



Co-op Academy  
Stoke-on-Trent

# Year 9 Option Workbook 2026

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Booklet:

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9Y5

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Co-op Academy  
Stoke-on-Trent

Dear Students and Parents/Carers,

This booklet has been designed to support Year 9 students and their families as you begin the important process of choosing GCSE options. The decisions made at this stage will shape the subjects studied over the next two years and play a key role in each student's learning experience and future opportunities.

Inside this booklet you will find an overview of the subjects available at GCSE, along with examples of students' work. These examples are included to give a realistic picture of what GCSE study looks like in each subject – the level of challenge, the types of skills developed, and the standard of work students will be working towards. Our aim is to help students make informed choices by clearly showing what can be expected beyond Key Stage 3.

Choosing the right options is important. Students are more likely to succeed and enjoy their studies when they select subjects that match their interests, strengths, and future aspirations. While some subjects may be required or strongly recommended, Options are an opportunity for students to personalise and take ownership of their learning.

We encourage students and parents to read this booklet carefully, discuss the subjects together, and consider not only current enjoyment but also long-term goals. Teachers are available to offer guidance and answer any questions, and we strongly recommend making use of this support before final decisions are made.

We look forward to supporting students as they take this exciting next step in their education.

Yours sincerely,

Miss Evans  
*Head of Year 9*

# Subjects

Art & Design

Business Studies

Computer Science

Design & Technology

Engineering

Food and Cookery

Geography

Health & Social Care

History

Home Cooking

IT

Music

Performing Arts

RE

Spanish

Sport

# Art & Design

## GCSE Art and Design FINE ART

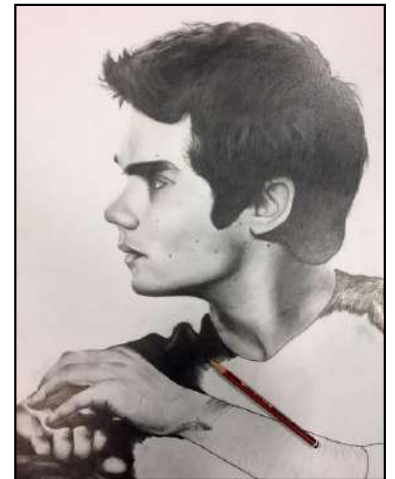
Art & Design is suitable for a wide variety of students. Including gifted artists who wish to pursue a career in creative industries, those wishing to balance academic and practical subjects and those who simply enjoy Art & Design and are willing to work hard.

**Unit 1: Portfolio of work.** Personal themed project set by student - 60% of total mark.

**Unit 2:** Externally set brief – project set by AQA - 40% of total mark.  
10 hours of sustained focused study (exam).

**This is a broad-based course exploring practical, critical and contextual work through a range of 2D and/or 3D processes and media.**

GCSE Art and Design (Fine Art) gives you the skills and knowledge to create personal and imaginative work. You can choose to focus on a specialist area of study from a variety of exciting processes and media to suit your individual interests and abilities. This can result in A-level/degree opportunities and careers ranging from painting portraits to producing exotic fashion costumes or designing futuristic architecture. If you have an adventurous, creative and enquiring mind and are excited by shaping and determining the visual world around us, there is a career opportunity waiting for you.



Drawing produced by year 10 student.

### Further study and career opportunities:

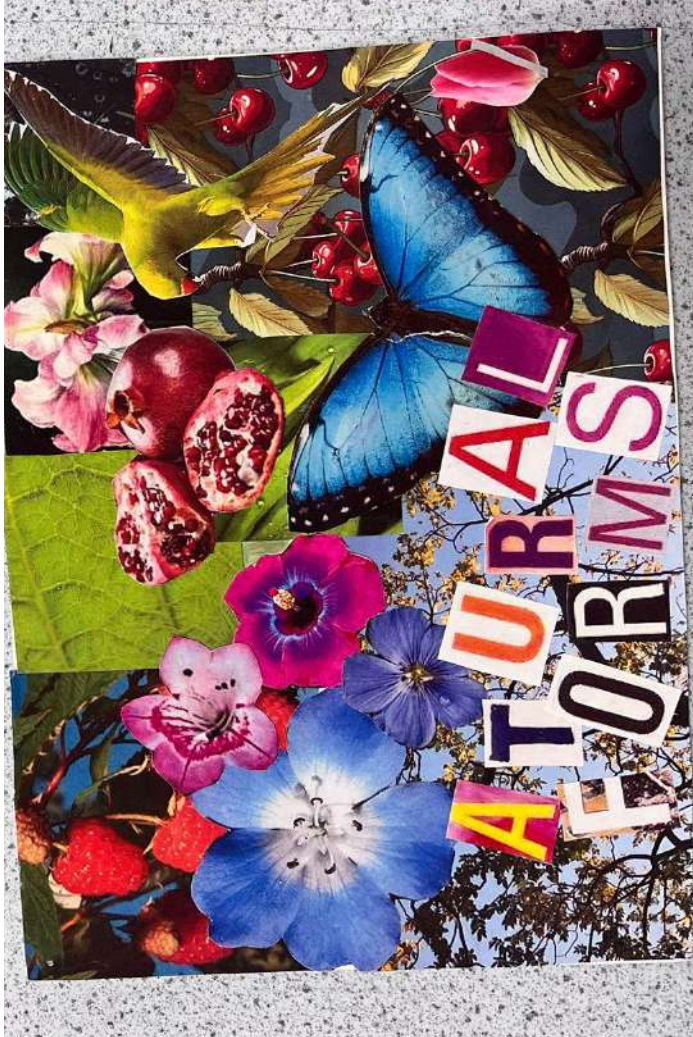
Art & Design GCSE provides the perfect spring board for students to progress to A-Level and University.

### Future Prospects/Career Options:

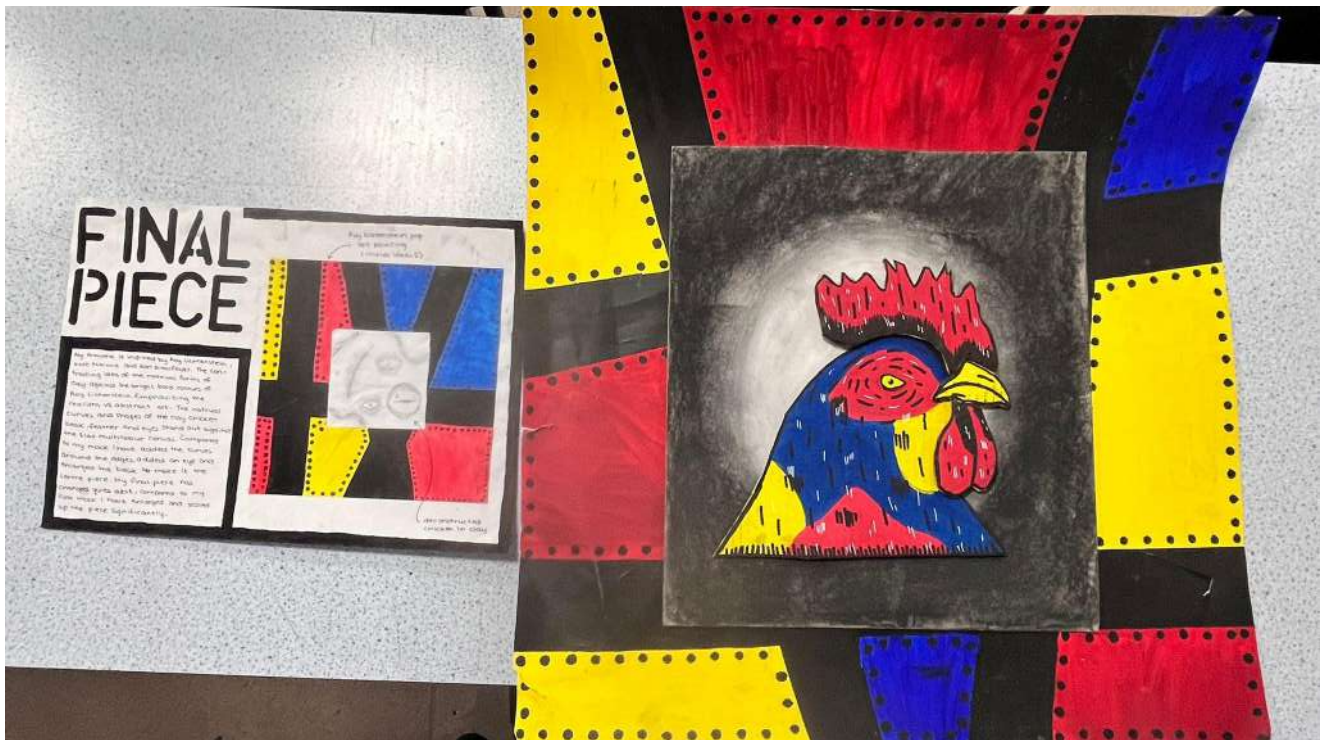
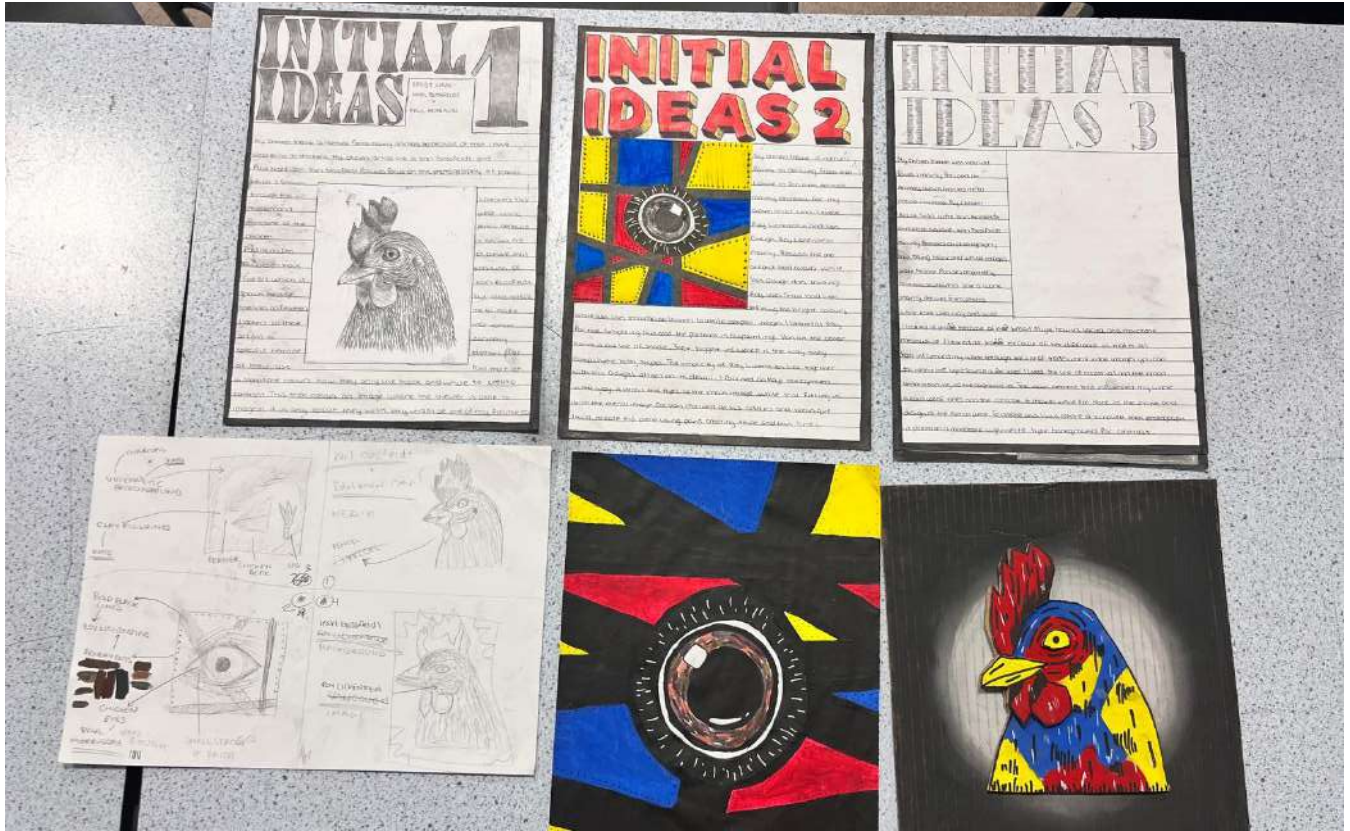
The creative industries in the U.K are rapidly growing. They contribute £92 billion to the economy and employ over 3 million people. People with creative skills are highly valued in a rapidly changing world of

- Animator
- Architect
- Art Therapist
- Blacksmith
- Ceramics
- Cartoon/Comic art
- Community arts
- of special-isms but it is cc
- Costume design
- Exhibition design
- Fashion design
- Film director
- Fine artist
- Furniture design
- Game design
- Graphic design
- Illustrator
- Interior design
- Jewellery design
- Make up/Hair design
- Medical illustrator
- Photographer
- Product design
- Sculptor
- Set designer
- Tattoo artist
- Teacher
- Theatre design
- Web design

# Art & Design Grade 4



# Art & Design Grade 4





# Business Studies

## Grade 1-3

In order to increase the number of new members at PFC, the owner is considering two options:

**Option 1:** reducing the price of membership

**Option 2:** providing an individual fitness plan for all new members.

(d) Justify which **one** of these two options would have the bigger impact on new membership at PFC.

I think they should reduce the <sup>price</sup> ~~price~~ of a ~~month~~ membership because the people who go to the other gym go there because of their low ~~low~~ price.

Be Reduce price ⊕ attract customers from other gym  
⊖ make less to pay for expensive kit  
Fitness plan ⊕ attract novice members / 50+  
⊖ Time consuming / expensive

positive of my choice  
negative of my choice

AJIM - why did I choose it?

DO NOT WRITE IN THIS AREA

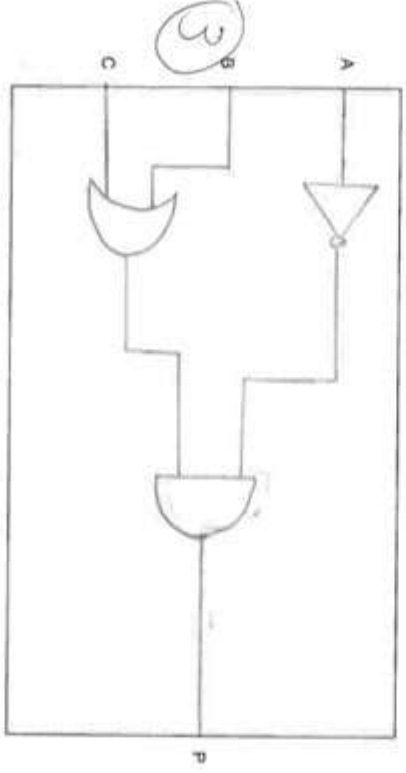
DO NOT WRITE IN THIS AREA

# Computer Science

5 (a) Complete the truth table for  $P = (A \text{ AND } B) \text{ OR } C$

A	B	C	P
0	0	0	0
0	0	1	1
0	1	0	0
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	1
1	1	1	1

(b) Draw a logic circuit for  $P = \text{NOT } A \text{ AND } (B \text{ OR } C)$



[3]

score: 3

7

Turn over

3 A computer has an operating system and utility software.

(a) The table contains operating system functions and a task that each function performs. Complete the table by writing the two missing function names and a task performed by the two given functions.

