



Co-op Academy
Stoke-on-Trent

Year 9 Option Workbook 2026

Booklet:

B

9X2, 9Y2, 9X3,
9Y3, 9X4, 9Y4, 9X5

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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

IT

Music

Performing Arts

RE

Spanish

Sport

Art & Design

GCSE Art and Design FINE ART

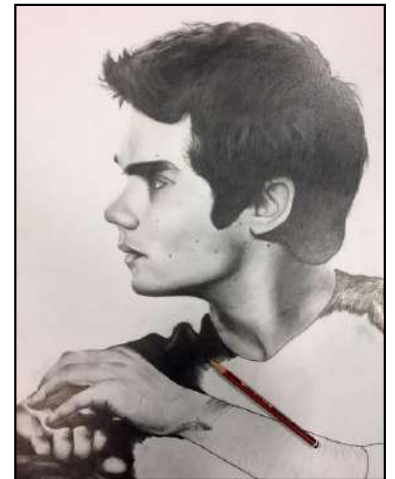
Art & Design is suitable for a wide variety of students. Including gifted artists who wish to pursue a career in creative industries, those wishing to balance academic and practical subjects and those who simply enjoy Art & Design and are willing to work hard.

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:

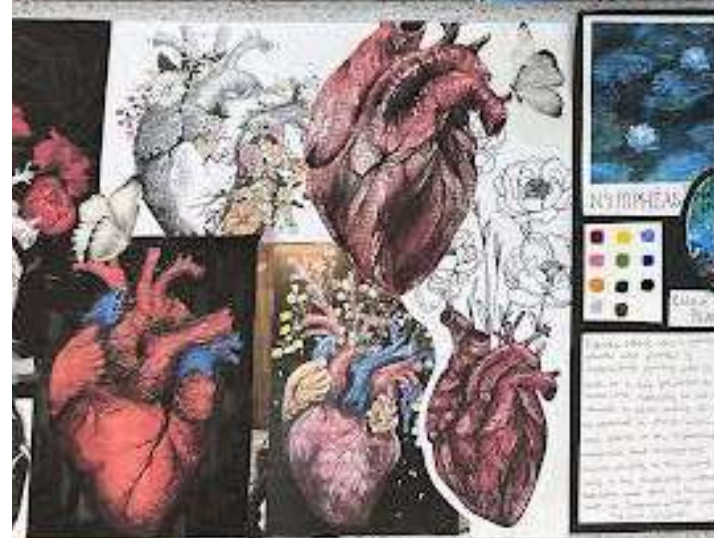
Art & Design GCSE provides the perfect springboard for students to progress to A-Level and University.

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 work. There are hundreds of special-isms but it is competitive and you need to work hard.

- Animator
- Architect
- Art Therapist
- Blacksmith
- Ceramics
- Cartoon/Comic art
- Community arts
- 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 5



Art & Design - Grade 5



Business Studies - 4/9 marks

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.

(9)

When considering the options, it may be better to reduce the prices of memberships. This is because if there are more gyms with lower costs for customers, to be able to use the gym, the customers will most likely end up choosing the gym with lower charging fees, and therefore PFC will lose their customers and their means of making a profit.

Another reason it would be better to reduce membership costs is because of employment rates. If employment rates are low, then people will not have enough cash to spend on a gym membership and will go for the cheaper option of the two, and therefore if PFC continues to charge £39 per month for a membership, people may not want memberships because of the income rate due to employment rate.

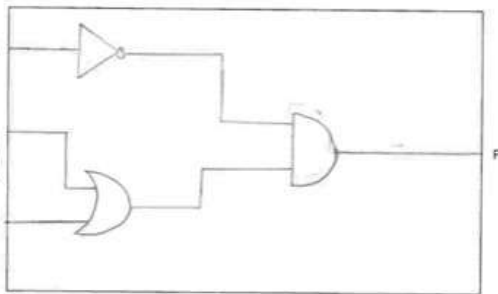
In conclusion, I believe it would be better to reduce the cost of memberships as if consumer income is low or there are cheaper competitors around, then PFC will lose customers & in turn lose profit as well.

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 $P = \text{NOT } A \text{ AND } (B \text{ OR } C)$



BOOK 204

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 and 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	deleted	encryption	key	lock
quantity	separate	used	understood	

encryption software changes data using a lock key. If the changed data is intercepted, it cannot be deleted. This software does not stop the data from being intercepted.

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 accessed in storage and the free space is moved together. This does not provide more storage space on the disk, instead it makes the speed of the data faster because the read head does not have to move as far to access the next part of the file.

