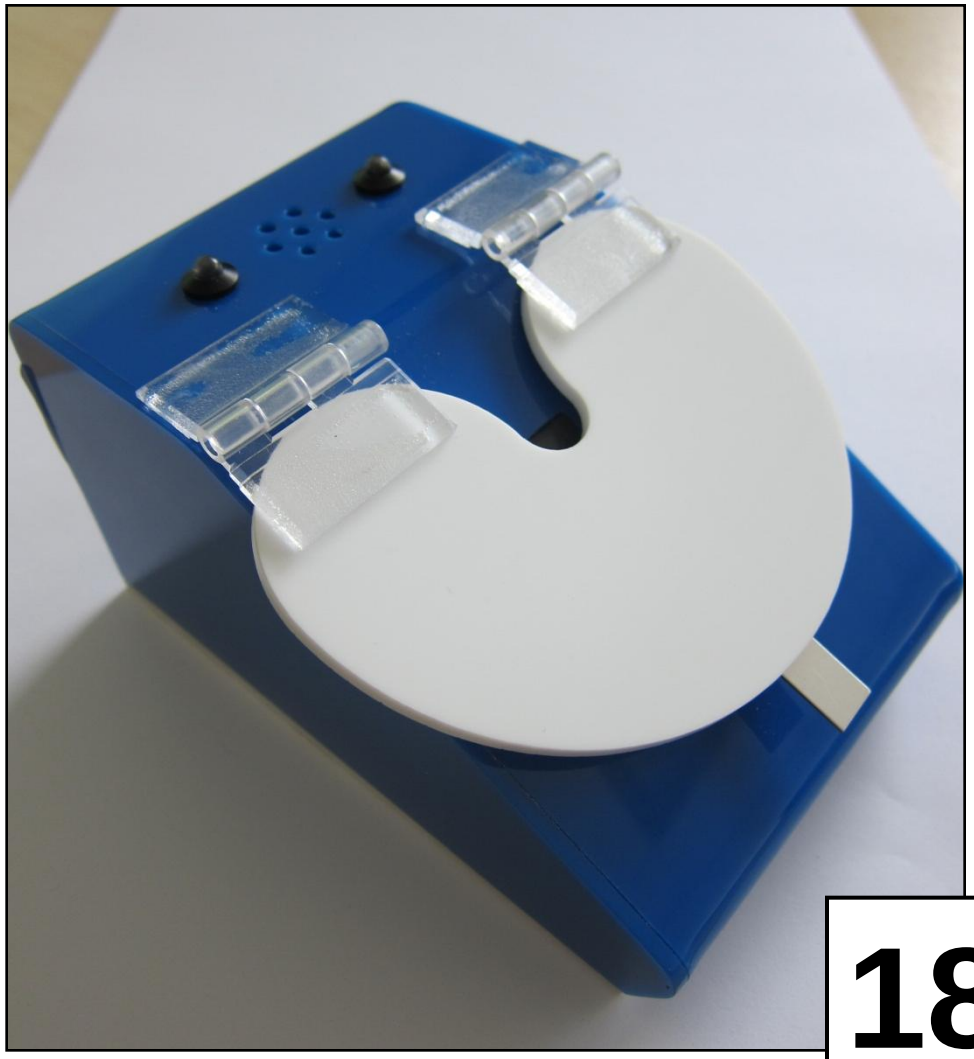
20

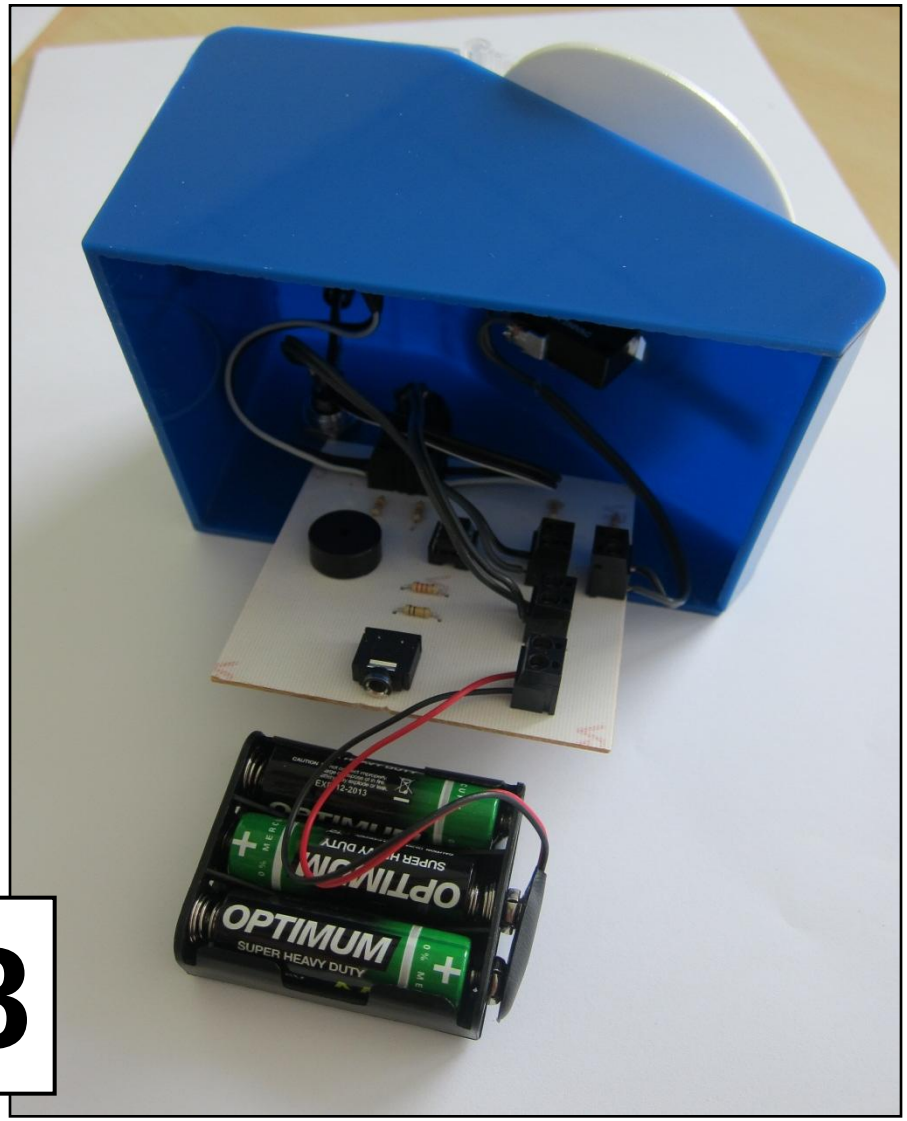
Rewarding Learning

technology and design

System Design Projects

Systems Design: Press-Up Counter

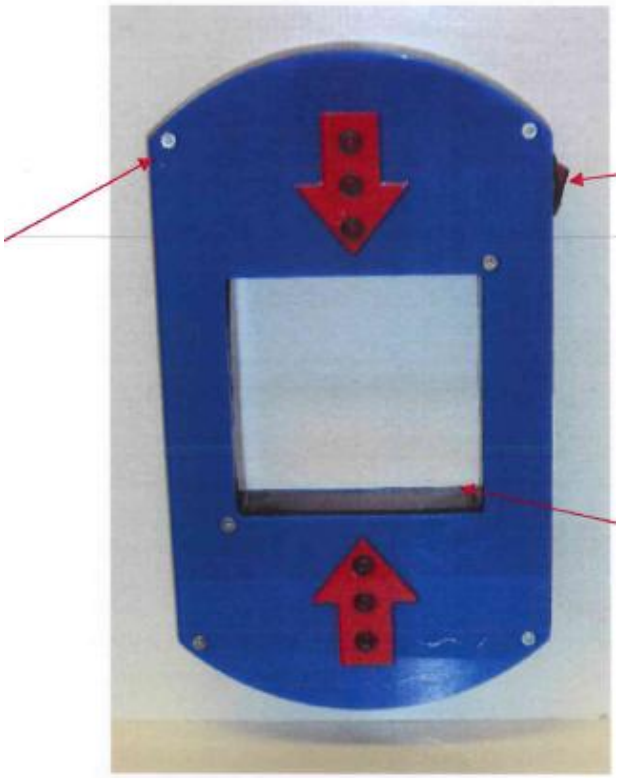