Function	Task
File <del>copy</del> Disk	Moves data from secondary storage to RAM
Peripheral management	Allows the user to create, name and delete folders
User interface	

(b) Complete the description of utility system software using the words provided in the box. Not all words are used.

access	amount	apart	compression	consecutive
defragmentation	<del>deleted</del>	encryption	key	lock
quarterly	separate	<del>sorted</del>	understood	

~~amount~~ encryption software changes data using a lock key.  
 the changed data is intercepted, it cannot be deleted. This software does not stop the data from being intercepted.  
~~amount~~ amount software analyses the data on a disk to find files that have been split and stored in separate locations. The split files are moved to be access in storage and the free space is moved together. This does not provide more storage space on the disk. speed of the data faster because the read head does not have to move as far to access the next part of the file.

[6]

score: 6

# Design & Technology

## Grade 4

					<b>Total</b>	
<b>Explore</b>	<b>Design Thinking</b>	<b>Design Communication</b>	<b>Final Prototype</b>	<b>Evaluate</b>	<b>/100</b>	<b>Grade</b>
<b>9</b>	<b>10</b>	<b>9</b>	<b>10</b>	<b>12</b>	<b>50</b>	<b>4</b>

### Context Analysis

**Evaluation of Page**  
This page helped me decide which path to choose for my product and what problems it would solve and to create solutions for problems that may occur more in the future.

### Context Investigation/ Initial Research

**Reducing household budget design problems shortlist:**

1. reuse water for plants
2. saving waste
3. saving food
4. recycling
5. separated bin
6. air powered fan
7. compost bin
8. solar powered battery
9. self powered fan

**The Self-Generator Can Spin with the Power of its Prior Mechanical Energy**

**Evaluation of Page**  
This helped me decide where I wanted to focus for my product and where to have my starting ideas of what I would like to create.

### Potential Stakeholders & Design Brief

**Design brief**  
My product aims to create a sustainable, efficient way to cut down on household budget and help people get more out of what they pay for. This product will help people budget and save money on electricity and buying multiple low quality items rather than buy 1 good quality item that will last them a long time.

**primary user:**  
Silviu ursu (lives in sticks-on-tent, like outdoor activities, likes hiking and exploring new places, like taking pictures and videos of new places on his phone. Depends on a rechargeable normal power bank with low capacity to keep his phone charged throughout his day.)

**Possible stakeholders:**

- Hiking equipment shops, like: GO Outdoors or alpinetrek
- Utility shops
- Investors
- Electronic stores who want to open their market to new products
- Holiday supply shops
- Generic public
- People who work

**Evaluation of Page**  
This helped me understand the problems and the people that have those problems and how I can help resolve them.

### Primary User Needs/ Client Interview

The primary user would be my friend who likes to go out a lot, the only problem he has is that he forgets to charge his phone when he goes out so he is mostly on low battery. He has given me a list to refer to what designing and making my product this list would help him and others in their daily life.

N1	N2	N3	N4	N5	N6	N7	N8	N9	N9	N10	TOTAL

**Checklist:**

1. can be strapped on to any backpack
2. not too heavy
3. not too bulky
4. must be waterproof incase there is rain
5. must be rechargeable by usb in case there is no sun so it can still be used as a power bank
6. built in cables so it can be used anytime or if forgot own cable
7. built in adapters so different household prices can be charged
8. flash light in case of emergencies
9. pop-up stand so it can charge in a window or on a table
10. expandable so it can get more energy and charge faster

**Evaluation of Page**  
This page gave me a main base on the requirements to develop my product and what factors I should focus on.

### Stakeholder/ Product Requirements

I created this survey to get opinions and views of solar power banks from people to get a rough idea on what people look for in power banks.

**View on solar power banks:**

- Do you wear a bag when you go out?
  - Yes
  - No
  - Sometimes
- How often do you run out of battery on your devices when you go out?
  - Often
  - Not often
  - Other
- Do you go out when it rains?
  - Sometimes
  - Often
  - No
  - Other
- How often do you seek the need of a powerbank?
  - Sometimes
  - Often
  - Never
  - Other
- How often do you lose accessories for charging devices?
  - Sometimes
  - Often
  - Never
  - Other
- What things do you want a solar power bank to have?
 

Answer: \_\_\_\_\_

**results: 75% of people who did the survey said they go out with a bag**

As a result of these, it's clear that there are a few areas where my design can be improved to better meet the expectations. I will focus on ensuring the design aligns more closely with the preferences. Additionally, I plan to make changes to enhance the overall user experience. The input is invaluable, and I'm excited to make these adjustments to better suit these needs.

50% said their phone normally dies when they go out, 43% go out in the rain, 59% need a power bank and 70% lose their wires/cables.

**Evaluation of Page**  
This helped me understand my customer base better as it helps me understand what customers are looking for and how it will affect their lives.

### Investigations of Existing Products

This helps me understand better on how I need to make my battery pack and what it needs to consist.

**Advantages:** Battery lasts long, Recharges over time as sun recharges the solar panels.

**Disadvantages:** Needs to unscrew the whole back to replace battery.

**Advantages:** Cheaper for light.

**Disadvantages:** Not reliable, Expensive to install, No sun, dim light which makes it not safe.

**Advantages:** Can't harm power when charging.

**Disadvantages:** Very expensive, Hard to store, Bad weather means no power.

**Advantages:** Portable power, Service power, Wireless so can move it anywhere.

**Disadvantages:** Very expensive for a rechargeable keyboard, Most likely used in a dark room so no solar power.

**Advantages:** Power saving, Light or gesture.

**Disadvantages:** Won't last long at night, No sun means no light.

**Advantages:** Helps power house.

**Disadvantages:** Doesn't look good on a house, Relies on other power sources when there's no sun.

**Advantages:** Helps power house.

**Disadvantages:** Relies on other power sources when there's no sun.

**Advantages:** Helps power house.

**Disadvantages:** Relies on other power sources when there's no sun.

**Evaluation of Page**  
This page helped me understand the existing products which relate to my product and how they function and their uses.

# Design & Technology





## Grade 4

### Investigations of Existing Products

**Material**  
The solar powered battery pack is made up of select materials. It uses metal to have a better structure to be resistant to falls or other forms of weak damage. This helps me understand and change the materials for my product to adapt to its needs.

**Function**  
It looks very easy to use and simple as it only has a few buttons and a few inputs/outputs. The solar panel looks simple to use as setting it out in a sunny spot and waiting for it to charge. From this I can improve on the functions of my product.

**Safety**  
The product looks safe to use as it doesn't have many sharp corners rather smooth edges and has a soft and smooth touch to it. There are no visible wires other than the ones you would attach yourself and the plugs are simple and easy to use so it wouldn't be unsafe in any ways. This helps me understand and create my product with more safety.

**Size**  
The solar power bank is relatively thin and has a large surface area for sunlight to charge up the power bank. It looks easy to carry and easy to store as it does not take up that much space. This helps me understand and create my product with relative size to suit the needs of the function.

**Environment**  
The materials used look environmentally friendly as they can be recycled or reused such as the metal can be melted and reused to make something else and the solar panel can be taken out and used for a different thing and if it doesn't work it can still be repaired and reused for something else. This helps me acknowledge and change my product to be environmentally friendly.

**Customer**  
All types of customers can use this as it can be used outside or even inside by placing in a window that gets sunlight so it can be used for daily use or for events or outside activities. Understanding and adapting my product to be more suitable for customers needs and wants.

**Aesthetics**  
It is not aesthetically pleasing as it doesn't have a finish rather just the metal but the smooth look and simplistic design could make it aesthetically pleasing. Making my product more aesthetically pleasing.

**Cost**  
It looks cheap so it can be more accessible to a wider range of people with different income ranges. Able to make it in a good price range.

**Evaluation of Page**  
This helped me further understand the function of the powerbank and how I need to develop my idea.

### Materials Research & Technical Requirements

**Thermoplastics**  
Thermoplastics are a type of polymer that becomes soft and moldable when heated, allowing them to be shaped. They are also highly resistant and recyclable, which helps my product be environmentally friendly. However, thermoplastics thermal sensitive meaning they can melt or deform under high temperatures, limiting their use in high-heat environments.



**Popular uses:**

- Packaging
- Construction
- Automotive
- Electronics

**Thermosets**  
Thermosets are a type of plastic that is permanently hardened through a process called curing. This makes them more durable than thermoplastics, protecting the internal components from environmental damage. They can serve as insulating materials within the battery pack, preventing short circuits and enhancing safety. However, they can be more brittle compared to thermoplastics, which means they may crack under high stress or impact.

**Popular uses:**

- Electronics
- Automotive
- Aerospace

**Ferrous metals**  
Ferrous metals are those that include iron, like stainless steel. These metals are recognized for their high tensile strength, making them suitable for construction and structural applications, including tall skyscrapers, bridges, cabinets, and more. They help my product be more durable and suitable for the powerbank housing of my product or used to suite the customers needs to be able to take my product to most places like hiking or casual day use.



**Popular uses:**

- Building houses
- Construction
- Tools
- Pans

**Non-ferrous metals**  
Non-ferrous metals or alloys are defined as materials that are not iron-based like their ferrous counterparts. Common non-ferrous metals include copper, aluminum and lead. Ferrous metals contain iron making most of these metals have a magnetic property. Non-ferrous metals are found in the Earth as chemical compounds. They can be used in design as non-ferrous metals don't corrode or rust which is important for this product as it needs to withstand use or other weather conditions.

**Popular uses:**

- Roofing
- Outdoor signs
- Containers
- Electrical cables

**Evaluation of Page**  
This page helped me understand and evaluate the materials I could use for my product and what would be more useful for my specific product.

### Initial Ideas & Analysis

**1**  
Battery pack with built in wires. This helps me design my product as it helps me think about how I want my product to have built in wires so the customer/consumer doesn't lose their wires.

**2**  
Solar panel sheet. Helps me understand what type of solar panel I need to use for my product as it can be stored easily but also have a big surface area for more energy.

**3**  
Slower style solar panel that is functional but also looks good.

**4**  
Hexagon solar panels. Appearing shapes and sizes for solar panels that customers/consumers would like to have and seem like an appealing design that doesn't look bad on a bag.

**5**  
Magsafe charging. This helps me understand the different devices I could make my product accessible for.

**6**  
Curved solar panel that reflects sunlight onto itself helps me imagine an idea where it utilizes as much sunlight as it can.

**7**  
Roll up solar panel. The idea of rolling up helps me understand how I want my product to utilize that idea and how I want to make my product usable in many ways.

**8**  
Roll out solar panel that attaches on the back of a bag. This helps me further understand and be able to visual how usable and portable I want my product to be.

**Evaluation of Page**  
These pages helped me expand my view on how my product may look and how I may decide to mix some idea together to create a final idea.

### Initial Ideas & Analysis

**9**  
Petal shape solar panel. This helps me think about how I want my product to be more compact and easy to carry, it is also more aesthetically pleasing to look at as it's in the shape of nature.

**10**  
Circular solar panel that attaches to a bag, doesn't look aesthetically pleasing but has a large surface area to attract more solar energy. Could be unattached from bag and used at different places such as in a garden or on a wall.

**11**  
Hand held battery pack with a solar panel, aesthetically appealing but not as useful as hand is constantly moving so it can't catch as much solar energy.

**12**  
Handheld power bank with a solar panel with tools for emergencies, useful in certain situations but means there is less battery capacity as the tools take up more space.

### Analysis of initial ideas

idea	description	Feedback from stakeholder	Sustainable	score
1	Power bank with built in wires	<ul style="list-style-type: none"> <li>• It's convenient to have built in wires</li> <li>• Looks small</li> </ul>	Suitable as it already has wires and customers don't need their own but can still attach their own	6/10
2	Flower solar panel	<ul style="list-style-type: none"> <li>• Looks good outside</li> <li>• Looks modern</li> </ul>	Suitable as it has large surface area, also useful when hiking	7/10
3	Flexible solar panel	<ul style="list-style-type: none"> <li>• More surface area</li> <li>• Easier to store</li> </ul>	Suitable as it can fit anywhere and can be used at multiple spaces	7.5/10
4	Hexagon solar panels	<ul style="list-style-type: none"> <li>• Aesthetically appealing</li> <li>• Hard to store</li> </ul>	Aesthetically pleasing as it looks good for hikers and flexible	8/10
5	Magsafe charger	<ul style="list-style-type: none"> <li>• Magnets attached and secure</li> <li>• Only works on iPhones</li> </ul>	Not suitable as its only made for newer iPhones so users with old iPhones or other branded phones can't use it	6/10
6	Curved solar panel	<ul style="list-style-type: none"> <li>• Obnoxious as when sunny, can be constantly hitting it</li> <li>• Not aesthetically pleasing</li> </ul>	Not suitable as it needs installing and not easily movable	5/10
7	Roll up solar panel	<ul style="list-style-type: none"> <li>• Easy to store</li> <li>• Can be used nearly anywhere</li> </ul>	Suitable as its easy to store and easy to handle can also be used at multiple places	9/10
8	Powerbank with roll out solar panel to fit back of backpack	<ul style="list-style-type: none"> <li>• Perfect fit for hikers or casual day use</li> <li>• Easy to store</li> <li>• Easy to use</li> </ul>	Suitable as it fits what a hiker needs, attach it and you don't have to worry about it again as its on the back of the bag, rolls up so easy to use and easy to store	10/10
9	Power style solar panel	<ul style="list-style-type: none"> <li>• Aesthetically pleasing</li> <li>• Easy to store as it folds up</li> </ul>	Suitable as its easy to move and aesthetically pleasing. Easy to use and useful for hikers/campers	8/10
10	Circular solar panel attach to bag	<ul style="list-style-type: none"> <li>• Big surface area</li> <li>• Not aesthetically pleasing</li> </ul>	Suitable as it has a larger surface area, attracting more solar energy, doesn't look good	7.5/10
11	Handheld power bank with solar panel with dip	<ul style="list-style-type: none"> <li>• Can be clipped onto different bags and equipment</li> <li>• Constantly moving so not collecting as much power</li> </ul>	Not suitable, not very useful if its hand held but can be clipped, small surface area	4/10
12	Handheld power bank with solar panel and sliding panel to store tools	<ul style="list-style-type: none"> <li>• Ergonomic</li> <li>• Shows tools in case of emergencies</li> <li>• Constantly moving so not collecting as much power</li> </ul>	Suitable in emergencies as it has tools or other emergency needs.	8.5/10

### Initial Idea Prototype

#### Roll out solar panel power bank

This prototype helps me further understand how I would improve and change the initial uses of my final product. This prototype allows me to better understand how, a high surface area, ability to be kept compact, multi-usability and easy to use product could help people with their Finestech budget.

The multi-use product has many functions which could help avoid wasting money on cheaper alternatives that are also lower in quality and functionality. This product seems to be used in various different occasions, the roll-out solar panel helps it stay compact, this solar panels are easy to use as after rolling it, the product could be clipped, hung or even laid out at any location with direct sunlight. Large surface area also helps it preserve and collect more energy.

**Easy to use, compact**

**Large surface area**

I conducted research on how petal shaped solar panels can fit together and for a useful and aesthetically pleasing product. This further helps me to open my ideas in making my initial, final product aesthetically pleasing but also not losing any functionality along the way I seek to embrace this idea to further help me understand the importance of making the final product compact and easy to use.

**Petal shaped solar panels**

**Compact, easy to use, aesthetically pleasing**

I explored how hexagons fit together perfectly without gaps because their internal angles are 120 degrees, allowing them to tile the planes in a honeycomb pattern. This natural arrangement is both efficient and commonly found in nature and design.