BOOK 204

Turn over

4* A computer programmer has developed a computer game that they want to release for users to download over the internet. The programmer needs to decide whether to release the game as open source or proprietary software.

Discuss the features, benefits and drawbacks of each type of licence for this program and make a recommendation to the programmer.

You should include the following in your answer:

- features of each licence
- legal and ethical issues of each licence
- benefits and drawbacks of each licence

the feature of open source is it is to people, so you will have many people playing best that will do lots of copy right issues copyright issue the drawback is that you will not have as much money if you proprietary software.

the feature of proprietary software it is not people so you need to pay for it and the copyright issue, are more harsh the drawback is that you may not have as much people as if you do it open source.

(d) Describe how to convert a 2-digit hexadecimal number into denary.

Use an example in your answer.

Bin	Hex	Hex	den
1 = 0001	10 = A	2 = 10	2
2 = 10	11 = B		
3 = 11	12 = C		
4 = 100			
5 = 101			
6 = 110			
7 = 111			

(e) Add these two 8-bit binary numbers using binary addition.

Show your working out.

$$\begin{array}{r}
 01101011 \\
 + 00001111 \\
 \hline
 01111010
 \end{array}$$

2 An airport has computers that are connected together on a Local Area Network (LAN).

(a) Each computer has an IP address and a MAC address.

(i) Give one valid example of an IPv4 address and one valid example of an IPv6 address.

IPv4 local with mens, no man else
 has the Network
 IPv6 more spars?

BOOK 204

Turn over

Design & Technology - Grade 5

Explore	Design Thinking	Design Communication	Final Prototype	Evaluate	Total	Grade
					/100	
13	14	9	12	13	59	5

Context Analysis

Evaluation of page:
I have found that there is a wider variety of problems with waste and out of the 3 as it is the most important and has the highest impact negatively on the earth.

Primary User Needs / Client Interview

PRIMARY USER QUESTIONS:

What is your name? Nazam

- How old are you? 16
- Do you sleep? Yes
- How often do you throw away items? **everyday**

Because my primary user says they throw things away every day, my product must be **usable every single day**

- How often do you reuse items? **sometimes**
- Do you reuse single use products? **Not often**

I need to make my product reduce single use product waste

- Do you buy individual products for each task? **yes**
- Should I make my product reusable, biodegradable, recyclable or both or all? **Reusable since it will last longer**

I think some sort of table top appliance will be good since it is reusable

- How big should make my product? **Medium** it should fit in most places like on tables, etc
- Do you drink bottled water? **Yes**

It should fit in most places like on tables etc.

- How do you feel about water waste? **It is vital for life**
- Do you think water is often wasted? **Yes**
- Do you think tap water is clean? **no, I heard it has some chlorine in it and other chemicals and it tastes bad**

My product should make people drink tap water by cleaning it and removing harmful substances to taste better.

- What's a problem of bottled water? **Lots of wasted plastic**
- What's another issue of water? **In hotter and poorer areas some people don't have access to water and have to drink water from lakes which may contain sediment and bacteria**

My product should be able to clean dirty water straight from lakes in some way.

Summary:
Nazam seems to be the average unemployed teenager who often drink bottled water as he agrees that that tap water has a somewhat bad taste to it as well as rumors that it contains small amounts of unhealthy substances. He is also aware that bottled water is bad as it means more packaging is disposed of as more people drink from plastic bottles.

Why target the consumer?
-Consumers often are uneducated in how to properly discard items correctly
-Proper facilities are often not accessible
-Some items may not be able to be discarded in certain ways
-people may be unaware when it is necessary to discard certain items.
-some may be unaware of the consequences that the items they use have on the environment.

Evaluation of page:
This research shows how many people throw away items after use. It also reveals how so many people purchase plastic water bottles due to them not liking the taste or the health complications from tap water.

Context Investigation/ Initial Research

Reducing waste-Problems shortlist

- CO2 emissions
- Single use packaging
- Plastics killing ocean
- Landfills filling up
- Materials being used faster than being produced
- materials getting rarer due to their lessening
- world hunger
- food waste

non renewable fuels depleting
people not recycling leading to waste on the street

Materials waste:
Despite littering being against the law and the government proving specific facilities for items that can be recycled to be thrown into, still lots of waste products are polluting the streets and even carried to the ocean, this has led to the death of many animals and the waste of otherwise useful materials.