Systems Design: Press-Up Counter

20

Systems Design: Turn-Off Lights



19

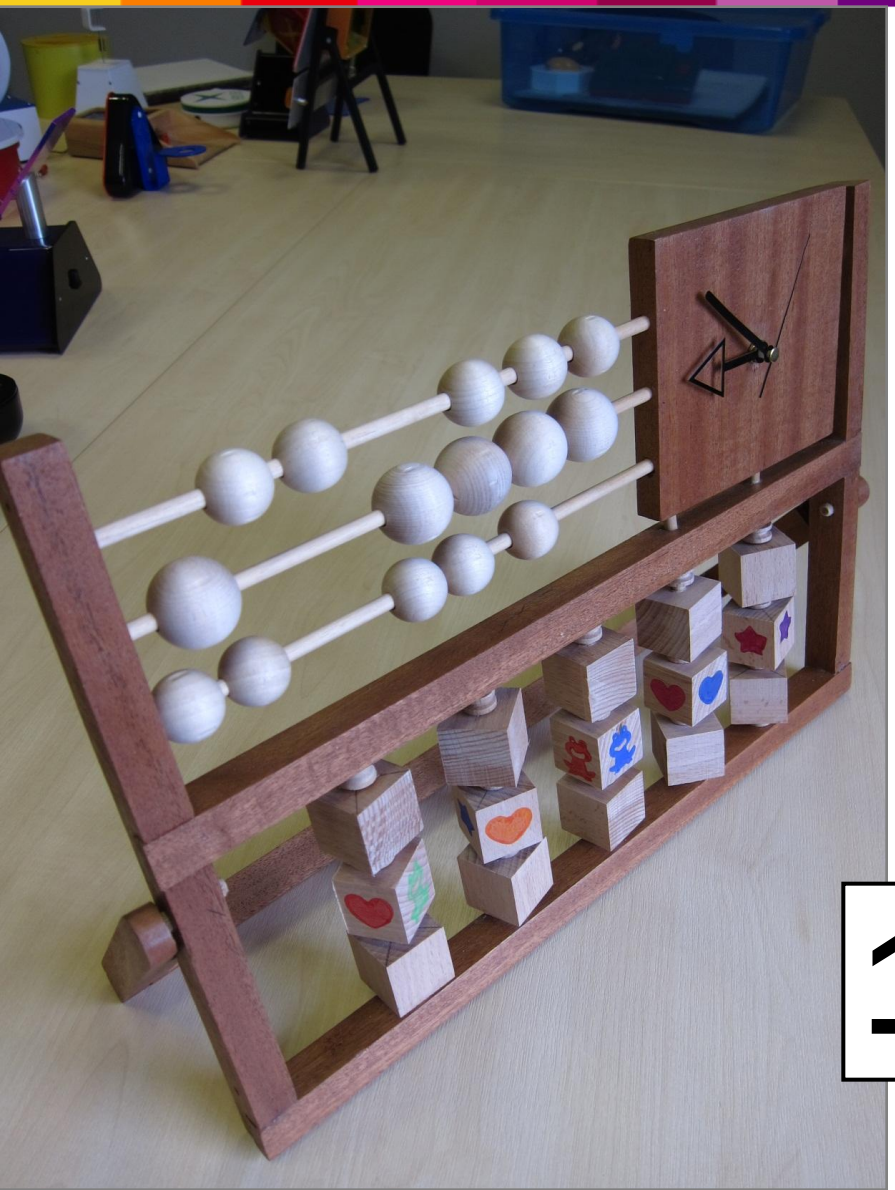
NB: Care should be taken if making displays, formers, templates as all manufacturing work presented will