**Hexagon solar panels**



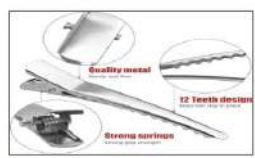
**Evaluation of Page**  
This helped me understand how shapes fit together and how I can develop my idea to involve shapes which could be more aesthetically pleasing.

**Aesthetically pleasing, large surface area**


# Design & Technology

## Grade 4


### Initial Idea Improvements

This idea helps me understand and develop my idea to be able to clip onto most things and the idea of how the clip works helps me understand further how I want to improve the design process and utilise the mechanism for my product to be able to attach to most things such as bags or the outside of a tent.

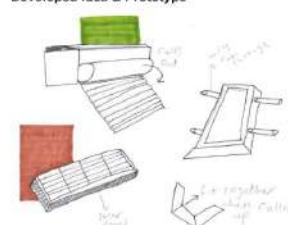




The strap buttons help me understand how I can utilise this for my product and using it will be helpful as it is strong enough to hold the rolled up solar panels and durable and resistant to weather and harsh movements as they can be dropped or bumped into something and they will still hold together making them a good choice for my product. This also makes my product simple and easy to use as it only requires the user to roll up the solar panel sheet and clip the buttons together.




Evaluation of Page  
This helps me further understand and explore different designs and working mechanisms into my product to make the use of it easier and quicker.


### Developed Idea & Prototype


The idea of all the solar panel blocks to connect together helps me understand how I want my product to utilise the idea as it is aesthetically pleasing and looks modern compared to just a rolling solar panel sheet. It is also cheaper to make. All the pieces would fit in together and be easier to roll out and clip back together as it could use magnets to hold together.



The hexagonal design helps me understand how the shapes fit together and how to make my product more aesthetically pleasing for customers.



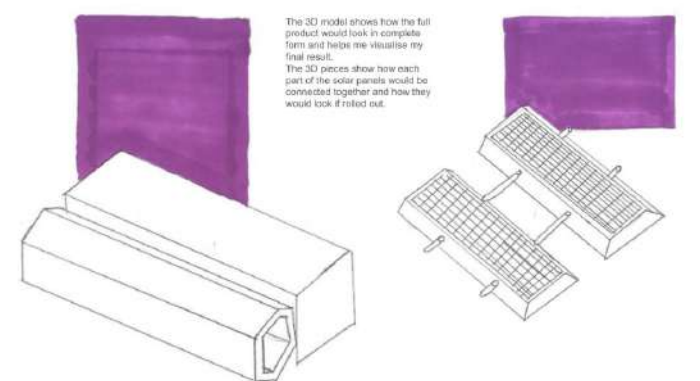
Bamboo roller for sushi helps me visual and improve my design as it rolls out as one big sheet that is easy to store and aesthetically pleasing to look at being used. It is also easy to use as it requires no effort to roll out and roll in.



Evaluation of Page  
This helps me understand how I can merge existing ideas to make a new idea which is aesthetically pleasing and is very functional and easy to use.

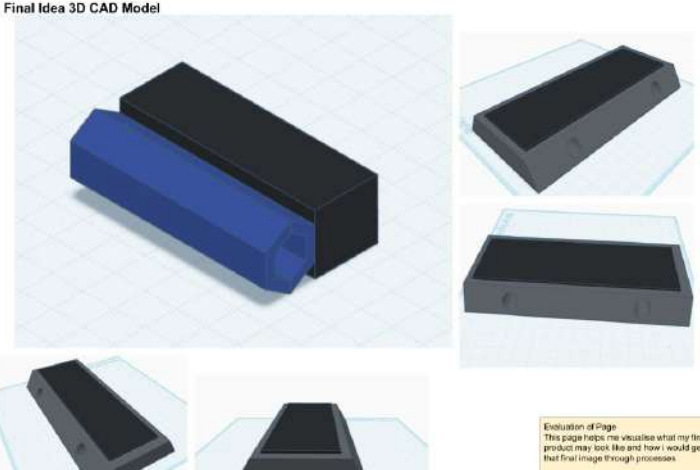
### Final Idea

## SOLAR ROLLER



The 3D model shows how the full product would look in complete form and helps me visualise my final result. The 3D pieces show how each part of the solar panels would be connected together and how they would look if rolled out.

### Final Idea 3D CAD Model



Evaluation of Page  
This page helps me visualise what my final product may look like and how I would get to that final image through processes.

### Technical Specification

Outer Components			
Part	Material	Finish	Notes
Main base	MDF	Waterproof Glossy Black	moulded
Solar panel frame	MDF	Waterproof Glossy Black	moulded
Solar panel	Monocrystalline silicon	N/A	These would be glued to the frame

Inner Components			
Part	Material	Finish	Notes
Wiring	copper	N/A	These would go through all the solar panels and into the battery
Lithium Ion Batteries	LiPoium	N/A	These would be inside the main base



### Final Prototype Manufacturing Plan

Process	Equipment	Time	Notes
Design template for the pieces of the main body on 2D design	Computer to make the measurements and design the template for the roll	20 mins	Make sure to make the right measurements for the thickness of roll
Use the laser cutter to cut out the 2D design on a piece of MDF board	Laser cutter to cut out the pieces of roll	5 mins	
Mark out where the holes should be for the wires, repeat for every side piece	Pencil, steel rule, to square to mark out where the holes should be	5 mins	Make sure the measurements are all the same for every piece
Drill holes in the side pieces of the roll for the wires	Pillar drill to make the holes in the pieces	5 mins	Make sure to drill exactly on the markings to make sure all pieces are the same
Sand down the holes to get a smooth surface	Sanding paper as well sandpaper wouldn't be safe for this process	15 mins	
Use some wood glue or HMA to stick the components together	Wood glue/hot glue gun	15 mins	Hold the pieces together whilst drying
Stick lithium ion battery into the main body	HMA hot glue gun	5 mins	Make sure to securely glue it so it doesn't move
Attach all the wires to the lithium ion battery by soldering	Soldering iron and solder	15 mins	Make sure to attach all the wires to the correct parts
Attach wires to all the solar panels	Soldering iron and solder	20 mins	Use same length of wire between every solar panel
Tape up open parts ready for painting	Masking tape over wires	5 mins	Tape more than 1 layer so the paint doesn't bleed onto the wires
Spray paint primer let dry and spray again	Primer and mask	20 mins	Do an even coat all around
Spray paint glossy black with 2 even layers	Waterproof Glossy black spray paint and mask	30 mins	Do even coat all around making sure to not leave any light areas
Glue a strap onto the back of the base	Strap and hot glue gun	5 mins	Make sure to centre the strap

TOTAL TIME: 2 HOURS 45 MINUTES

Evaluation of Page  
This helps me realise the manufacturing process and how long it would take



# Engineering Pass

## Task 1: Materials and tools research

### Metals

**An option is stainless steel - this is because stainless steel is a strong, rust-resistant material. It is more expensive and is more difficult to work with than mild steel, which distinguishes it from ordinary steel. Stainless steel comes in a variety of grades, each with different properties. The most common is 304 stainless steel, which is a good choice for most applications. It is a good choice for most applications, and has a variety of uses which can be applied to a wide range of products.**

### Non-ferrous metals

What is a non-ferrous metal?

When a metal is defined as non-ferrous it means that it does not have a significant amount of iron in its chemical composition. Note the word "significant"; nearly all metal alloys have some trace, or non-significant, amount of iron in their composition. This does not make them ferrous alloys though. Non-ferrous alloys generally have compositions of less than one percent as measured by weight. If iron constitutes a large percentage of a metal, such as if it is the first or second most abundant element in the metal's chemical composition, then the metal is considered ferrous.

### Advantages of non-ferrous metals

- Copper is soft and malleable, allowing it to be a non-ferrous metal
- Copper is cheaper than most materials

### Mild Steel

Mild steel is a form of low-carbon content. The metal is a light grey and is used in a wide range of applications. It is a good choice for most applications, and has a variety of uses which can be applied to a wide range of products. It is a good choice for most applications, and has a variety of uses which can be applied to a wide range of products.

**Strength** Mild steel has a low yield strength (around 235-275 N/mm<sup>2</sup>) and is relatively easy to shape. **Corrosion Resistance** Mild steel has little resistance to corrosion and will rust quickly when exposed to moisture. To protect this, mild steel is often galvanized (coated in zinc), painted, or treated with a protective coating. **Weldability** Mild steel is a highly weldable metal and is compatible with many welding methods. **Machinability** Mild steel can be machined to a high degree of accuracy and is compatible with many cutting methods.

### Acrylic

Acrylic, or poly(methyl methacrylate), is a synthetic polymer, often used in the construction of many mechanical components. Acrylic is a good choice for most applications, and has a variety of uses which can be applied to a wide range of products. It is a good choice for most applications, and has a variety of uses which can be applied to a wide range of products.

- Strong and rigid
- Easy to cut and shape
- Good mechanical stability
- Good weathering

Figure 1: Spoke and table design examples



Figure 2: Base clip example

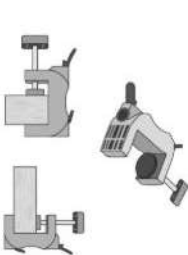
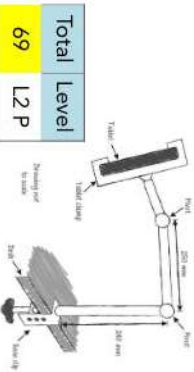


Figure 3: Reinforced design of a table holder



Here are the prices some metals:

- Copper - £3.87 - £4.27
- Stainless Steel - £3.80

I would use mild steel or galvanized steel because mild steel is very ductile and also it is very magnetic meaning it would be good for the part that would be adjustable as it would be easy to attach to the frame. I would use the acrylic for the actual phone / iPad holder because when the acrylic is heated up it is easy to bend into shape for the phone holder.

## Tools

**Modification tools**

**Hacksaw**  
I would use hacksaw to cut all pieces of the process due to its strength when used for cutting metals and other materials

**Junior hacksaw**  
Same use as the hacksaw however the junior hacksaw is mainly used to cut smaller objects rather than the bigger ones which would be cut using a normal hacksaw

**Safety**  
These both can be used safely by ensuring that the user is holding the blade at a safe angle and away from any bodies that can be harmed in the process of using them

**File**  
The file can be used to give a more smooth surface to a freshly cut metal or wood

**Wood**  
They can be used safely by ensuring that the file is pressed against the surface and then

**Marking out tools**

**Engineering square**  
Can be used to ensure that the user gets a more accurate measurement when working on their projects.

**Steel rule**  
Same use as the engineering square which allows the user to get more accurate measurements

**Centre punch**  
This allows the user to mark out the center of the material that they are working with easier.

**Safety**  
These all can be used safely by ensuring that the users hands are away from these tools when in use

**Fixing tools**

**Screws**  
Allows the user to tighten the components of their project together

**Nuts and bolts**  
Similar to screws allows the user to tighten components together giving it more security

**Spanner**  
Allows the user to tighten nuts and bolts together much easier which ensures that they are fully tightened to ensure more security

**Safety**  
Ensures that the components will no longer be loose and therefore will be safe and secure to use

**Fixing tools**

**Screws**  
Allows the user to tighten the components of their project together

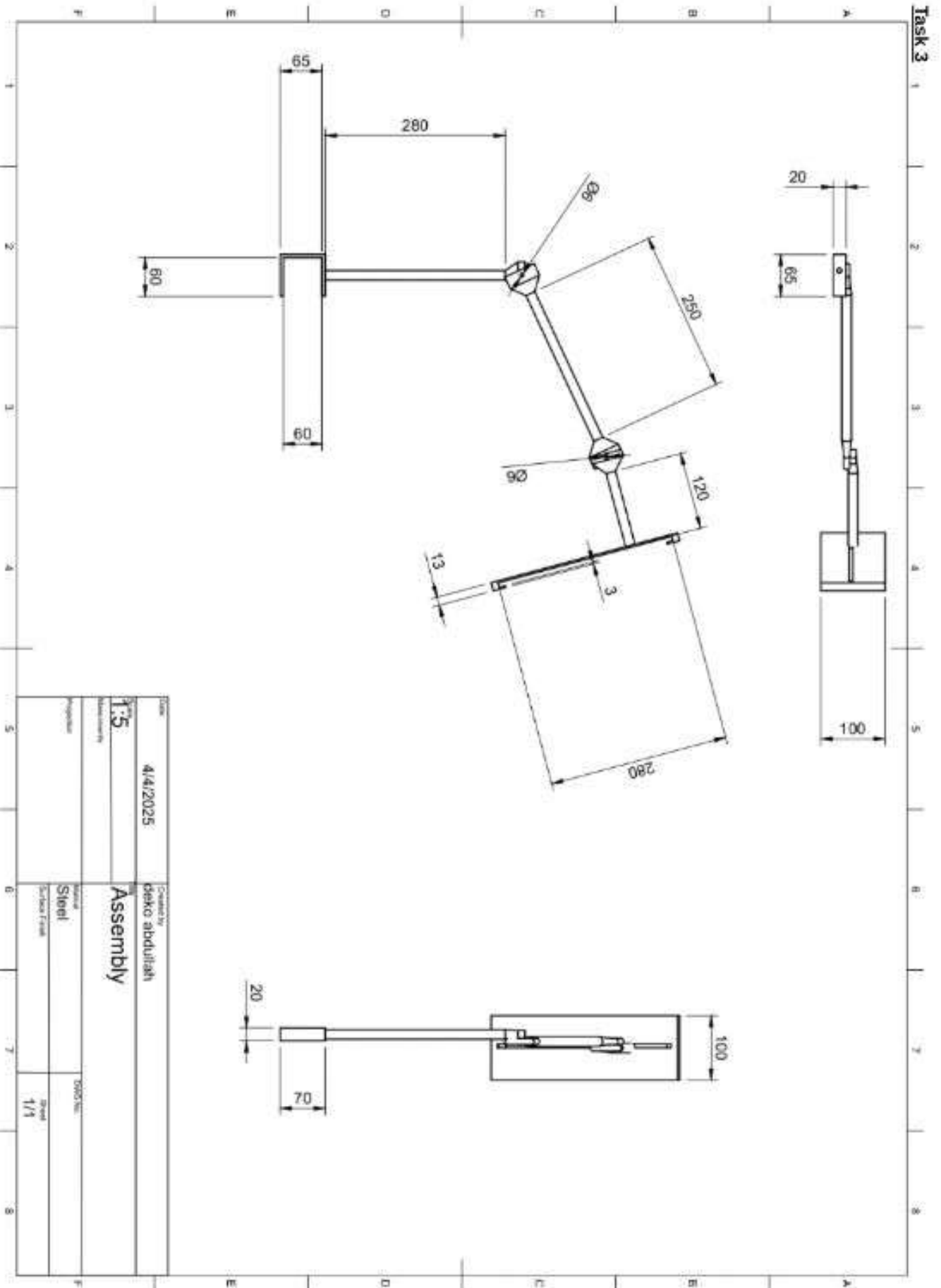
**Nuts and bolts**  
Similar to screws allows the user to tighten components together giving it more security

**Spanner**  
Allows the user to tighten nuts and bolts together much easier which ensures that they are fully tightened to ensure more security

**Safety**  
Ensures that the components will no longer be loose and therefore will be safe and secure to use



# Engineering Pass



# Engineering Pass

## Task 4

Start - Collect materials

Before I start any work I will wear an apron and also goggles for protection. First I will start by cutting a pipe into 2 pieces this will take around 10 - 15 mins.