SPACE:
Many landfills are taking up space and holding materials that are not being used but could be useful to us

Emissions:
During manufacture many companies require some form of heating or moulding of a product, this means they use a lot of energy to supply the heat and electricity.
Often these factories use multiple generators to supply electricity and the use of other chemical energy methods to heat or mould a product. This use of energy needs a way to release waste products that are now unusable and are a result of using the energy, and is released as dangerous gases into the atmosphere out of chimneys.

By Generators: How does it work? (with 7 Industrial Applications)

Many people do not have access to clean drinking water or may just have a water system with poor hygiene due to sewage issues, contaminants or their local area. Water is often wasted by people despite being a very important part of their life.

Cons of single use packaging:
Many factories are producing packaging for products which not only make waste when thrown away but also release emissions and pollute the environment just from being manufactured.

Littering and ocean waste:
Plastic in the ocean is entangling and trapping sea creatures as well as being ingested by them leading to their demise and a dip on the fish population.

Evaluation of page:
I have found that much of the worlds waste is accumulated in the ocean, especially due to plastic packaging. The most prominent being dirty water bottles.

Stakeholder/ Product Requirements

Stakeholder question results, Majority answered survey as follows:

What sector of products produces the most waste? **Food**

Do you drink bottled water? **yes**

Do you waste water? **yes**

Would you want cleaner tap water? **Yes**

How big would you want a water filter? **Table top size (medium)**

What other qualities should a product that filters water have? **Safe to use**

Does tap water taste bad? **Yes**

Do you think it is contaminated in some way? **Yes**

Summary:
I think that most people only use tap water many people only bottled which contributes to plastic waste. Because most people don't buy tap or filter the taste. My friend that lives in a rural area, he says to use clean water of pollution or chemicals to filter his water and health. The water is dirty because some people do not have access to clean tap water reducing the number of people who use a filter to purify water.

My requirements ensure an eco friendly production, safe to use, convenient, unobtrusive in size, already owned and water resistant and a replaceable filter. With these requirements, the production efficiency, portable drinking tap water and reduce bottled water use.

Requirements	Made from non environmental damaging	Is visually appealing	easy to use	Can filter clean water	Safe to use	Cheap to produce	Fits on tables and most small spaces	Simple design for manufacturing while being functional	Lightweight
Can use recycled materials or even renewable materials	Smooth and curved edges	Blocky and thick design makes a rigid structure	Yes with the correct methods, has enough space to contain filtering mechanisms	Smooth edges decrease risk	Simple design can utilize very old CNC manufacturing techniques	Medium size	Yes, no complicated shapes	is it	

Evaluation of page:
It seems the main things to focus on when making my product are portability, price, safety, aesthetic and functionality or how well it leads to the stakeholder requirements.

Potential Stakeholders & Design Brief

Design brief:
My product is targeted to anyone who drinks water but mainly those who prefer bottled water rather than tap water as those people often believe tap water is not entirely healthy or drinkable. Some even simply don't like the taste of tap water or the chemicals inside.

Problems:
Many people opt not to drink tap water due to the taste or the distrust in the purity of tap water. Not only that but people in other countries don't even have access to even tap water, which leaves them to travel miles in search for river water or lake water which is often contaminated.

Plastic waste:
Not only is this a waste of water, but since more water is packaged leading to more plastic bottles being produced and thrown away causing pollution.

Primary user:
[A person that drinks water]
Nazam

Stakeholders include:
Investors
Small businesses
manufacturers
delivery services,
Factories.

Benefits:
Targets more people meaning it spreads further out and is relevant to everyone. This increases efficiency of decreasing pollution.

Water is essential to keep us all alive, yet bucket loads are wasted by homes and businesses every day. Leaks and inefficient use mean that globally about 30% of water is wasted - the equivalent of around 9.5 trillion litres. That's enough water to fill somewhere in the region of 64 billion bathtubs.

Since it is targeted towards the consumer and we want households to use our product, it should be:
-Cheap
-Easy to use
-Easily disposed
-Environmentally safe
-Biodegradable
-recyclable

SPECIFIC BRIEF IDEA:
I think creating a way to purify and clean water to make it potable. I might do this using a filter, a boiler or maybe some disinfectant chemicals. I'm gonna make it small to medium size and make it a kitchen table / countertop appliance. I will attempt to remove the chlorine from tap water and might even go as far to filter out sediment for those without access to running water.

stakeholder motives for interest may include:
-Cheaper production due to less materials required saving energy and money.
-Company may gain public's trust increasing sales.
-Companies can remain future proof as laws begin turning towards eco friendly production techniques

Real problems from people:
I asked my friend Nazam how he feels the current situation on the environment is. He commented on how single use products and packaging should be biodegradable allowing it to break down over time into natural safe substances. He also believes that we should target a broader section of the market to handle waste as a whole and focusing on all areas where waste could impact the environment.