be assessed for quality, precision and finish.

Product Design:

Product Design:

Product Design:

Product Design:



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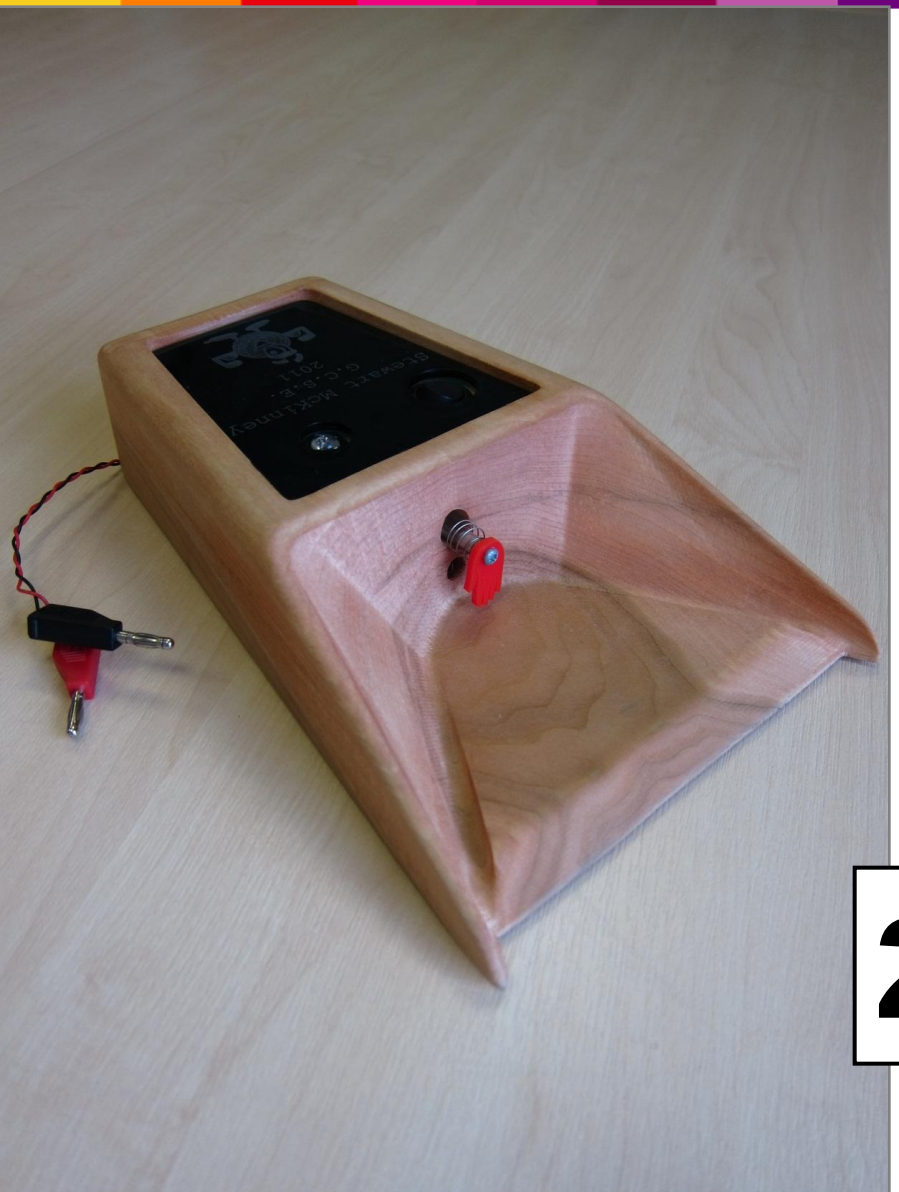
Product Design:

16

Product Design:

12

Systems Design:



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Systems Design:

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Systems Design:

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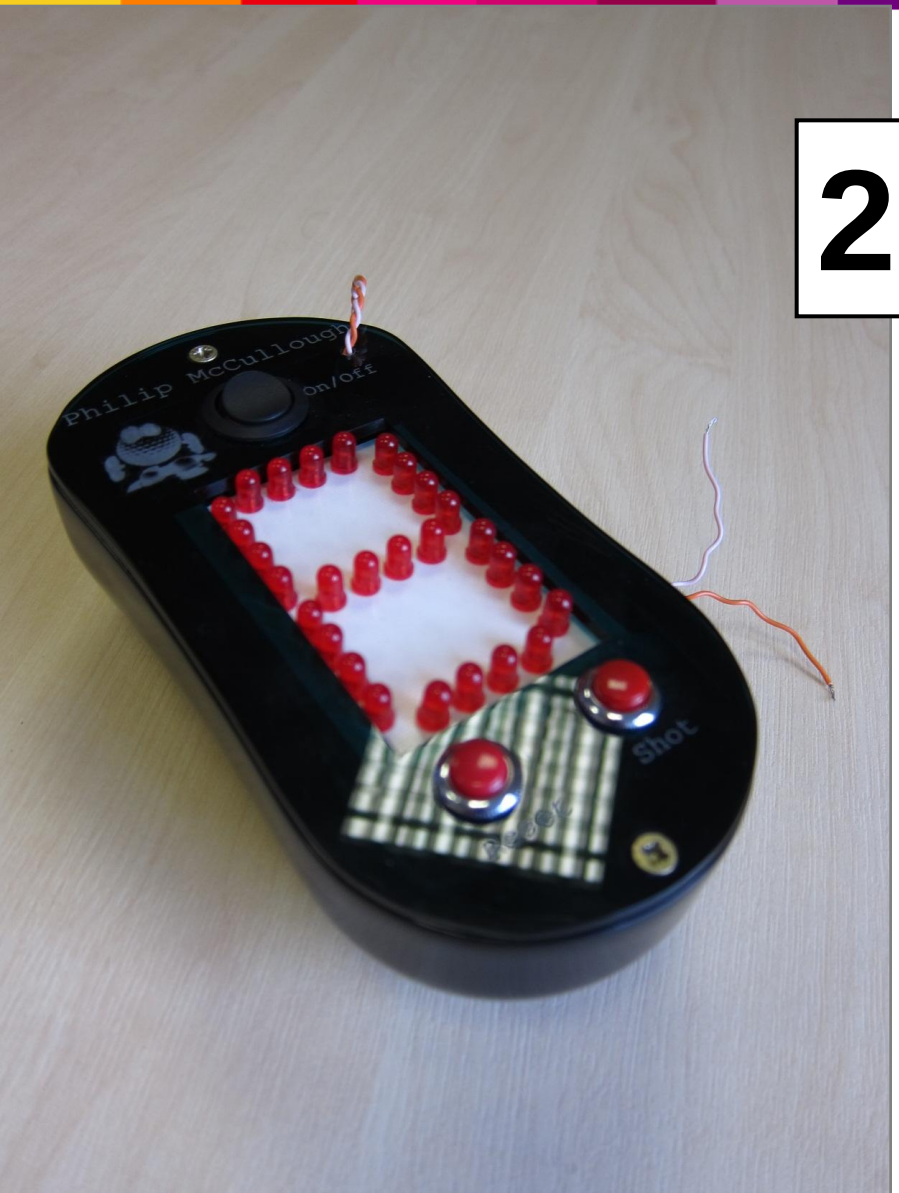
Systems Design:



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Systems Design:

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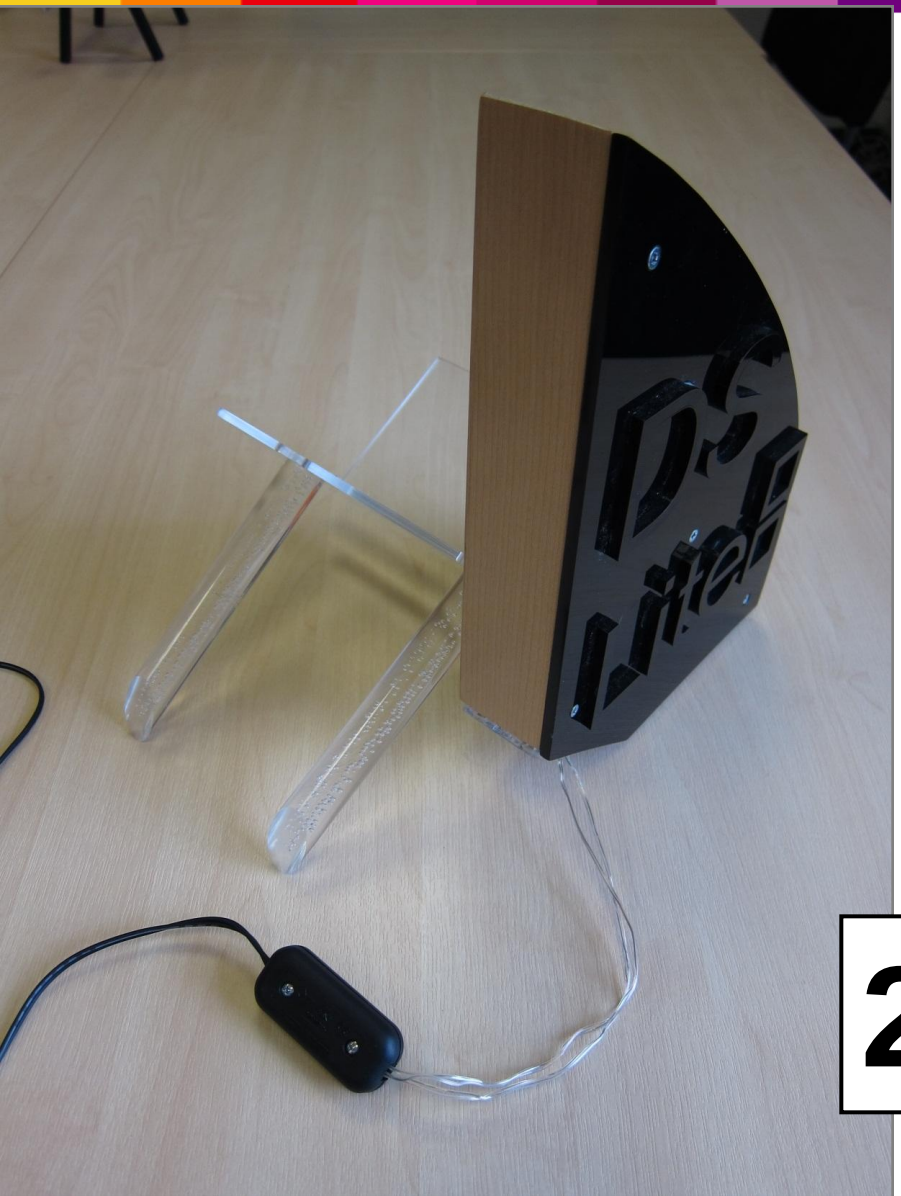
Product Design:



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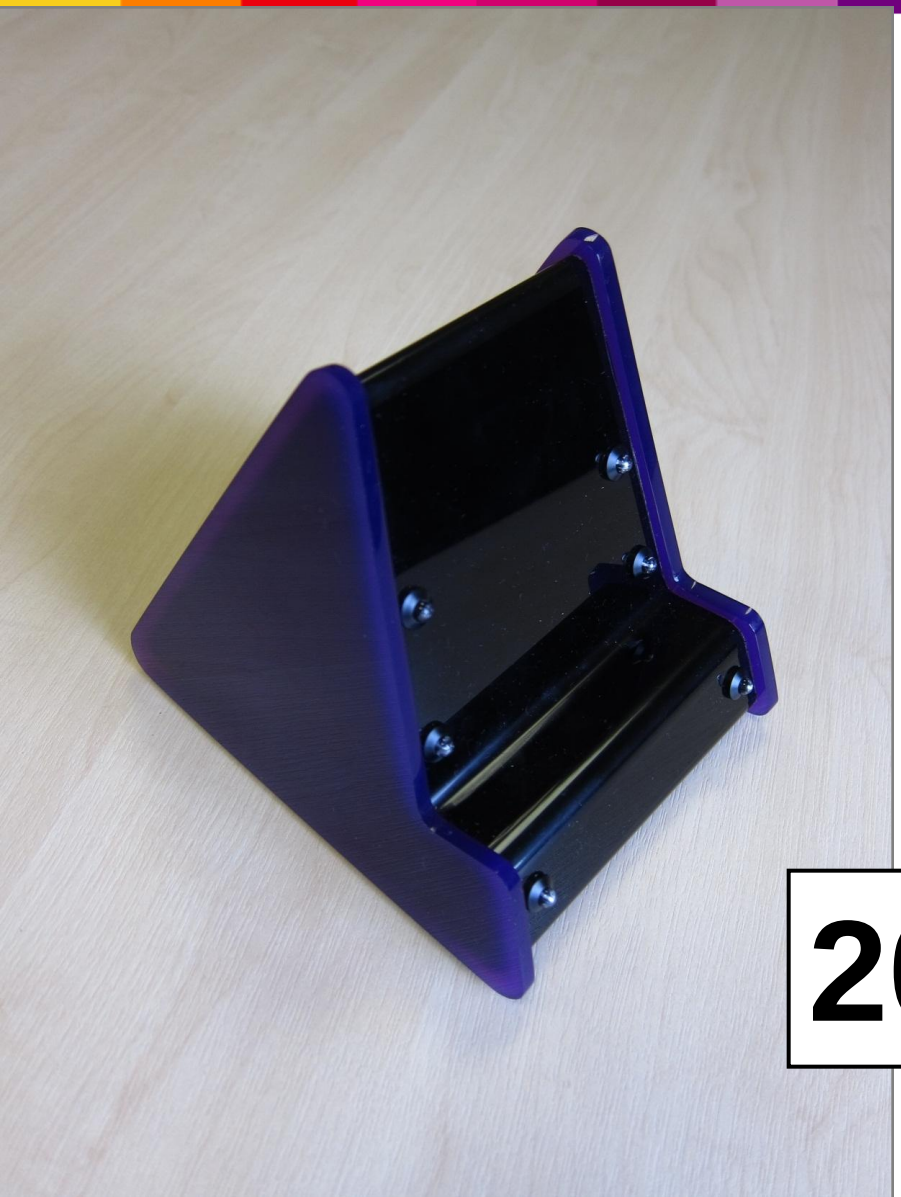

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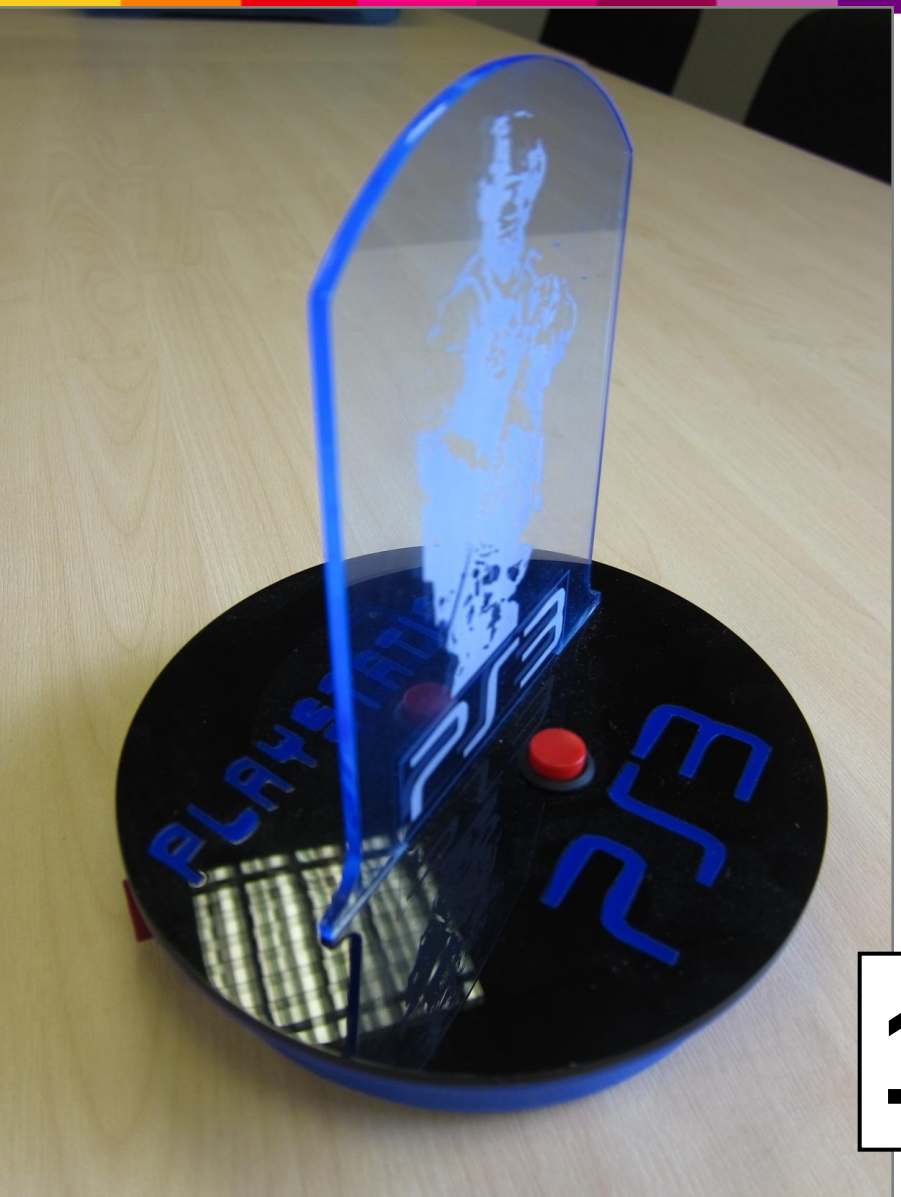