I will cut the first pipe and 290 mm in vice this will take around 10 mins. This will be the piece to connect to the base which will connect to the table. The second piece will be 270mm this will be the part to connect both pipes. Then I will cut the final piece of pipe to 145mm.

Flatten both ends of the biggest piece of copper pipe and also I will need to flatten the ends of the copper pipes by placing the end of the pipe into a vice and tightening it. The next pipe will be flattened on one side by using a vice and tightening it with the pipe in, the final pipe will be flattened on both ends by repeating the process of using the vice to flatten it. Doing this will take around another 15 mins to do.

I will then start to cut the 50 mm mild steel in a vice for safety this will take around 10 - 15 mins. I will use hacksaw to cut through the mild steel ensuring that the cuts is at a safe angle and position.

I will then cut the 200mm galvanized steel in a vice that is secured and fastened for safety this will take around 15 - 20 mins.

I will then repeat this process for the 150mm threaded bar. I will then place the galvanized steel in the vice at a specific angle to bend into shape. I will do this to both sides and ensure that is equal on both ends of the galvanized steel. This will take around 10 - 15 mins.

Then I will fix the bench to the galvanized steel by drilling two holes on the clamp and then attach it. Then I will drill holes into both sides of the galvanized steel and place threaded bar through the holes drill previously in a vice for safety.

I will then mark out the copper pipe that will attach to the bench piece & drill through the marked out area on the bench.

I will then start to screw all the copper pipes together with screws and tools.

I will then drill a hole through the copper pipes. First I will place the biggest pipe into a vice and the and drill a hole through one side only. I will then repeat the same process for all three pieces of copper pipe however these will have a hole in both side instead of just one.

I will then drill a hole in the steel bar in a vice. This will be the piece at the bottom of the phone holder which holds the threaded bar at the end. I will then use the tap and die kit. And I will use a nut, this will cut the screw thread into the steel bar. I will then drill a hole into the galvanized steel and repeat the same process for the tap and die kit. Both of these would take around 10 - 15 mins to complete.

I will then line bend the acrylic into the shape to the size required. I will do this by measuring the lightes and dimensions of the padphone that it will be made for.

Then I will attach the holder the main body being the copper pipes. I will place the pipe into a vice to keep into place for safety. Once attached to the main body I will then test all pieces to ensure that it is safe for use.

Finish

# Engineering Pass

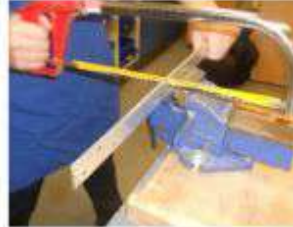
## Task 5



I first measured the pipes using a steel rule and an engineering square. I then began to cut them using a hacksaw which then left me with three pieces of copper pipe.



I then flattened the pipes by placing them in a vice and ensuring that the vice is safe for use. I then marked out the center of the flattened copper pipe using center punch and a hammer. I then drilled out the marked out area on the pipe.



Then I cut the 200mm galvanized steel using a hacksaw and then bent the galvanized steel into a 90 degree bend on each side of the steel.



I then started to cut the 150mm threaded bar using a hacksaw and placed it in a vice to ensure safety and security when I did so.



I then marked out and cut the steel bar using a hacksaw and placing it in a vice for safety.



I then marked out the center of the mild steel bar using a center punch and then used a pillar drill to cut out the marked out point. I then used a tap and dye kit to ensure that the threaded bar can slot into the steel bar.



I then drilled a hole into the galvanized steel in a vice and then used the tap and dye kit to allow the 150mm threaded bar to pass through smoothly.

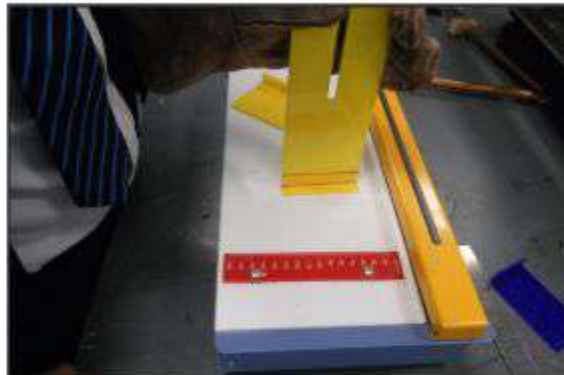
I then put together the threaded bar, galvanized steel and the mild steel bar to form the base which would tighten to the desk.

I then used the screws and nuts and bolts to tighten and combine the three copper pipes to form the main body of the phone holder.

## Task 5



I then marked out the copper pipe on the beech wood and began drilling out the marked area with a drill and the beech in vice for safety. I then placed the copper pipe through the hole and used a screw to tighten and hold it into place. I then drill two more small holes to allow the screw to pass through and then use a drill to tighten them combining the main body and the base together.



And finally I measured out my phone to ensure accuracy of the acrylic. I then used a strip heater to heat up and melt the acrylic. Once I heated enough I started to bend the acrylic into a 90 degree angle. I then repeated this for the smaller piece of acrylic. Whilst doing this I wore gloves to ensure safety from the strip heater.

I then added the acrylic to the copper pipes and tightened it to ensure safety and tested it ensure that all measurements were correct and that there were no faults in the final make.

# Engineering Pass

## Task 6

### Evaluation

Overall the materials used were a good choice for the project and were the right selection due to the fact that the copper pipe used for the main body won't rust meaning that the phone holder has a durable main body and also the copper pipe is a cheap making costs lower . the actual holder is made out of acrylic which is a cheap option to keep the cost down however the acrylic can easily be melted if exposed to heat of fire The base is made out of beech and steel which is a tough and strong and durable material which means the phone holder will last a long time

The hand drafted engineering drawings were useful as it allows the ensure the measurements were accurate which would later play a big role in the making of the project. The CAD drawings had the same use as the hand drawn drawings. This would allow me to make sure that my measurements were accurate and perfect.

The production plan allowed me to keep track of my project whilst it was in the making, it help me by allowing me to ensure that all the steps in the project were completed . the production of the final working scale was successful . i used a hacksaw and many other tools to ensure that project was done to the best of my abilities. The finished products functionality was good the main body could be adjusted to the users desires and also the acrylics function was fulfilled by adjusting it based on the users preference

### What could be improved?

The acrylic used for the holder itself could be changed to a more heat resistant material making it more durable however this would require a different moulding process like injection moulding. the adjustable piece of acrylic could be changed to a sliding mechanism to allow the user to change it without having to unscrew all the acrylic pieces making it easier to use. The pivot points could be change to a more a secure material to ensure that the metal pipes are put together and ensure that it is safer for the user to use.

# Food & Cookery

## L1 Pass

Task 1 - Amended recipe

Dish name: pasta and mega meatballs with a sweet and spicy sauce		
Ingredients		Equipment
<b>200g beef mince</b> 3 fresh garlic cloves very finely chopped handful of fresh parsley leaves 1 organic free range egg,beating a grating of fresh nutmeg sea salt and freshly ground black pepper	<b>for the sauce</b> 4 tbsp extra virgin olive oil 2fresh garlic cloves finely sliced 2 tbsp golden caster sugar 2 tbsp white vinegar 100ml fresh chicken stock 1 can organic chopped tomatoes 1 tbsp fresh oregano finely chopped 1 tbsp mild chilli powder peppers onion 400g fresh spaghetti or linguine	frying pan measuring spoon scale knife chopping board saucepan wooden spoon mixing bowl
Time	Method/Sequence	Special considerations Health and safety
4 min	1.mix all the meatball ingredients in a large bowl	put personal belongings away wear an apron get your clean cloths tie your hair back wash hands clean the surfaces set out the equipment no cross contamination tidy as you go
5 min	2.season generally with the sea salt and black pepper,then scrunch the mixture together until combined	
3 min	3.roughly divide the meatball mixture into 5 portions	
10 min	4.use your hands to flatten one portion,then gently wrap it around a piece of the mozzarella and roll into a ball and repeat with remaining portions	
5 mins	5.chill the meatballs in the fridge whilst preparing the sauce	
20 min	6.heat 2 tablespoons of the oil in a large frying pan,fry the meatballs in batches,browning them all sides,then transfer to a plate and set5 aside	
2 mins	7.pour all the remaining oil into the pan and heat for 1 minute,then fry the sliced garlic for a few seconds	
15 min	8.tip the sugar and vinegar and simmer for a minute,add the chopped tomatoes,then seasonings and cook over a medium heat for 10 minutes,reducing the sauce a little	
10 min	9.tip in the meatballs and gently stir a ensure they are fully coated in the sauce,cover the pan and simmer on a low heat for about 20 minutes,spooning the sauce over the meatballs occasionally	
7 mins	10.meanwhile cook the spaghetti	
1 min	11.to serve,divide the spaghetti between 4 bowls,top with 3 warm meatballs each,spoon over the sauce and scatter with the remaining parmesan	
	12.garnish with fresh basil	

Task 1- Amended recipe -

<https://groceries.asda.com/>

Asda organic beef mince cheaper than having your lean mince and more rich in protein

You can either do grated parmesan or you can get it with a block and grate it yourself because more cheaper which is around £1.40

Sea salt is more expensive as it is harder to get which is around £2.50 but normal salt is way cheaper as people use the table salt often and it's also a lot cheaper 50p

5 a day

Courgette

Shredded carrots

Boiled vegetables to get more flavour and also different texture

Fresh garlic cloves

Task 1 - Amended Recipe -

Original recipe	Amendment	Why?
200g organic beef	Beef mince	Extra protein and more energy that is required for children's growth. It also helps with the children as they are outside all day and need energy. Organic is expensive.
200g organic pork mince	pork mince	More protein could have half beef and half pork
3 garlic cloves		
A handful of fresh parsley leaves	5 a day and healthier for you	Healthy and can be used to garnish. This will make my dish look better.
1 organic free range egg	Its better for you as there are no chemicals.	Tastes better and the yolk is more of a brighter orange and source of protein. Expensive so use a caged egg.
Sea salt and freshly ground pepper		More taste and more seasoning
50g of buffalo mozzarella		Stringy texture adds flavour to the dish and a source of calcium needed for strong bones.

4 tbsp of virgin oil	frylight	Its more healthier to cook the meatballs in
2tbsp golden caster sugar	To add in more flavour could just use granulated sugar.	Makes the meatballs sweet and its cheaper.
2tbsp white vinegar	Adds a stronger taste	Cheap and also giving a boost of taste
100ml fresh chicken stock	Really cheap	Healthier and has protein in it with lots of flavour
1 can of canned tomatoes	Healthy	Helps with taste and also texture one of yur 5 a day.
1tbsp of fresh oregano	5 a day	Texture is better
1tbsp mild chilli powder	To add flavour	A bit of spice adds more taste
	Sweet peppers and onion	Flavour, colour and rich in vitamins.
400g fresh lingue	Cheap	Very filling
Fresh basil	5 a day	For decorations

# Food & Cookery L1 Pass



This is me cutting my vegetables which considers one of my 5 a day making sure i use the claw method with a paring knife



Peeling the onion and dicing it making sure i use the bridge method and not cutting the onion eye of the onion or it would burn your eyes



This is me mixing my meat all together and adding seasoning for more flavour



After i sprayed my frying pan with frylight so the meatballs don't stick. then i cooked the meatballs until it was crispy on the outside and soft in the inside



After my meatballs were cooked i put them aside and started with my pasta and sauce. to make sure the pasta was cooked i got one strand and pinched it if it would rip.



When the pasta was cooked and turned the temperature all the way down and started to mix my sauce so it could thicken up

When my sauce was done i let it sit in low temperature and added my meatballs in it and made sure it was coated in lots of sauce



To present my dish i got some plates and put my pasta in it, then i got my saucy meatballs and put them on top

# Food & Cookery

## L1 Pass

### Task 2b

#### Sweet and spicy spaghetti and meatballs :

In my NEA I made a dish with spaghetti and meatballs. We made it sweet and spicy to give savory flavours that was really well. I made sure I was using the bridge and claw method for more safety and more neat. To make my dish presentable I used these really good looking plates to put my pasta and meatballs in.

I think my dish was successful as it contained our 5 a day and had lots of nutrients in it that outdoor kids would need for more protein and more energy. I used linguine as its a complex carb and very filling. The benefits of 5 a day is that it has lots of vitamins and minerals. They are an excellent source of dietary fibre which can help to maintain a healthy gut and prevent constipation and other digestion problems. A diet high in fibre can also reduce your risk of bowel cancer

#### improvement :

I think I could of maybe blended my sauce so it could have a smooth texture and suitable for teenagers who doesn't like vegetables and add a bit more chilli as I added a bit too much sugar. Instead of me using sugar I could of used something with natural sugars like honey. Because its healthy and also very good for you especially when your ill or I could of used syrup but that also have a lot of sugar which is really bad for you. With my dish I think I could of done the meatballs a bit smaller as it would be easier to eat but overall I loved this dish as it was new to me since I never had sweet spaghetti meatballs and for my first time if I loved it and it gave a boost of sweetness which I really liked.

#### Four food senses

The taste of my dish was really delicious as it was full of flavour and our 5 a day which really good for you. Even my teacher tried my dish and she really liked my dish as it was full of flavour and goddesses. The smell of my dish was incredible as it made my mouth drool. The texture of my dish was really good and the crunch of veggies were really good and also its your 5 a day which is really healthy and good for your health. The appearance of my dish looked really good and delicious.



Task 3a - Menu and action planning for a two Course Menu - Selected dishes.

#### Selected dishes.

Starter: potato wedges

Paprika potato wedges

Main: vegetarian bolognese

Vegetarian bolognese recipe

GF

Good Food

<https://www.bhggoodfood.com/Recipes>

I've decided to make a vegetarian bolognese for my main and for my starter paprika potato wedges with a mayonnaise dip.

I picked this 2 course meal as the vegetarian bolognese has lots of nutrients and also your 5 a day which you need in order to maintain a good lifestyle. This meal is really good for you as it's very filling and also very healthy and good for those who have problems with their dieting. This offers a range of health benefits, Not only being lower on saturated fat but providing a variety of nutrients from plant based ingredients. One of the key benefits of vegetarian bolognese is its richness in vitamins and minerals as it is full of vegetables.

Paprika potato wedges will have twists on traditional potato wedges. Paprika potato wedges have a bold flavour as paprika adds smoky, slightly sweet taste that elevates the natural flavour of the potatoes. This also adds a crispy texture when baked the wedges become crispy on the outside while on the inside is fluffy and soft. This makes a good starter dish to prepare and baked potatoes are way healthier than frying.