In 2021, the United Kingdom generated over 27.6 million metric tons of waste from households (NH) - an increase of 2.3 percent in comparison to the previous year. England's households accounted for the largest share, at 83.6 percent, or 23.1 million tons. - <https://www.wastebank.com/statistics/131747/household-waste-generation-county-uk/>

Evaluation of page:
I will work towards designing a solution to limiting the number of people using plastic bottles of water.

Investigations of Existing Products

Kitchen water filter CON-TAKES UP SPACE

PRO- LARGE STORAGE SPACE
commercially used therefore tested and efficient, does not require energy/ electricity

PRO- PORTABLE
I could use a filter paper in my device

Filter jug, small and compact and is useable nearly everywhere due to its portability, it filters directly from source

CON- ONLY FILTERS and removes large sediment and leave chemicals and bacteria

PRO- EFFECTIVELY REMOVES MOST HARMFUL THINGS
I will use ion-exchange as it removes everything effectively

PRO- CAN KILL AND PURIFY WATER
I don't use chemicals as it may be unhealthy

Tap water filter, add on to catch sediment and particles before it exits tap, this also only filters and leaves the bad chemicals and taste.

Kettle boils water, can be used to heat up water while killing bacteria CON- USES LOTS OF ENERGY

Reverse osmosis device - uses unique water cleaning method - does not need energy unless it's electric pump

Purifying bottle, medium size, relatively portable with decent capacity and also portable CON- BIG PRO- CLAIMS TO REMOVE SEDIMENT AND KILL BACTERIA

Filter jug, has decent capacity and cleans tap water and is relatively portable.

PRO- BIG FILTER
Filter jugs work by using disposable carbon filters, and as Carbon is porous so the surface area attracts and holds the chlorine. Heavy metals (such as lead and copper) are removed by an ion-exchange system that attracts positively charged metals. <https://water.usgs.gov/>

Chemical cleaner, really needs refilling every so often and has limited capacity CON- potentially also harmful in water

Evaluation of page:
I think it will be best to make my product portable and functional to be able to use while travelling but also at home.

Design & Technology - Grade 5

Existing Product analysis

Aesthetics:
- Very smooth handle and overall body
- The ultra smooth design has both positives and negatives
- Handle hole while it is comfortable, feels awkward at the same time in terms of size and shape however the surface feels good
- Furthermore the entire handle and body is plastic which is not grippy
- Dangerous as it could fall and drop hot water

Cost:
- Cheap
- Made from very cheap plastic

Customer:
- Adults and the elderly will use this

Environment:
- Made of mostly plastic depending if its recycled plastic or not, but seems environmentally cleaning

Function:
- It is stiff and difficult to open as there isn't a comfortable place to pry
- Base has very short legs and cannot reach far
- This bottle can only be placed in one orientation or it will not fit on base, this negative is amplified due to the wide length and is more difficult to place where you want and the orientation outward.
- The feet of the base are very slippery and do not stay in one

Safety:
- Unless as it could fall out of hands
- Lid prevents boiling water from escaping

Material/Manufacture:
- Plastic is easy to manufacture but doesn't have good grip so it could frustrate it, cost for use entirely different material.
- Feet are also made from plastic resulting in sliding on the surface

Evaluation of page:
From this I have learned that the curved edges look nice and it can hold a lot of water, but too much curves may be difficult to hold and the handle is in an awkward position for your hand while pouring

Size:
- Medium, can be easily held and can contain a decent amount of water

Initial Ideas & Analysis

Attempted ideas using different closing techniques such as freezing the water

From the previous small paper I build off of the base shaped and design and tried implementing them into 12 more detailed and realistic designs. Many use heat to either kill/make microorganisms and evaporate/completely evaporates water to remove nearly all harmful substances by killing and separating them but takes much longer, requires more energy and will be more difficult to achieve

The rest of the 12 ideas. Some ideas include using filtration to remove sediment, while others use chemicals to clean the water but they might contact the goal of removing chemicals, so I could use more safe chemicals. Some designs even have a button to ensure the water stands up as clean as possible.

Evaluation of page
These designs are functional but not aesthetic. I should try something more unique

Materials Research & Technical Requirements

Industrial water cleaning techniques
As sewage enters a plant for treatment, it flows through a screen, which removes large floating objects such as rags and sticks that might clog pumps or damage equipment. After sewage has been screened, it passes into a grit chamber, where sand, silt, and small stones settle to the bottom.