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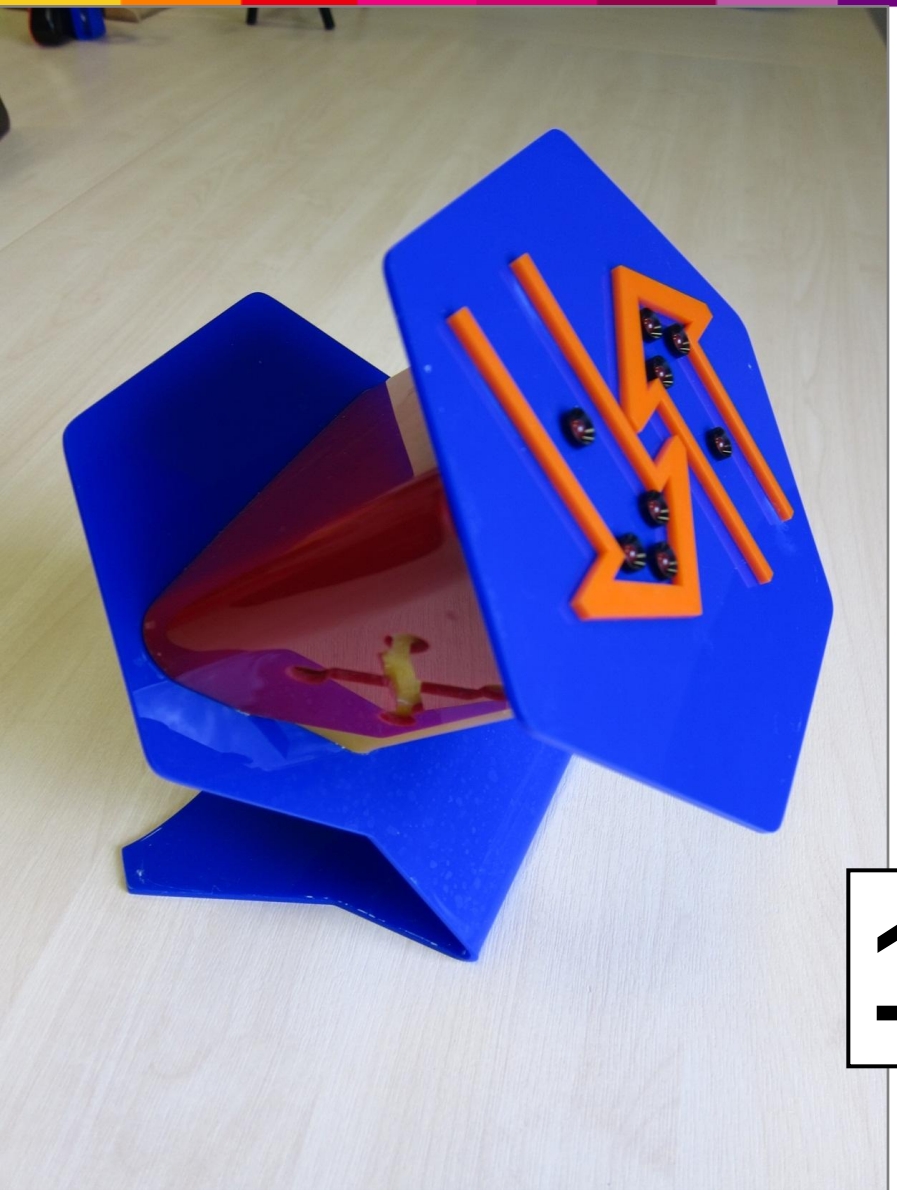
Systems Design:



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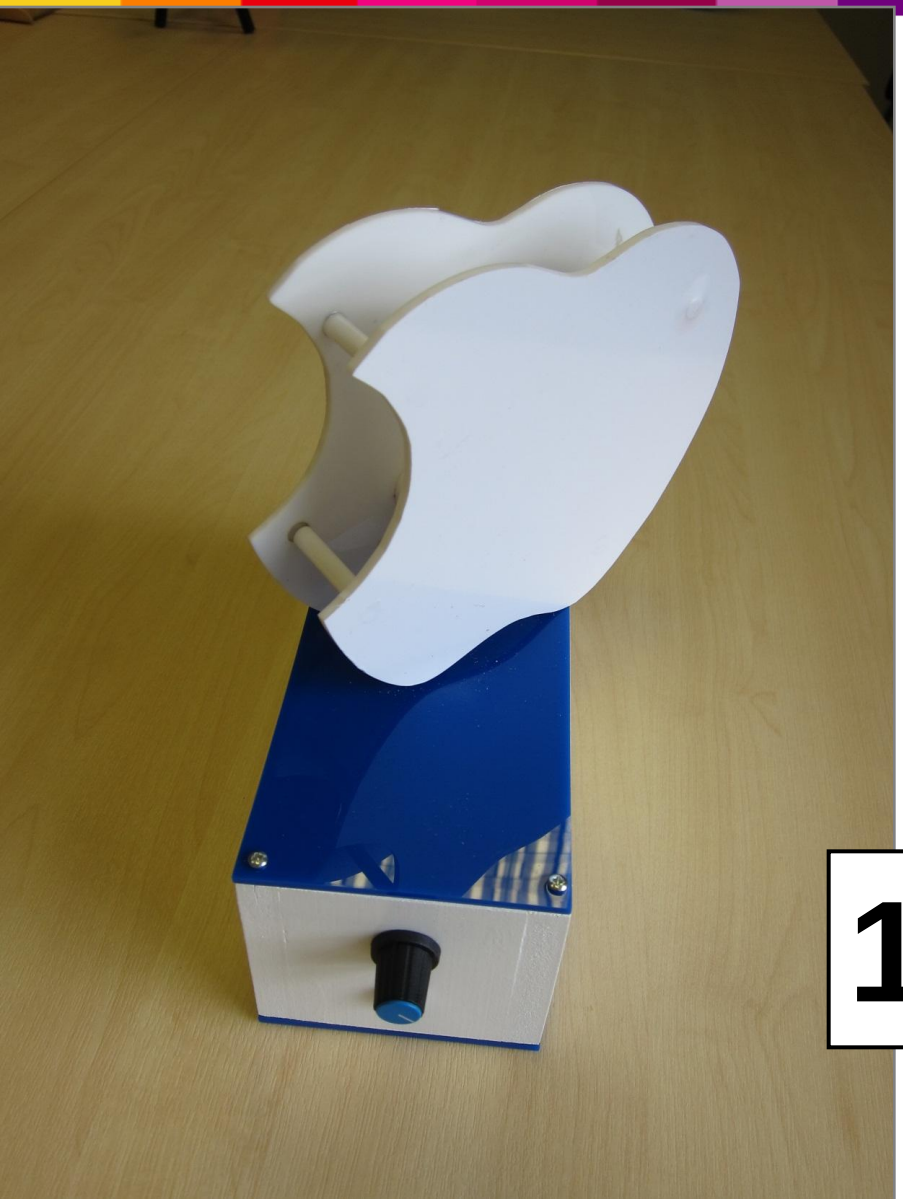
Systems Design:



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Systems Design:

15

Micro Site.

Technology and Design Home

› GCE

› GCSE

Specification

Examinations

Controlled Assessment

» CA Live Tasks

Support Materials

FAQs

› Entry Level

Examining with CCEA

News and Events

Useful Links

Contact us

Support Materials

A wide range of support is available to assist teachers delivering our GCSE in Technology and Design. Teachers and students can make use of the following documents:

- specimen papers and mark schemes;
- the GCSE Technology and Design Specification; and
- controlled assessment tasks.

We run support seminars and agreement trials at various times throughout the year, and we can also arrange centre support visits. Please **contact us** for more information.

Let us know what other support materials you would find useful. Complete our **online comment form** and tell us what we can do for you!

We intend to expand our range of support to include the following:

- past papers and mark schemes;
- Chief Examiner's reports;
- Principal Moderator's reports;
- schemes of work;
- support events;
- agreement trials;
- student guides;
- controlled assessment guidance for teachers; and
- exemplification of standards.

Useful Downloads

- **GCE/GCSE Technology and Design Key Coursework Moderation Dates 2009** *(DOC)*
- **GCSE Technology & Design Launch Event November 2008** *(PPT)*
- **Scheme of Work** *(PDF)*
- **Scheme of Work (Word Version)** *(DOC)*
- **Specimen Assessment Material** *(PDF)*
- **Student Guide** *(PDF)*
- **Subject Snapshots** *(PDF)*
- **Symbols** *(PDF)*

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