Nisanur Koc - Task 3a-menu and action plan

Dish name: vegetarian bolognese and paprika potato wedges		
Ingredients		Equipment
<b>vegetarian bolognese</b> 2 tbsp olive oil 1 medium onion (finely chopped) 2 carrots (finely chopped) 2 celery sticks (finely chopped) 1 crushed garlic clove 350g frozen vegetarian mince 1 bay leaf 500ml passata 1 vegetable stock cube	<b>paprika potato wedges</b> 400g floury potatoes 2 tsp sunflower oil 1 tsp fine sea salt 1 tsp sweet paprika ½ ground pepper 1 tsp salt  <b>dipping sauce</b> ½ mayonnaise	vegetarian bolognese saucepan knife chopping board wooden spoon measuring jug frying pan  paprika potato wedges baking tray

100ml milk small bunched basil 600g cooked spaghetti half a tin tomato sauce vegetarian hard cheese to serve on top	2 tablespoon honey 2 tablespoon prepared yellow mustard 1 tablespoon dijon mustard	bowl spoon Chefs knife chopping board baking parchment  To serve side Plate Side plate knife and fork pasta dish.
Time	Method/Sequence	Special considerations Health and safety
10min	<ul style="list-style-type: none"> <li>Take my bag off, put an apron on and stack stools. Wash hands with hot soapy water and dry. Then clean the surface so no bacteria is around.</li> </ul>	tie hair up so none of your hair gets in the way but also so it doesn't fall into the food.
5 min	<ul style="list-style-type: none"> <li>Get ingredients and equipment out so I am organised.</li> </ul>	wear apron so our clothes don't get dirty
10min	<b>Paprika potato wedges:</b> <ul style="list-style-type: none"> <li>Preheat the oven to 220c/200c fan/gas 7.</li> <li>Cut the potatoes lengthwise with a chef's knife into sixth or eighths with the skins on.</li> <li>In a bowl mix the sunflower oil with the paprika and salt. Add the vinegar and the pepper and use it to marinate the potatoes while the oven preheats.</li> </ul>	wash hands to take all that bacteria off with warm water and soap  clean surface so the table counter is nice and clean and it also takes off bacteria
2min	<ul style="list-style-type: none"> <li>Line a baking sheet with parchment paper and spread the potato wedges across it.</li> </ul>	make sure all stools are stacked and out of the way so no one trips
2 min	<ul style="list-style-type: none"> <li>Roast for 30 mins until crispy and golden turning half through this ensures they get nice and crispy on both sides.</li> </ul>	maintain good hygiene so your all healthy and ready to cook
10 min	vegetarian bolognese <ul style="list-style-type: none"> <li>Peel and dice the vegetables using a paring knife and green chopping board.</li> </ul>	when I was cooking I made sure the temperatures were all right to get that good flavour but also so it doesn't burn. I also tried being quick and tried to clean my surface again while my food was cooking and also washing up my dishes to save me more time.
15 min	<ul style="list-style-type: none"> <li>Heat the oil in the sauce pan and gently fry the onion, carrots and celery until the onion starts to soften.</li> </ul>	

2 min	<ul style="list-style-type: none"> <li>Stir in the garlic and vegetarian mince and fry for a couple of mins add the bay leaf passata.</li> </ul>	
5 min	<ul style="list-style-type: none"> <li>Add the vegetable stock cube to 200 ml of boiling water, then bring everything to a boil.</li> <li>Turn down the heat and simmer for 30 mins or until all the vegetable pieces are tender into the tomato sauce.</li> </ul>	
10 min	<ul style="list-style-type: none"> <li>Boil spaghetti.</li> <li>Add the milk then cover with a lid and cook for 10 mins.</li> <li>Season to taste if the sauce is a bit thin, keep bubbling till it thickens.</li> </ul>	
3 min	<b>Make homemade mayonnaise</b>	
5 min	<ul style="list-style-type: none"> <li>Weigh out ingredients and measure oil in a jug.</li> <li>tsp of mustard add all the other ingredients and blend. Add oil a bit at a time until it thickens.</li> </ul>	Safe use of the blender be careful not to cut yourself on the blade.
5 min	<ul style="list-style-type: none"> <li>Stir the basil serve with the spaghetti and serve grated cheese on top</li> </ul>	Grated cheese on top improves the appearance and will attract children.

# Food & Cookery L1 Pass



I came in and i put my bag and blazer away and tied my hair, after i cleaned my surface then i took all my equipment out so i'm all ready



After i got my equipment out i went and got my ingredients and started chopping and dicing my vegetables using a paring knife and green chopping board.



I diced my vegetables using the bridge and claw method and cooked them in frylight. I used a paring knife and green chopping board. I added some frozen peas to add more of my 5 a day.



While my vegetables were cooking i went and seasoned my wedges and lined up in the baking tray ready to go in the oven



When my wedges were done i took them out and i let them cool down. I made sure to remove them from the oven with a thick towel.



When my wedges were cooling down i went and put my passata in my vegetables and i made my vegetable stock and poured it in so it can simmer away and be ready.

I boiled my pasta and when it was done i prepared my dish



I decided to make homemade mayonnaise as a dip for my wedges. I blended and added the oil slowly until it thickened.



These were the results of my dish and it turned out tasting amazing but it was also healthy and it had complex carbs that fill you up really quick

# Food & Cookery L1 Pass

## Task 3C - Evaluating a two course meal

I made smokey paprika potato wedges and vegetarian bolognese because it's healthy and good for people encouraging them to eat a healthy balanced meal. Both my dishes are suitable for a Female who is a vegetarian working outdoors with children.

They contain 5 a day which is really good for you and are full of nutrients and has the right source of vitamins and minerals for the female worker and also my dish is high in protein needed for growth.

For my vegetables I diced them using the bridge and claw method and I used frylight to cook them. While they were cooking I went and grabbed my potatoes and sliced them with their skin on, then I got my seasonings and seasoned them and made sure they were fully covered with flavours. I lined them up in a baking tray and put them in the oven at 220 degrees for 30 mins. while that was in the oven I added my passata to my vegetables and my vegetable stock in and made that bubble away. Then I went and got my spaghetti and boiled them. After they were done I prepared my vegetable bolognese on my plate. When that was done I took my wedges out and let them cool down. While they were cooling down I made my own dipping sauce since it's healthier from the ones in the supermarket and the prepared my dish. For my dish I also made my own dipping source which is better than buying the ones from markets. My dipping sauce was really good as it tasted the same as the ones in the market and it had no differences between them.

What cooking skills did you use and why? To make my dish even healthier, I used less oil and more vegetables to make it healthier and it's also good for your health and it's also your 5 a day

Overall outcome of the dishes? *Positives and negatives everything was good about my dish except I added too much chilli flakes on my wedges that made it really spicy*

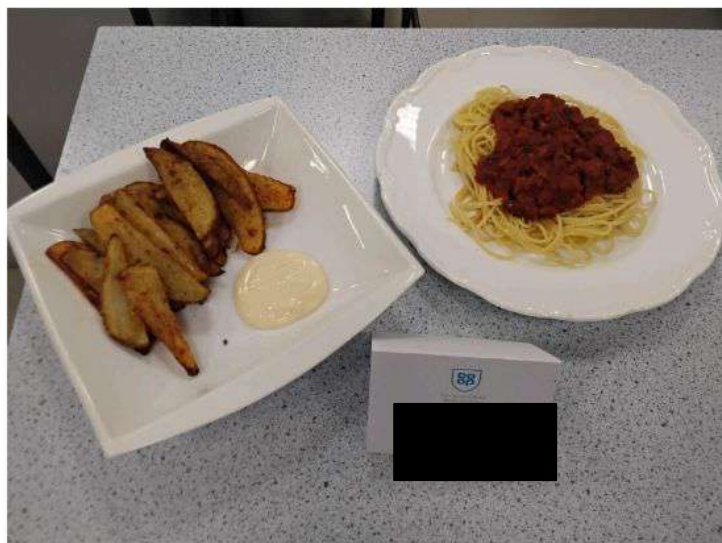
What amendments did you make to improve the dishes and why? For my cooking When adding herbs and spices I must weigh them out so I don't add too much. I need to stick to my plan and not make last minute changes as it can ruin the dish. Instead of spaghetti I could have served my veggie bolognese with wedges. I made homemade mayonnaise but I would have liked to have made a curried mayonnaise to add that spectacular flavour

Taste? The taste was really good but I wish I added less chilli flakes because it was really spicy

Texture? Texture was amazing and the potato wedges were nice and crispy

Appearance? Looked really nice and presentable and I also used different plates to make it look aesthetically pleasing .

Final thoughts? Overall this dish tasted delicious and was healthy with all the vegetables and I'm proud of myself . People said that my vegetables and pasta were cooked perfectly. Instead of plain mayonnaise and curried mayonnaise would have complimented the dish.



# Food & Cookery

## L1 Pass

Nisanur koc-Task 4a- Preparing and cooking a dish suitable for someone with a food related health condition.

For my layered cake i'm going to spread my butter cream and make sure its neat then after im going to pipe it and make it look attractive and chocolate shavings to put in the middle

### Risks and Benefits of Increased Nut Consumption

National Institutes of Health (NIH) (.gov)  
<https://omc.ncbi.nlm.nih.gov/articles/PMC5748805>

### Peanut & Tree Nut Allergy

Anaphylaxis UK  
[https://www.anaphylaxis.org.uk/~/Fact\\_Sheets](https://www.anaphylaxis.org.uk/~/Fact_Sheets)

### What Nuts Are the Worst for Allergies?

MedicineNet  
<https://www.medicinenet.com/article>

I have chosen this recipe because its a layered desert and its NUTfree and it meets her needs

<https://www.bbcgoodfood.com/recipes/naughty-chocolate-fudge-cake>



this is an image of how i want to decorate my cake and have chocolate shavings to put in the middle on my cake

amendment :

To make it more attractive,instead of spreading the top down with icing i decided to pipe it

Task 4 (b) Evaluation of my layered dessert.

I decided to make a chocolate fudge cake for my spectacular layered dessert practical. There was a use of complex carbohydrates which I used for my layered dessert. Complex carbohydrates are good as it fills you up and helps your digestive system. My cake has lots of simple carbohydrates that will give you a boost of energy and it can be digested easily for my cake. I decided to spread some icing in each layer of my cake that has butter which means there is a source of dairy which strengthens your bones that has lots of calcium in which is also good for your teeth. Dairy also helps with the immune system that helps growth and repair. In my cake I also added 2 large eggs which contains lots of protein that maintains nutrients which is good for your heart and health because it also has vitamin A and they also provide iron that makes up more blood and a healthy immune system.

What went well? My chocolate fudge cake contained no nuts for the people that has nut allergies. My layered cake met the brief as it was spectacular and was perfect for the outdoor play centre. I decided to make chocolate icing cream to fit in the theme, however I made a vanilla icing to pipe at the top to make it stand out more and make it look more spectacular. I managed to make my cake look presentable and the results were really good and I really recommend. Although I managed to make 3 layered cake since I had more batter. When getting my ingredients I made sure to check back so there's no nuts or common allergies.

Does it meet the requirements of my brief? Yes, as it tasted really good and looked fabulous, however, I didn't have enough chocolate icing to spread everywhere on the cake so I had only a little to work with and I also had no time, if I could make it again I'd make sure I won't mess up and also have more extra time as we all needed it. An improvement would be making sure all my layers were the same and also have more chocolate icing for my cake to actually make it look like a chocolate fudge cake. Overall my cake was delicious and I also gained a skill as I piped my cake which I've never done before and for my first try I did really good as piping but it was a bit hard squeezing it and doing the perfect shape. But if I had more time I wouldn't of not rushed it and I could of took my time but I didn't have any time.

My family thought my cake was really good and they said from now on I should be making cake at home. They said it was moist and also bouncy and they loved the butter cream on it which added more taste to my cake.



# Geography

Sediment dropped - DEPOSITIONAL LANDFORMS (small)

## BEACHES

(in bay)  
What is the main process to form a beach? Deposition

Why does this occur? Sheltered / loss of

energy

What type of waves are mainly responsible? Constructive

When can beaches form? Storm -> Destructive waves

## SAND DUNES

-> hills at back of beach

Sand blown over the beach until it hits an object

(log/rock)



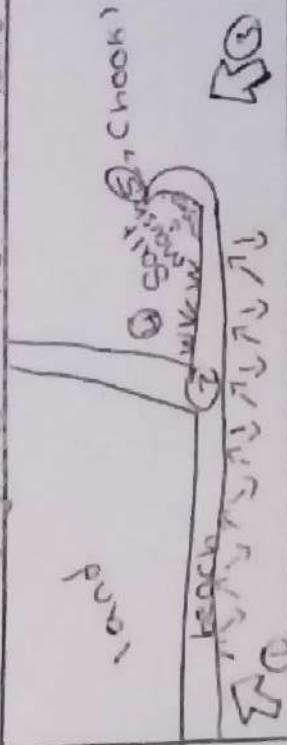
Marion grass holds together to prevent erosion

Sand settles + builds up around the object

continuous process across the beach

## SPITS

- Long, narrow piece of land made by sand



1 LSP (Long Shore Drift) carries sediment along the coast

Forced by prevailing wind

2 AS the shape of the land changes sediment is deposited

↳ builds up

3 change in prevailing wind causes a hook

4 only permanent if marion grass grows on it

5 Behind the hook is a salt marsh from trapped sediment

## BARS/TOMBOLO



Bar = 2 headlands join through a spit



tombolo = spit reaches an island



# Health & Social Care Pass

## Health and Social Care

### COMPONENT 1: Human Lifespan Development

#### Task 1 – PIES growth and development through the life stages

In this task I am going to describe how a person develops physically, intellectually, emotionally and socially through both infancy and early adulthood. I will then explain the changes in development between infancy and early adulthood.

#### Infancy Physical Development

Between 0-2 years old babies change and grow, like they can't move, they can't chew, they can't take a bath or do anything by themselves because they are newly newborns and they don't have that much power. Their muscles are not strong enough. As the newborns (infancy) begin to develop, they can move their head and in between 2-4 months old babies are more grown and changed, they can move their arms and legs. At 4-6 months old babies can not sit up because they haven't grown that much

but they can roll over because it's common and their muscles have changed neck, back and arm that's why they can roll over. At 6-9 months old babies can stand up but need to hold something like furniture. At 12-18 months babies can walk, they can eat by themselves and also sit in a sitting position. Finally, at 1-2 years infants might get better hand eye coordination is physical and cognitive skill, eye movements or moments with hand movements like a sign to guide an action. And build a tower and also turn the pages of a book.

#### Early Adulthood

Early adulthood is between 19-45 years. They can do whatever they want to. They are able to play sports e.g badminton, dodgeball, basketball etc. They are having more time to travel, socialise and take up hobbies as any children may be leaving the home; beginning of the menopause ageing process. In early adulthood you have reached full height. People will become pregnant and have children during this period. Women's bodies change a lot during pregnancy. They put on weight, they have lots of hormones and the women's body produces milk to feed the baby. Pregnant women might find it hard to exercise due to the additional weight and body shape. During adulthood the body changes, you can get grey hair or become bald, skin can become wrinkly, eyes may start to deteriorate and you may need glasses or your hearing may get worse and may need hearing aids.

#### How Physical Have Changed From Infancy To Early Adulthood

In infancy their eye colour when they are born is grey this is because the newborn eyes can appear grey because of a lack of melanin which means the pigment responsible for colour in the iris; which hasn't been fully activated by light exposure yet. And their muscle is low because their melanin levels are generally low. After 6 months the eye colour will change to their permanent colour for the remainder of their lives. In contrast to early adulthood the eye colour never changes; it stays the same colour for the rest of your life. In contrast, in early adulthood, the eye colour stays the same because the eye colour stays the same because the melanin levels are now stable and do not change anymore.

In infancy, a baby is not able to take part in sports because their muscles and coordination are not fully developed. They can only make simple

movements like grasping or kicking. However, in early adulthood, they have better coordination, stronger muscles, and improved motor skills, which allow them to take part in all kinds of sports and physical activities.

A baby's hair colour can also change as they grow. Many babies are born with light or fine hair that becomes darker or thicker as they get older, because melanin increases. By early adulthood, hair colour and texture are fully developed and usually remain the same, though it may change again later in life.