How Waterworks Treatment Works - The Basics
This water purification methods makes use of chemical purification rather than filtering the water. This allows for killing harmful bacteria which killing germs may be incapable of achieving

Reverse Osmosis (RO) is a water treatment process that removes contaminants from water by using pressure to force water molecules through a semipermeable membrane. During this process, the contaminants are filtered out and flushed away, leaving clean, delicious drinking water. Reverse osmosis is capable of removing up to 99 percent of 65 different contaminants, including lead, fluoride, PFOs, pesticides, chlorine, dissolved salts, and more. - [what is reverse osmosis](#)

Distribution:
- **evaporating water is another way to purify water as it removes sediment and kills bacteria as one goes, not only that, but in the industrial process of cleaning water, chlorine is often left in the tap water we drink which we though in small amounts could cause a risk. Boiling the water can also remove the chlorine from it.**

UV technique:
UV light kills germs in water and can be used as an alternative to chemical disinfectants. A portable, battery-powered device can be purchased online, a reusable, screw-down UV light. This method can be effective in treating small quantities of clear water. The manufacturer's instructions must be followed to confirm the length of time needed for treatment. This method will not work in cloudy water. [UV disinfectant](#)

Diy method:
Different sized rocks in a decreasing order size for the top smaller particles of dirt dust and debris from entering and contaminating water.

Evaluation of page:
The best method is distillation as it remove a lot of the chemicals and removes all sediment by utilizing boiling points.

Initial Ideas & Analysis

Big container with large filter paper at the top to help reduce out - filter paper or rocks can be used but in this case I experimented using lab equipment so filter paper will stay with this design as also the large opening at the top means lots of heavy rocks would be required

Tap extender with either filter paper or an assortment of different sized rocks when filter out sediment

Many layers to spread the water first and make it easier to evaporate and a container at the top where the clean water is stored

Way too blocky and these designs are too generic while having boring shapes

A rubber seal to prevent water leaks from my container

Evaluation of page
All these designs take in functionality as a priority which I why my next design improvements will also look at aesthetics, comfort ease of use etc.

Design to place a cup under device so it can dispense clean water into drink container, paired with any of these filtering techniques can make for a safer and more familiar user experiences as if were a coffee machine

Materials Research & Technical Requirements - 2

Material of without boiling water:
It will be important to use a material which can handle boiling water without releasing any chemicals or being affected itself.
This is because some plastic are susceptible to safety store boiling water and will release harmful chemicals into the water and some metals could react to the water.

Plastic:
- **PPPC of plastic - (polypropylene) Plastic Materials**
This article states that some plastic can safely store hot water

COMB of plastic: (Bakelite) - Bakelite according to this website, using plastic to contain boiling water may be dangerous or harmful to health due to leaching chemicals.

The 3 types of plastic:
- Thermoplastic - Low boiling point, can be recycled - HDPE melting point: 135 degrees - also available
- Elastomers - used in hot boiling point
- Thermosetting - High boiling point

Thermoplastic Vs. Thermosetting Plastics Manufacture
From this resource my product will need to handle high temperatures therefore some sort of thermosetting plastic will be the best option but despite a plastic, a high boiling point isn't a nice very good.

Summary:
I will be using HDPE and maybe stainless steel or a metal to contain the water because other plastic like bakelite is not HDPE for the thermoplastic. Due to lack of subject resources I may use a different type of plastic or metal for safety, but for manufacturing a different kind of plastic and metal may be used.

Lead:
Boiling your water will not remove lead. In fact, lead in the opposite. Boiling water that is contaminated with lead will increase the concentration of water. This is because as water evaporates during the boiling process, the ratio of lead to water is greater than when you started.
[Dissolved Lead in tap water](#)

Other water treatment as part of a water treatment solution, this process involves heating water to a boiling point and collecting the condensate, leaving many contaminants behind. Distillation is also deemed highly effective by the CDC in remove lead in water, chromium, and other chemical contaminants. And, as with reverse osmosis, it is used for removing bacteria and viruses.
[Lead and water filtration](#)

Evaporation vs Boiling:
To summarize, evaporation is slower, occurs only from the surface of the liquid, does not produce bubbles, and leads to cooking. Boiling is faster, can occur throughout the liquid, produces lots of bubbles, and does not result in cooking.
[Evaporation vs Boiling](#)