In infancy, babies are small and gain weight and height rapidly during their first years of life. Their growth slows down during childhood but increases again during puberty. By early adulthood, they have reached their full height and weight, and the body stops growing taller. A baby's body shape is soft and round and chubby because they have more body fat and less muscle. As they grow, muscles develop, bones become stronger, and their body shape becomes more defined. In early adulthood, the body reaches its strongest and fittest stage, with well-developed muscles and coordination.

#### Infancy Intellectual

##### Infancy

So from zero to two months the baby's neck, back and body muscles are not strong enough to hold up their head and back so they need support. Their nervous system is still developing, and if they were born early, this can affect their strength. Between the ages of 0-2 months babies start to learn to speak, this is called babbling. However at 0-2 months babies communicate by babbling, babbling when the baby makes early speech sounds like for example mama or baba like mumbling. They also cry when they need something, crying when they are hungry and tired. Between 6-12 months they start to understand simple words like their name, "mama," and "milk". They also start to use gestures like waving bye. During the stages between 6 to 9 months the babies start to chew like soft foods or solid food. The parents teach the babies to feed themselves by letting them touch the soft food with their hands or spoon. Children start to feed themselves with the knife and fork between 18 months and 3 years old, they should be able to stab the food and bring it

to their mouth. Parents may teach toilet training between 18 months and 3 years old; some children wear nappies during toilet training because they can't control their bladder. Their nervous systems are too immature to manage the reflex of urination. Around 0-6 months babies can recognise and remember faces; they might remember faces from their memory. They start to use their short term memory so they might be able to remember their face. However their long term memory is not as good, they will not remember everything like faces or toy something like that so at 6-12 months babies might start to remember daily routines e.g to brush the teeth or prepping the day so at 12 months to 2 years old they might now start to develop their long term memory and might be able to remember some thing.

# Health & Social Care Pass

## Early adulthood Intellectual Development

Between **early adulthood** some people get married by teaching them how to communicate, compromise, respect and honesty. This is important to be able to work as a team and support each other and shows how love requires continuous effort and commitment to work through problems together. It also teaches them how to sort out finances, feeling and health and also how to resolve any issues such as arguments before they get out of control.

Love and respect is also important in a marriage. It needs to be nurtured through effort and trust. It is important to value each other and appreciate everything they do for you.

Having a child in **early adulthood** teaches patience, selflessness and unconditional love. It teaches you to have inner strength and how to prioritise family needs. You learn to manage sleeplessness, stress and imperfections and take responsibilities for another younger human.

**Early adulthood** when you start the drive you need to learn practical skills such as controlling the car, how to use the pedals and steer using the mirror and also learning the highway code because you need to be safe on the road. You also develop patience, how to focus and be aware of your surroundings and to have a positive mindset.

Getting a degree in **early adulthood** teaches important skills, communication, team work as well as knowledge. It gives you a better chance of employment and boosts your confidence.

Intellectual development in **early adulthood** is also linked to career growth and further education. Divorce can sometimes interrupt these goals like someone could delay studying, training, or pursuing a promotion because they are too focused on legal issues or family responsibilities. On the other hand, some people use divorce as a motivation to focus more on their career or education as a way of creating independence and a stable future.

## How Intellectuals Have Changed From Infancy To Early Adulthood

In infancy their vocabulary is low, this is because their ability to process and keep new words is still developing, like they still don't know how to speak or talk, however they can only communicate with some words with some words for example 'mama' or 'dada'.

In contrast, in early adulthood their vocabulary is better as they can use words like 'because' or 'however'. This is better because they have learnt to use words and understand their meanings. Infants can not read and write because their brains are still developing and they haven't learnt language skills yet because they are still babies. However, adults can read and write as they have learnt to do this in school and social media and through experience

A baby does not have a long term memory because their brain is still growing and they have not yet developed that part of memory. This means they can not remember things from when they were younger. In contrast an adult has a better memory because their brain is fully developed, this means they can remember things from their past experience. Something like that.

Infants can not solve it yet because their thinking and understanding is limited. However, in early adulthood you are able to problem solve because your brain is mature and you can think of different ways to fix a problem and you can think whatever you want.

During **infancy**, babies start to develop feelings through bonding and care so they usually form their first attachment with their mum. This makes them feel safe or loved and comforted, which helps them trust others. When they are hungry, **babies** cry because they feel frustrated and uncomfortable. Once the infants are fed, they feel calm, happy, and secure again. These early feelings teach babies how to express emotions and begin to understand love and comfort from others.

When **infants** play with toys, they often feel excited, curious, and happy. Toys give them a sense of fun and enjoyment. When babies are hungry, they show various cues, including putting their hands to their hands and opening their mouths. They become fussy like becoming increasingly distressed or fussy and Crying is the strongest hunger signal but also a late one that can make feeding more difficult and frustrating for both baby and parent.

## Early Adulthood Emotional development

In this life stage an adult gets married, this causes the positive emotion of happiness. This is because they are excited about sharing a future. However, it causes a negative emotion of losing spark. This is because over time can result in a feeling of distance and a lack of excitement or joy in being together or Major life changes like having kids, new jobs, new house or moving can put immense pressure on a relationship, potentially straining the connection and causing negative emotions to surface.

In this life stage people will have their own children, this causes positive emotions known as joyful and happiness. This is because some people feel a deep sense of happiness and elation at becoming a parent. It can also cause a negative emotion like stress or anxiety. This is because some people who are mum can get stressed because their child who isn't born yet can die already in the belly.

In this stage of life, people often buy new cars, which brings a positive feeling of excitement. This is because they are happy to drive their own car, enjoy the freedom of going anywhere, and feel proud to show others their new car.

It can also cause a negative emotion when buying a new car. This is because it can cause stress about spending a lot of money or worrying about debt, or feeling pressure to look successful. Some may also feel anxious about keeping the car safe or paying for repairs and insurances, maybe rent.

## How Emotional Have Changed From Infancy To Early Adulthood

Infants are not able to read emotions on people's faces. Therefore they will struggle to understand how another human is feeling. If they don't know how someone is feeling they can not react. For example, if someone smiles, a baby may not understand that it means happiness. In contrast an adult has learnt how to read how people feel from looking at their face. For example if a person is angry they will see their face look tense or serious and understand that they are upset

An infant can not control their emotions because their brain is still developing and they do not understand what they are feeling. They might cry when they are hungry or tired because they can't express their emotions with words. However, in early adulthood an adult has learnt how to control them. They have learnt this by gaining experience, understanding their feelings, and learning how to calm down in stressful situations.

# Health & Social Care Pass

## Infancy Social Development

During infancy, babies begin forming their first social relationship. They bond with their main caregivers through eye contact, smiling and cuddling. They start to recognise familiar faces and voices, and show trust and comfort when their needs are met. As they grow, they begin to enjoy simple interactions like peek a boo or smiling back, which helps them learn how to connect with others like copying.

When babies begin to talk, even with simple words, it helps them connect more with people around them. Talking helps them to express their needs, share feelings, and respond to others. This builds stronger bonds with caregivers and makes it easier to start new relationships. As they learn more words, which helps them make friends.

## Early Adulthood Social Development

In **early adulthood**, people usually build close relationships outside their family, such as friendships, romantic partnerships, or even starting their own families. They may focus on finding a life partner, building a career and becoming independent. Socially, this stage often includes making

long-term commitments, creating strong support networks, and learning to balance work, family, and friendships. In early adulthood people can do work such as making reels, tiktok and they can get money.

## How Social Have Changed From Infancy To Early Adulthood

An infant spends the majority of their time with their parents and siblings. This is because they depend on them for care, comfort and safety. This means they become close to them because their parents meet all their needs such as feeding and cuddling.

However, an adult may spend less time with their parents and siblings because they are busy with work, education, or their own family and friends. Being away from their parents may affect their bond because they may not see them as often.

An infant is too young to make a best friend because they are still learning how to communicate and play with others.

However, an adult will find it easier to make friends and have best friends because they can talk, share interests, and spend time with people they connect with.



# Home Cooking

## Whisking

Used for flour, cream, eggs, batter because it can get air in the mixture to make light and rise.

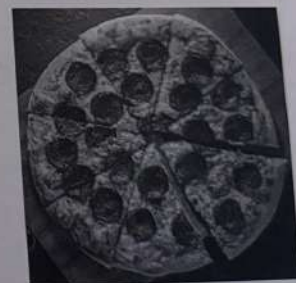
Whisking is used to combine the ingredients together and to add air.



## Baking

Used for bread, cakes and pizza

Baking is when you use an oven to cook it on heat



## Roasting

Used for potatoes, chicken, turkey.

Roasting is when you use the oven to cook.



# Home Cooking

## Frying

Used for frying eggs meat, and vegetables.

Frying is when you use for oil, butter, lard and fats to cook on a hob because it prevents it from not getting sticky.



## Steaming

Used for steaming broccoli and carrot and other vegetables that is cooked.

Steaming is when something is cooked over when steam rises it and cooks it on heat.



# Information Technology

## Pass

# Client Requirements

The council wants the children aged 5 to 9 to start playing outdoors in the nature especially at a young age since its good for them and its fun

The council had asked you to make a couple of pages for a series with a storyline that will encourage children to go outside and go on adventures

The council would like benefits like

- Being able to do activities such as learning about nature and the outdoors
- The sunlight provides vitamin D which would be very useful for he kids
- By going outside the kids are staying fit and healthy by doing adventures and running around

The council wants you to make a man character for the comic that you're going to be making. The characters style has not been confirmed by the council. You must design and create an original character that should be at the same target as the audience and use this as the main character in your comic

## Moodboard

This is a example that you could use for your comic maybe take ideas from it



This is the text you will be using to represent how the characters are going to talk



Different fonts to entertain the kids aged 5-9 and also to read it easily

AABBCCDDEEFF  
GGHHIIJJKLLMM  
NNOOPPQRRSS  
TTUUVVWXXYYZZ  
0123456789!@  
%&\*^&()~



Different types of speech bubbles for when the characters are talking

This is an example of the page layout that you could use

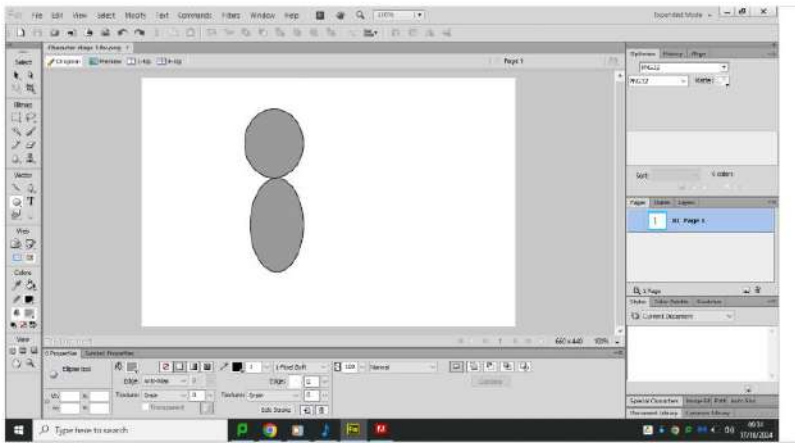
Comic panels will need to be different sizes to fit numerous things inside



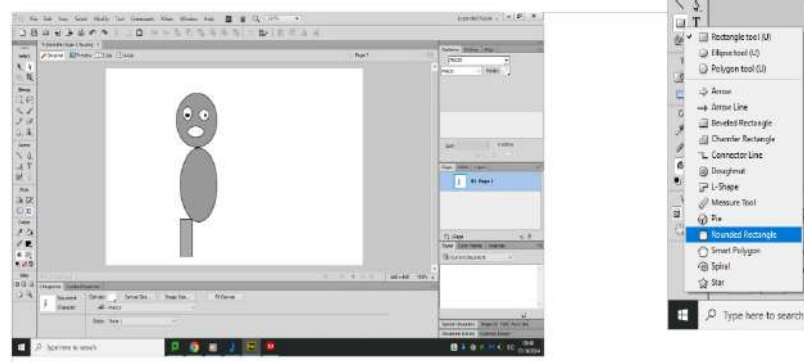
This is an example for your comic that you could use

# Information Technology Pass

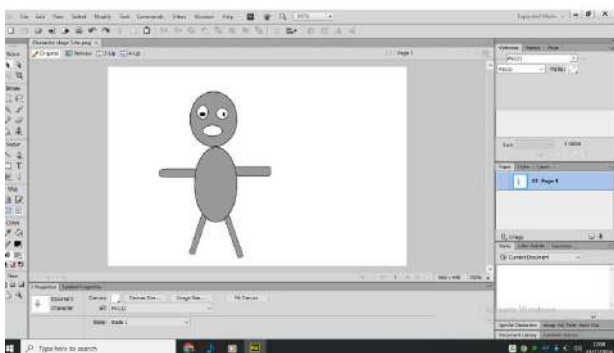
## Making character



## Eyes and leg



## Arms

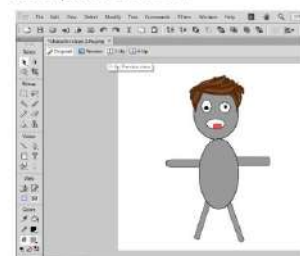


Used rounded  
rectangle

## Hair

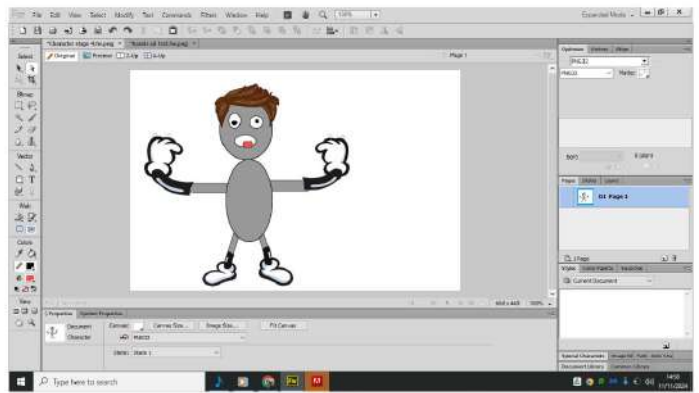
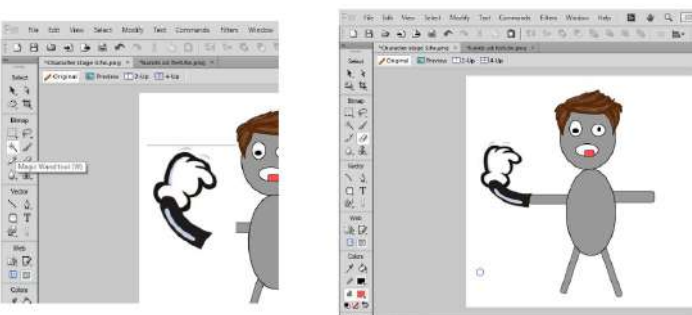
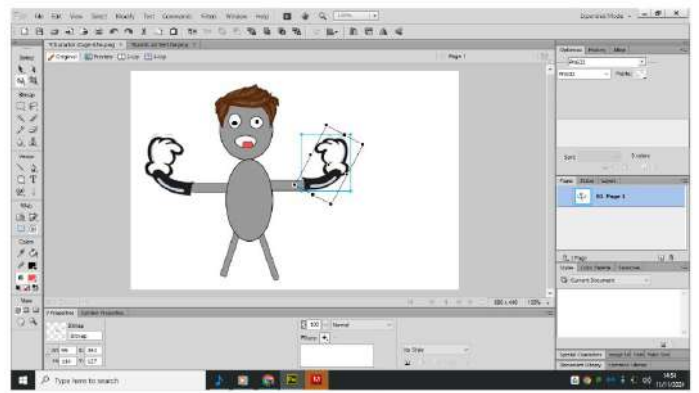
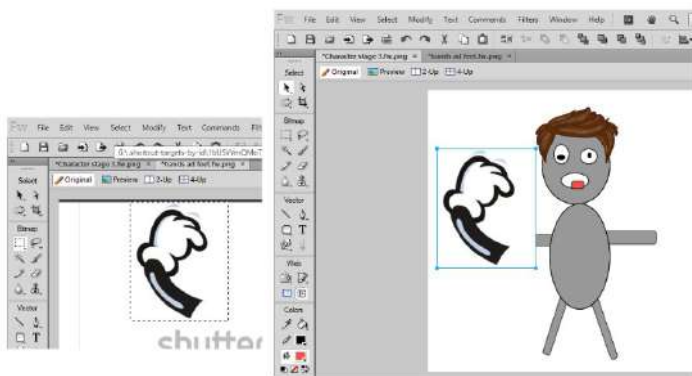
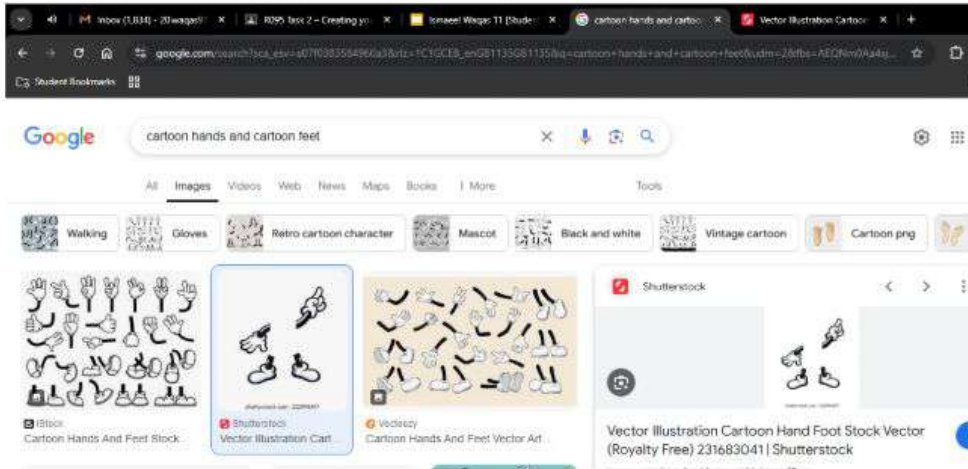


Added hair from pinterest  
[www.pinterest.com](http://www.pinterest.com)



# Information Technology Pass

<https://www.shutterstock.com/image-vector/vector-illustration-cartoon-hand-foot-231683041>



# Information Technology

## Pass

- **Check and review your character and comic**

My character is fit for purpose because its the correct size of 300 dpi and 300 pixels, this also means correct resolution and it will not pixelate when printed. My character is saved as a psd to be edited and png so it is transparent so the character can be put on every panel. My comic is fit for purpose because it's A4 and reads like a book. It is saved as a comic life 3 to be edited and 300 dpi pdf so it is high resolution so the comic can be printed and a 72 dpi for online use, so it can be printed and be sent to the children to read.

I think the client will like this comic because I have created a character that is interesting and fun and a comic that is really interesting for children 5-9 that teaches them to go outside and have an adventure. My character would be liked by children because he is fun and colourful and goes on an adventure. The client would like the character because the children would like him because he has bright colours so it keeps the child's eye on the comic so they read the whole story and are persuaded to go on an outside adventure which is what the client wants the aim of the comic.

My character is unique. It is not a cuddly animal or child which are what characters are in most comics. Instead I have created a different and interesting character made of shaped so they'll read the comic. The Comic was effective for the client because it tells a story to persuade children to go outside and have an adventure. The backgrounds are bright colours and different locations so it keeps the child's eye on the comic so they read the whole story and are persuaded to go on an outside adventure which is what the client wants the aim of the comic.

My comic is unique. It is not a usual story which is what comics are in most comics. Instead I have created a story that is about a child that has an outside adventure and finds a monkey alien and the client will like this because it'll keep the children interested and make them want to go playing outside.

- **Recommended areas for improvement and further development**

To improve the character I could give him different faces and body positions e.g. happy and leg out when he's kicking the football so that the comic looks more natural. My character could be improved by changing the colour of the clothes and face and hair because it makes it stand out too much this will make it fit for purpose because it would be colourful which fulfills the age category.

To improve the comic I could put more characters in the story because this would make the comic more interesting for the children and would be more likely to read it and have an adventure. It could be improved by adding more to the adventure by adding a twist to the story and having him in bed and realising it was all a dream. To improve the comic I could add colour to the speech bubble to make it more vibrant, engaging and adds emotion. I could have added more people like Sam's friends rather than being alone making it so some more kids can be in the comic.

To develop this comic further to start this comic again I would make his friend come with him instead because this would make the comic more interesting for the children and would be more likely to read it and have an adventure.. Another thing I would develop is how many pages I would have to put more pages to add a twist to the story of it being a dream. The last thing I would develop is the overall location of it and change the environment where it's placed because it would look better in a rural area like a forest or by a lake.

# BTEC Tech Award in Music Practice

## Grade 4 (Pass)

### Task 1 – Styles portfolio

#### Style 1 (world music) Traditional Western African Drumming

#### Sonic features of African drumming

##### Production

African drumming is passed down by oral tradition which means instead of writing the music down recording it. So parents will teach it to children who grow up and teach it to their children and so on.

#### Sonic features of African drumming

##### Instrumentation

Instrumentation from African are- sheker, balafon, talking drum, voice Dunun Djembé. A Dunun is a Mandinka bass drum often played in a set of three different sizes, each with a bell to accompany the djembe. The one that played by the master drummer is djembe

##### Timbre

The drum sound depends how hard or light you hit the djembe and where you hit it.

#### Compositional features of African drumming

##### Rhythm

In Africa they use Rhythm. This is a pattern of sound in time to a pulse.

A pulse is a steady beat

African music used Rhythm Cycle – a rhythm that repeats continuously

##### Texture

Texture in African drumming Polyrhythm this more than one rhythm played at the same time you hear this after master drummer plays the second signal and makes everyone play different beats

Sometimes in African music the texture can be in Unison this is everyone playing or singing the same thing at the same time and this can be heard in Mamady Keita - Djole

##### Structure

African drumming groups have a master drummer who is someone that has technical mastery of the instrument and leads the

group, cues in / out rhythm cycles and plays the signal. This is how he structures the piece by playing different signals that require a different response from the group like call and response. This is where a soloist sings or plays a phrase which is then responded to by a larger group of singers / players. This can be heard in Lailaiko

The Signal (an example of call & response) this is a musical phrase, usually a rhythm, that sets the tempo and indicates to other players when to start and stop playing.

##### Tonality

simple diatonic

This means the melody is based upon any scale of five tones and two semitones produced by playing the white keys of a keyboard instrument, esp the natural major or minor scales forming the basis of the key system in Western music.

##### Melody

Most African melodies are based on a "limited number of pitches" - four, five, six or seven note SCALES and are normally short and simple, often expanded by REPETITION and IMPROVISATION you can hear in stinela by ubuho bethu <https://open.spotify.com/track/0VZSbY9QIN9ITyR01vEbZ0> and diphala by ubuho bethu <https://open.spotify.com/track/123z9yYo46c29tmY24hWQNV>

# BTEC Tech Award in Music Practice

## Grade 4 (Pass)

### Sonic Features

#### Production

Gamelan music is sacred. the word 'Gamel' means to hammer. in Gamelan music and culture Musicians take off shoes before entering a room of Gamelan instruments  
 Gamelan instruments are treated as sacred in Indonesia Low pitch instruments sound less often, high pitch instruments sound more frequently Gamelan music is sometimes used to accompany Wayang shadow puppet shows

#### Texture

gamelan is polyphonic or polyrhythmic. polyphonic mean Many melodies played simultaneously

#### Instrumentation

the Gong Ageng starts the cycle



the role of the Saron is To play frequently and the main melody of the piece



the role of the Kenong is To play less frequently and to accompany the melody, providing a bass line



the role of the kendhang is To lead the group and to set the tempo and control the dynamics To cue in and out rhythm cycles To provide rhythm and keep the group in time



Style 2  
(Gamelan)

### Musical Examples - Lancaran 'Kandhang Bubrah' Slendro Manyura

Lancaran 'Kandhang Bubrah' Slendro Manyura								
Beats	1	2	3	4	5	6	7	8
Gong Ageng & Kempul								
S Kethuk								
Kendhang								
Kenong	<b>6</b>		<b>3</b>		<b>3</b>		<b>1</b>	
Saron	6 6	2 5	3 3	2 5	3 3	2 2	1 1	2 2

the Gong Ageng starts the cycle. That is the blue circle at the start. The kempul accents beats 3,6 and 8.

The second line is the kethuk off the beat that why in the second half the box.

Kendhang is the third line and plays a steady beat."

the role of the Kenong is To play less frequently and to accompany the melody, providing a bass line

The last line is the saron. This uses the pentatonic scale ( 5 notes) no 4s or 7s



# BTEC Tech Award in Music Practice

## Grade 4 (Pass)

### Style 3

#### (Rock N Roll)

Rock n' roll originated from blue music, based on the 12 bar blues chord sequence, heard in songs such as Great Balls of fire by Jerry Lee Lewis.

Some songs might substitute one chord for another or add additional chords. In the song Long Tall Sally by Little Richard the 2nd chord which should be chord 1 for is swapped for chord IV.

Rock N roll is different from Blues in that it is louder, faster and more energetic, singing about relationships, holidays, having a good time and being rebellious.

Rock n roll instruments originated from blues instruments which were the guitar and harmonica. These were common in blues music because they were cheap and affordable. As time went on, instruments became more advanced. Musicians started to use electronic instruments such as electric guitar and bass which allowed the music to be more Energetic and louder. The instruments common in 1950s Rock N Roll were drumkit, saxophones and electric instruments.



The texture of Rock n' Roll music is mostly Melody dominated homophony. This is where one instrument / singer plays a melody over a chord sequence.

Most Rock n' Roll songs will have an instrumental solo section.

Many Rock n' Roll songs make use of stop time. This is where one Instrument plays whilst the rest of the band stop playing allowing the solo to stand out.

Rock and roll music uses improvisation. This is where a musician makes up a melody spontaneously.

techniques used in rock and roll include guitar slides or glissando on the piano also bending on guitar bends, pushing the string to the next note. Hammer on and pull offs are used, this is where a guitarist will play a string and hammer that finger onto another fret.

Jerry Lee Lewis in great Balls of Fire on the piano solo will play more than one key at the same time turns and glissando between keys.

# BTEC Tech Award in Music Practice

## Grade 4 (Pass)

### Style 4

### (EDM)

#### Production

computers are described as the main instrument for creating EDM

digital audio workstation DAWs cover every part of the music-making process from recording digital audio through creating beats and melodies with virtual instruments all the way to adding effects to make everything sound great and perfecting your final mix of all the tracks.

#### Structure

The structure in EDM is designed to keep the energy flowing in a dynamic way, with high peaks and deep valleys. They do this by starting with a Mix in: the opening section where the DJ mixes the previous track into the new one - usually drums or percussion.

Main section: Main melody, developed idea.

Breakdown / build up: the sounds drop out so as to create tension when they build up again.

Mix out: the closing section where the DJ starts to mix in the next track.

### Sonic features

#### Instrumentation

Electronic dance music used drum machine can play back drum sounds in patterns and make your own

A synthesiser is an instrument that can play a huge range of sounds. It is usually operated with a keyboard.

Samples and loops

Recording sounds and then playing them back is called sampling. When samples are played over and over, it's called looping

Effects like reverb that gives vocals a sense of space, is used to shape and change sounds



### Compositional features

#### Melody

To compliment the driving nature of the drums and bass, melodies are often developed with repetition to catch the listeners ear and manage the energy of the track.

how deep is your love by calvin harris.

Summer by calvin harris are examples of using a catchy repetitive melody.

#### Harmony

when two or more notes are played together to create a richer sound. These are used a lot on the vocals and synths.

# BTEC Tech Award in Music Practice

## Grade 4 (Pass)

### Task 2 – Explore techniques used to create music products

#### My performance product (style of music)



My role in the group was a bass player, playing the walking bass line.

I played the bassline to fit in time with the 12 bar blues. I play the note of each chord and then walk up the fret board and back again and repeat this pattern on each chord. On bars 9 and 10 I play the first note and stop because this is stop time.

I had to learn the bass guitar as I had never played it before. I had to change strings and move between frets quickly because rock n roll is fast.

This is me

Next i added a chord sequence using the MIDI keyboard and changed it to a synth sound. I used triads. i recorded these in step time (one at a time) and then merged them so I can loop the whole sequence.



Next i created my bassline. This is the lowest pitch one note at a time using of the chord sequence to input the note i duplicated the chord sequence and deleting 2/3 notes of the triad and lowing the pitch -12 semitones



# BTEC Tech Award in Performing Arts

## Pass

### Component 1 - Exploring the Performing Arts

#### Shrek the Musical

Shrek the musical was performed at the Broadway Theatre in New York City

The show opened in December 14th 2008 and closed on January 3rd 2010

The main actors of Shrek the musical are Brian d'Arcy James who played Shrek, Sutton Foster who played Princess Fiona, Christopher Sieber as Lord Farquaad, Daniel Breaker as Donkey and finally John Tartaglia as Pinocchio

Brian d'Arcy James is a well known American actor and musician, he is recognised for his extensive career on Broadway, including Tony Award nominated roles in Shrek the musical, The sweet smell of success and Into the woods

Sutton Foster is a two-time Tony Award-winning actress who was a finalist on the reality competition show Star Search as a teenager and appeared in The Mickey Mouse Club auditions with JC Chasez. She is known for her roles in the Broadway show Thoroughly Modern Millie, the TV Land series Younger, and her musical performances and albums. Foster also enjoys crafting, has an adopted daughter, and holds honorary doctorates from Ball State University and Boston Conservatory at Berklee.

Daniel Breaker is a Tony-nominated Broadway actor and singer-songwriter known for originating Donkey in Shrek the Musical and portraying Aaron Burr in Hamilton, and for his role as "Youth" in the Broadway musical Passing Strange. He is a talented home chef and mixologist, and an army brat who found solace in theater growing up. He graduated from The Juilliard School, and his background includes a strong focus on Shakespearean theater before he diversified into musicals and other roles.

#### Creative intentions

*The musical aims to 'combine the appeal of the original story with family-friendly entertainment, a satirical wit for adults, and classic musical storytelling elements.'*

The makers of Shrek, David Lindsay and Jeanine Tesori and directors is Jason Moore , First of all they wanted to create an entertaining show for the audience. This is obviously important because if the show was boring or not engaging enough then it might not make enough money as they was hoping to make because they wouldn't get the audience to react positively. In my opinion the target audience for Shrek the Musical would be for 5 year olds upwards, This is because younger children watching the show would be frightened and might not understand the storyline as much as much but older children will. I also think that the musical has a fanbase based around the original movie and would want to see this show for the nostalgia. The makers need to ensure that they make the show appeal to this audience.