Light: Boiling the water's surface area and water meet, can break water molecules apart and heat them into the air, causing evaporation in the absence of any source of [Evaporation: Boiling Point and Heat](#)

Does boiling remove chlorine from water? You boiling water for 15 minutes will remove all of the chlorine from tap water. Alternatively, leaving a jug of water uncovered at room temperature for at least 24 hours and the chlorine will evaporate without [Boiling: Why does it boil?](#)

Evaluation of page:
These are many of the methods could use to actually clean the water

Initials Ideas and analysis - 3

Design 7
Smooth handle made of a fabric or soft material for comfort, smooth edge for safety and let for accessibility to clean inside or pour water. Lock ensure water is secure and doesn't spill or leak. Handle sits higher above the surface to fit larger hands and target mid-palpe. Smooth edges combined with the side allows for an aesthetic appeal and a modern design.

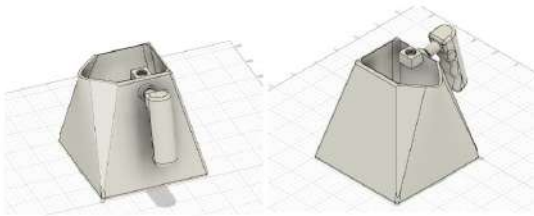
Design 8
Round curved design allows for smooth finish with much less edges, saves space as most of its dimensions are in a single plane, less risk to children due to lack of sharp edges. Simplifying helical structure on the inside that could be used as art of the mechanism for the products

Design 9
Portable smooth design, with spout allows water to direct into one stream for controlled pouring. Smaller design than the rest as this one is portable with perhaps a built in battery. Water comes in the same way it goes out.

Evaluation of page:
These designs look more peculiar which is good but still seem somewhat unusual and boring

Design & Technology - Grade 5

Final Idea 3D CAD Model



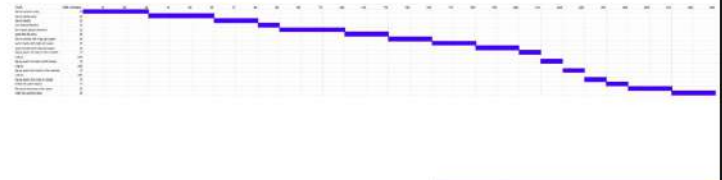
The handle design simply screws in and is very easy to attach and detach. It fits a hand and is moulded to your grip for a secure and comfortable fit. The handle inlet takes up very little space leaving room for the water, and the mechanisms needed for actually filtering the water and washing as intended.

This is my latest design and has been chosen due to its aesthetic and functionality that complement each other. Especially where in the earlier editions, all sides were straight and flat which couldn't gather water. In this it includes a unique curved shape that is not only aesthetic but functions to gather the water at the top of the lip.

Most of the design features curved and flanged edges to prevent poking and uncomfortable feeling while looking nice. I have also added white paint in the design so when the prototype is made, it can show visible stains or residue that may have accumulated and signify when a cleaning is needed to be done.

Production plan

1. Begin by 3D printing the design with its 2 components
2. Once printed, check for any errors or formation issues.
3. If there are considerable differences during printing, restart the printing and recycle the PLA used for the design.
4. If there are some small minor details then simply use tools to correct the issues.
5. If the surface isn't up to standard, using a low grit sandpaper, rub across the surface until the surfaces are smooth.
6. Hold the design on the table secure as a work fit correctly in the vice and rub evenly all over the surface using low grit and moving to high grit over time.
7. For the filing, simply use a plane to cut out the pieces and use a file to remove the excess material if needed.
8. Simply hold the component that will be filing secure on the table and run the trough file surface on the needed side.
9. Once the base plastic is suitable, Wear a mask, apron and goggles.
10. Using spray paint, step 1 meter back from the model and spray paint slowly and evenly all over the design.
11. If it begins to pool paint, stop and move to the next side. The paint is best when flat and even all over.
12. Dry do the outside fill and leave to dry when complete.
13. When the first coat is dry, check for any empty spots and fill them in with more paint, and any spots with too much paint, file them and then paint again.
14. After this is complete leave to dry once again.
15. Finally spray paint the inside with an even coat on all sides and leave to dry.



Evaluation of page
This gantt chart represents the times I will use and go by to efficiently make the model.

Technical Specification

Component	Material	Tools	PPE	Finish
BODY	PLA	3D printer Sand paper File	Goggles apron	Paint
HANDLE BASE	PLA	3D printer Sand paper File	Goggles apron	
HANDLE EXTERNAL	Wood or PLA	Tenon Saw Sand paper Copying saw File Belt sander	Goggles apron	Varnish

Evaluation of page
These are the measurements I will try follow during making.