The musical centers on adopting a loved franchise for the theatre while exploring the main theme of acceptance. This theme can be seen throughout the show for example the fairy tale characters are not accepted in Duloc because Lord Farquaad sees them as 'freaks'. Also acceptance can be seen in the character of Shrek who is not accepted by others in his world. He is secretly upset and embarrassed by this but has made being proud of being a reject his personality. Shrek accepts donkey to be his friend to be his friend along the journey to Duloc, The character of Donkey is the only person in the show that doesn't think Shrek is a big scary monster and accepts him for who he is. The theme can also be seen through the character of Princess Fiona, for example when she accepts Lord Farquaad's proposal even though that we can clearly see in the scene that she doesn't want to marry him. At the end Fiona is revealed as an ogre and after Shrek shows is love for her she accepts him and her true self.

# BTEC Tech Award in Performing Arts

## Pass

### Key Features



Brian D'Arcy getting prosthetic makeup applied as Shrek



Pinocchio's special effects nose grows live on stage.



Some key features of the show are musical traditions, this is things like the use of songs to show how the character feel as well as big dancing and singing numbers. For example the song freak flag. This song is used to explain how the fairy tale creatures final accept their uniqueness

Another key feature is visual style, this is seen through the colourful and bright set and costumes, special effects, the make up prosthetics and puppetry. For example, the Dragon that appears at the end of the show and eats Lord Farquaad.

And the last key feature is use of comedy in the show. This a fun dialogue between the characters, lots of jokes and funny moments. Some of the characters look funny too. For example in the musical when Shrek and Fiona was farting on each other a the end of the song " i got you beat ". Another example is when Farquaad is dancing with his micro legs

### Responsibilities and skills - During Rehearsals

During rehearsals a responsibility Brian would have to do is arrive on time to every rehearsal. This is important because if Brian had to be in rehearsals for 8 am and went out drinking the night before and he didn't turn up on time he would probably not get to keep his role. To fulfill this responsibility they would have to need to use discipline and punctuality.

Another responsibility Brian would have to do in rehearsals is participate in full cast rehearsals for the show. This is important because if he doesn't engage and focus, he might forget what to do or say while on stage and mess up the whole play. To fulfill this responsibility he would need to use focus and acting skills such as body language and tone of voice.

Another responsibility he would have would be to listen to the directors feedback and work hard to improve on weak areas of their performance. This is important because when Brian goes into rehearsals and messes up on a scene and the director gives him advice on how to improve then Brian doesn't listen to him he could mess up when it comes to performing on stage then it will look bad because Brian would look lost and not knowing what to do. To do this he would need to be resilient and show independence in his preparation.

# BTEC Tech Award in Performing Arts

## Pass

### The role of a director/ before rehearsals begin

A directors role is to be in charge of the production from start to finish.

The directors of the shrek musical is Jason Moore.

One responsibility that Jason Moore would have to do is to develop a creative vision so he can imagine the set of the show in his head to see how he wants the show to look. This is important because Jason needs a idea before he makes the set for the show. To fulfill this responsibility Jason would need to have a good imagination skill and communication skills.

Another responsibility Jason moore would have to do is hire the performers. Jason need to do this so he can find the right actors for the roles of the characters in the show. This is important because Jason could do auditions for people to get a role and there could only be one good audition for the role of the character that suits his vision. To fulfill this responsibility Jason would need to use communication skills and leadership skills

### During the rehearsal period

One responsibility that Tim would need to do is rehearse with individual performers. This is important because musical directors might work separately with performers on their solo songs or duets. To fulfill this responsibility Tim would need to use leadership skills and teamwork skills

Another responsibility that Tim would have to do is practise the musical accompaniment with the orchestra. This is important because as well as playing with the singers the musical directors will rehearse the accompanying music with the orchestra ensuring that this is correct and ready for a live show. To fulfill this responsibility Tim would need to use teamwork skills and communication skills.



# RE

## Grade 4

its never acceptable for religious  
believers to fight in a war 12 marks

I do

may disagree with this quote  
as sometimes war can  
be described as just this  
can be seen in the bible quote  
the time for war and a  
time for peace this quote  
suggests that war has a time  
therefore just as find the approach and  
the view point spectrum

I think that this is

a strong argument because the  
bible suggests that there are times  
where war is needed over peace

Some might agree with this as  
Jesus preaches peace this can  
be supported by the bible verse  
love your enemies and pray those  
who persecute you the suggestion  
that it is never right to fight  
war. pray and love your  
enemies **I** think this is weak  
because persecution suggests  
that the believer

2 religious beliefs about  
the aims of punishment  
refer to religion's  
Easter in religion's  
W is if you steal and  
W or if you get your hands  
W will get get out of this  
W is because show in law  
W in Islam. For return  
W in Christianity if you  
W steal or do crime Christians  
W say state to not hurt them  
W differently this is suggested  
W by the quote "love thy  
W neighbor"

# Spanish

**4.3 - Who, who...? Que ves?**

**Objectives:**

3 Television and film. Frequency of frequency. The end of the regular verbs, plus irregular.

seems to me **Expansive** really like

**Rocio:** Prefiero ver las películas en casa, porque tengo una televisión muy grande. El cine me parece muy caro.

**Entre:** mis preferencias están las películas del oeste, las de dibujos animados y las musicales, aunque me gusta todo tipo de películas. La semana pasada vi con mi primo Luis película en otro idioma fácilmente a **quiero**

**A: R** **B: P** **C: P**

**Parcial:** Me gusta un montón ir al cine solo. **All** el ambiente es genial porque es tranquilo, cómodo y la pantalla es grande. Ayer vi una película romántica en el cine y no estuvo nada mal. Además, me interesan las películas...

**Hint:** **seem** **system** **future**

Martes 2 de diciembre 2025

4.2 - Mr tiempo es oro

**Relevant**

1 The **preterite tense** is used to describe an action that has been completed

2 Quiero ver una película en otro idioma, pero es difícil leer

I want to watch movies in another language but it is difficult to read in Spanish

3 **Al** cine

Hola **sobre el** el cine the **de** cine = to **de** cine = to

Voy a hablar **del** cine

Prefiero ver las películas en **el** cine, porque es muy grande. Me gusta un montón **de** la **animación** **genial** porque **son** muy deliciosas. La semana pasada **vi** **de** **Zootopia** **2** y una aventura de Disney. Mi opinión **es** **Zootopia** y el cine es impresionante **es** maravilloso. Mi parte favorita **fue** **el** Tobogan de agua porque **debo** admitir que **fascinate**. La próxima película **ver** **quiero** **es** Five Nights at Freddy's **2** porque **es** rápido **es** **menton** **mi** **vide**

# Cambridge National - Sports Studies

## Sport and the media

### The positive relationship between the media and sport

Both the media and sports share a positive relationship and in turn this can have positive effects. For example, participation rates, people see the sport on a social platform and they want to participate sometimes or try it. It creates role models when people see the players winning and playing so well, they get inspired by them and take them as role models. Media can easily promote a less known sport through platforms like Instagram, YouTube etc. where more and more people would see it and would participate if interested. People would tell their friends, family to play with them or tell them how good the sport is which might get them to try it themselves. The media would share information about sports initiatives which would get others to participate. People who like the sport would share positive messages which would persuade others to try the sport and maybe play it on a regular basis. It breaks down barriers like it could tell disabled people that they can participate as well by sharing information about it on social media. It promotes a healthy active lifestyle as well when people see the players who keep their health in check and focus on their fitness. Furthermore, any rule changes or any updates could be shared through these platforms for the fans to know.

The relationship between the media and sport can be broken down into two key areas: participation and raising the profile of a sport.

### Increased number of participants in the sport and frequency of participation

From televised tournaments to digital streaming, media coverage profoundly influences participation rate and inspires deeper engagement with sports like golf.

Listening/hearing/seeing a sport bring a sport to people who do not normally see it would increase the participation, people could watch it on social platforms, see it in the newspaper, hear about it on the radio etc. Which would get them to try it at least and see if they like it or not. By seeing it on social platforms, TV, and reading about it in the newspaper it will increase awareness of the sport, it would encourage them to participate. The media allows them to search up local clubs so they can find the nearest club and participate in the sport. Trentham Golf Club has a website <https://www.trenthamgolf.org/> which has every information about the club and has updates about the club for local people. When people see the sport and see the players doing well in it and winning, they will get involved. Big competitions are shown across all media platforms so the more people see it the more people would try it.

### Increases participation at grassroots levels

The media can positively influence and inspire participation in local initiatives and grassroots groups through advertisement in local newspapers has an amateur focus so every person who watches golf or has seen people playing golf could have a go. People often see the advertisements around local newspapers about coaches and players playing and doing well

in golf which would persuade people to try the sport. There are short clips of achievements or wins of a specific player or a golf club which people would see and would start training to be better and do well in the sport. The same platforms could be used to tell people the rules and age requirements for this specific sport. My golf club, Trentham, has a special team for juniors who train them on how to play the sport. Digital media makes it easier to find local clubs around your area where you can look at the memberships, rules, information about the club and you could potentially register on the websites as well.

### Role models and influencers

The media including the news and social media are everywhere, we see everything a sports star does, which makes them powerful examples to spectators and fans of golf. For example a really good role model for golf is Tiger Woods, he donates a lot of his money to charity. Role models and influencers make golf seem more appealing because they show that you can be super fit if you try it or practise and they make it seem less boring. They also make the sport seem accessible to all. They share the experience on social platforms and encourage the fans to participate and they will share how easy it is to join a club, go to a local club such as Trentham Golf Club. Influencers share their personal journey on their social platforms which often inspires a lot of people. They show their skills which makes others want to be as good as them. They show us how they have overcome barriers and how they achieved what they have. Different forms of media such as print media, broadcast media and digital media support role models to increase participation through their platform on which people go and read about their role models/influencers.

### Help to remove barriers

Putting more posters about the location and information about local clubs would tell people who thought there are no clubs around their area where the local clubs are so people could actually go and participate. We could add the prices to participate or practise in these clubs on the posters so the people who thought it was too expensive could get an idea of the actual price so they could go and participate in these clubs. People often think they can't play because of poverty, disability etc. which is not true, there are many examples of people who had a lot of things stopping them but they were still successful.



William Ben Hogan was an American professional golfer who is considered to be one of the greatest players in the history of the game. In 1949, Hogan was struck in a head-on collision with a bus while driving home from a tournament. He sustained serious injuries, but recovered and returned to professional golf, winning the 1950 US Open in what became known as the miracle at Merion. Hogan achieved the

Triple Crown in 1953, with victories at the Masters Tournament, the U.S. Open and the Open Championship. In total, he won 64 professional tournaments recognized as PGA Tour events.

### Raising sports profile

Through sports, media is a positive way to raise profiles of different sports. Profiles help to share messages, break barriers to encourage everybody to participate and promote health. Golf is viewed by 16% of sports fans so if more people are watching the sports, more people would be aware of the sport and would participate in it. Golf became more popular in the late 19th century due to its rapid expansion in England and the United States.

### Education

Sports like handball, climbing, pickleball etc. are not on tv but can be seen through digital media. The more people see it the more people would want to participate in the sport or at least practise it. Watching golf on digital media is usually free but some websites do require a subscription to watch a sport live. The more platform the sport is on, the more people it will reach and the more people would want to participate. If more people start participating they will get health benefits as well. The media also help to educate people about golf, as I can go onto YouTube and watch a video tutorial on the rules of golf, I can also watch on YouTube about different techniques for putting or swings, this can also be found in books and on websites, therefore the media provides a great insight into educating fans about golf, therefore participants at my club could get better by using the different forms of media. Fans and players at Trentham are lucky enough to be able to use the media such as YouTube to even educate themselves on the different holes before they play, here is the link to this [1st Hole Flyover](#)

### Rules, technology, variations of sport

Thanks to continuous media development, spectators now have significantly more options for engaging with golf. Different types of media have supported new rules of my sport, it puts viewers directly in the action, it shows different angles and gives us a whole another perspective. You can access the new rules of golf on digital media.

You can choose who and what you want to watch. This helps the fans better understand golf. The media also helps to increase understanding of technological advancements e.g. I could watch the following link and find lots of information out and if they would improve my game

<https://www.youtube.com/watch?v=fVJpFqnnZCY>

### The golden triangle and golf

In the golden triangle:

The golden triangle illustrates the interrelation among sports, sponsorship, and media. One thing depends on the other. E.g., without media coverage, there will be less sports coverage, and without sports coverage, the bigger sponsorship will not sponsor the sports and therefore the organisers of the sports will not get sufficient funds to manage the sport. Sports like Golf Provides entertainment with sports

Benefits from sponsorship and therefore Gets enormous international coverage by media and therefore increased popularity and players. My golf club, Trentham, doesn't have any sponsors but it does support local charities like Dougie Mac. The club only uses funds it gets from the fundraisers.

### How does the media works with Golf to promote a healthy lifestyle

The media works with the golf industry through targeted campaigns and content to actively promote the sport as a means to achieve a healthy lifestyle, emphasising its physical, mental, and social benefits. Golf organisations, such as The R&A and the World Golf Foundation, join up with public health experts and media agencies to create evidence-based campaigns to run. These campaigns utilise various forms of media to distribute findings such as the fact that golfers typically live five years longer than non-golfers, and the sport can prevent many chronic diseases. One such campaign is the "Golf is Good" campaign, which used animated videos to tell stories of people benefiting from the sport. Social media platforms like YouTube, Instagram, TikTok, and Facebook are some of the key channels to reach a more varied and younger audience. Golf influencers and content creators also play important roles in breaking down the stigma of the game-for instance, perceptions that golf is boring or only reserved for older people-showing how fun, approachable, and positive the game can be.

### sports stars a conclusion on the positives

The media helps influence a lot of people as when they see people like Tiger Woods, Rory McIlroy etc. playing on the different types of media it persuades them to go and participate in the sport so they can play like their favourite players. Everything spreads on media rapidly and everything's quite easy to access so people watch the news of the live games of their favourite sports online and they don't have to physically go watch the game. The games are more detailed in the media as well because there's a lot of cameras showing different views of the game so people can watch it better. In conclusion, the media has attracted thousands if not millions of people to play the sport they love and made everything much easier for them.

# Cambridge National - Sports Studies

## **Task 2B - 10,000 pounds Lottery grant**

If my club was rewarded 10,000 pounds to promote themselves on a type of media they should advertise on the digital media as it will be accessible to the younger and most of the older generation, they should put banners across the city because golf is not very popular even around the golf clubs because the people don't know it exists and is near them, they should get influencers to do a promotion for them advertising in a fun, exciting way so it catches the younger generation's attention. They should definitely improve their website which seems quite dated because when the people want information related to the club the first thing they look for is the website which should be spot on for people to actually have a better overview on the club. They should start streaming their games live and should get some of the popular players to come and play there to promote the club. They should hire a professional photographer or a videographer to create high quality pictures and videos and put that on the website. They should film a short ad (under 60 seconds) including all the members i.e women children elders etc. showing the social side of the club. The website should be optimised for all the devices i.e mobile phones, computers etc. so people don't just get frustrated and leave as soon as they open the site. Put QR codes on the tee boxes or the clubhouse which links to a short pro-tip which would make the users feel like the club is high tech and would enhance the experience. Create a beginners guide and give it in exchange for an email address. Use a small portion of the money and invest it in a feedback campaign which would give people an idea of what the experience is like. Upload a high quality drone footage on their youtube and other social media platforms so the people who are thinking to join know the course layout. They should also put a fixed camera on a signature hole so golfers can download the clips of their shots.