Making Diary

FIRST ADDITION:
My design includes a cylindrical top shape or something of a general base shape that connects towards the top of the design with a wider base and to hold in any electronics, mechanisms and the water I spill. The lip uses a circular shape to gather the water towards the top for pouring.

Problem
This design is too plain and simple and doesn't include a handle to be able to hold it and also has really busy edges therefore will need improvement.
The lip is too small and doesn't gather much water so I should increase its size.

SECOND ADDITION:
The edges have been changed to make a more aesthetically pleasing design, and instead of a cylinder lip, I have added a circular shape that has a sharp turning point which now resembles a lip. It has been added on the top and side of the shape. To hold the handle. This idea has been thought to be able to make the handle removable to be able to choose whether you want it on the top or on the side.

Problem
When pouring the water I realised that this design will not be able to gather the water at the top where the lip is on to completely fill and slight meaning only the water that stay in the middle and flow into the lip. It is on will come out as intended, therefore it will be very difficult to pour using this.
The chunk that contains the 2 screw threads holes also takes a large section from the cone and is quite obvious due to its large volume.

1ST HANDLE:
My final design now includes a handle that is attached to the surface of the shape at 2 points. The CAD model depicts a cylindrical handle body with 2 holes of equal distance apart. These holes will allow the handle to sit in and will secure to be used.

2nd HANDLE:
This handle simply removed I have thinking me with a cylinder with one hole. This one much easier to work with as it's empty. Thread the main body and the handle then I can screw in which will provide a secure fit and be easy to remove when needed.

Problem
I had a difficult modelling something to connect this design to the body as I want 2 connection points which complicates the making of the handle. I will require some sort of mechanism that can attach 2 points simultaneously I could make use of a simple screw in when I have found a much easier and simpler method to fix this issue that is even better than the first.

Problem
While a cylinder is smooth and comfortable, it may prove difficult to hold due to the lack of grip and textured surfaces. Furthermore, it has sharp edges and the cross section meets the rounded surface on it in a way as well as it would have been fixed.

Evaluation of page
These designs are an improvement yet still are lacking in some areas, I will improve the handle and design the lip so it is functional.

Final Prototype Manufacturing Plan

Process	Time	Equipment	Explanation
3D print	12 hours	3D printer	I will use a 3d printer which will extrude PLA thermofusing plastic and create the body.
Check for issues	30 minutes	Ruler	Check all measurements are correct and if there are any printing error.
Sand surface	1 hour	Sand paper	I will use sandpaper to smooth the surface and remove rough textures in order to have a quality surface.
File plastic	30 minutes	File	I will use a file to remove the flayed part of the plastic that have been printed incorrectly.
Paint 1st coat	10 minutes	Spray paint	To make a nice white clean finish I will use a white coat of paint which will also show any dirt residue that may be in the surface that it may be cleaned.
Paint second coat	10 minutes	Spray paint	A second coat will be used to flatten and smooth out the finish to create a quality finish and prevent right edges and pooled paint as well as empty spots.
Shape wood	30 minutes	lathe/ saw	If possible I will add a wooden handle to create a nice variation in the materials and have a handle with a strong structure.

Evaluation of page
This process will be used to make my product however later on I was unable to use wood so as limited.

Making Diary - 2

This handle design uses a grip specifically designed and tailored to a human hand and include ridge and bumps for the hand to slide and fit in comfortably. The ropes also add a much needed secure hold and texture to prevent you from keeping it.

The screw thread has been obtained along the lip to only select the amount needed so that the threading is not very visible when the handle is attached to the main body.

This handle has much more curved edges and is very aesthetic and comfortable to touch. The length of the screw thread from the handle is...

I have redesigned the main body to have one side completely curved all the way to the top. This new shape allows for all the water to gather at the top and only flow out the lip as it completes the higher on the side you get rid of more this unique and aesthetic as it has less like a simple top down I could make the handle hole on the side slightly stick out to allow volume on the inside of the design for storing the water and other components. The lip screw thread also has made a smaller circle that further decreases the volume taken up.

My handle has been 3d printed to a smaller scale, about 4:1. It has been printed as designed and is already accurate to my design. The only differences are the screw holes for the part on this model is very small, there a multiple printing errors, though these should be fixed when printed at a larger scale. It has been printed on one side and that side is flat when it is supposed to be curved as I found when printed at a larger scale I could print it up side down in the necessary edges are curved. However, this may not be necessary as the large scale design may solve this problem or I could use the side.

The design on the right was one of my earlier designs and was competing it to my new design on the left. The printing was done well however the sharper edges have led to a rough textured surface as well as the lack of grip on the inside of it. If the same issues happen on my real scale prototype, it will be much harder to hold, clean it out as it is not a smooth side, and the excess plastic could break off and fall into the water.

Evaluation of page
This is my progression of my designs and I have found a suitable model to make.

Design & Technology - Grade 5

Making Diary - 3

Here my design is being 3D printed. It came out with roughly printed sides and frayed edges on the handle and the inside of the container.

Because of this I am going to sand the sides down for a smoother surface. I am also using sandpaper to smooth the inside of the container's sides as if they remain rough, it will be hard to wash, and the small textures that stick out could be rubbed off during scrubbing leading to plastic entering the water.

Here I began by sanding some sides and filing the frayed parts to make a smooth solid finish. I sanded for about 30 minutes until it was relatively smooth then I got a wet paper towel and wiped off the plastic shavings to prevent plastic from entering the water.

Here I am spray painting the body and handle a white paint so that it is easier and cleaner to spot dirt, residue or other substances which can easily indicate if it needs to be cleaned out. The paint also adds a clean kitchen look as majority of kitchen containers like bowl and plates are white.

Here I dismantled a kettle in order to try understand the way it works to implement its water heating mechanism, but due to time I could not make the feature.

Evaluation of page
Overall the shape and body was made well however the functionality aspect made as intended due to time, if I had more time I could add a heating feature to actually heat the water.

Final Prototype Photos

Primary user uses my product

Reason:

- Is my product aesthetically pleasing? Yes I have no curved edges and looks modern.
- Is it easy to carry? Yes, the handle allows for a grip.
- Is it ergonomic? Somewhat, slightly too small, if I use a little bigger it would be even better.
- Is it easy to clean? Yes.
- How comfortable is this food? Handle may be a little too small.
- Does it filter? No, if I did I would be much better and solve the issue.
- Is it useful? Yes, it is useful for the design to look at it needs to be functional.
- What would you change about the product? Just make it a little bigger and actually function.
- Should you use this product? Yes.
- How much would you pay for it? An £15, £10, with the electronics and hardware, up to £30.

I would increase the size and actually make it functional to filter the water, actually, I would also use a different material as I don't like using plastic as food or drink containers. The action where the screw filter is in the top edge and I would smooth them out to make easier cleaning.

1. I don't like all the sharp edges when used to make washing easier more appropriate.

To improve the grip and quality to pressing the use, I should use a lightweight strong wood like ash with a finish on top to prevent water from seeping the wood.

2. I would also file the inside edges which means a lot of sanding, only the outside is relevant.

3. I have painted the surface with a spray paint so that it is easier and cleaner to spot dirt, residue or other substances which can easily indicate if it needs to be cleaned out. The paint also adds a clean kitchen look as majority of kitchen containers like bowl and plates are white.

4. I have dismantled a kettle in order to try understand the way it works to implement its water heating mechanism, but due to time I could not make the feature.

5. Here you can see the handle fits in well however it does not sit correctly leading to an uneven top surface, which is not ideal for the user to use. I should use a different material as I don't like using plastic as food or drink containers. The action where the screw filter is in the top edge and I would smooth them out to make easier cleaning.

6. As you can see here there are multiple spots where filing has occurred and this has led to the design looking like this which decreases the aesthetic.

Final Prototype Evaluation against Technical Specification

Component	Material	Tools	PPE	Finish
BODY	PLA	3D printer Sandpaper File	Goggles Apron	Paint
HANDLE BASE	PLA	3D printer Sandpaper File	Goggles Apron	Paint
HANDLE EXTERNAL	Wood or PLA	Tenon Saw Sandpaper Coping saw File Belt sander	Goggles Apron	Varnish

Component	Material	Tools	PPE	Finish
BODY	PLA	3D printer Sandpaper File	Apron, goggles, mask	Paint
HANDLE BASE	PLA	3D printer Sandpaper File	Apron, goggles, mask	ONE COMPONENT
HANDLE EXTERNAL	PLA	Tenon Saw Sandpaper Coping saw File Belt sander	Goggles, mask, apron	Paint

My design has successfully been made out of the specified materials.

The handle is completely PLA, the body is also PLA and I have added a surface finish of spray paint all over the body. However there was one component (the handle) which was supposed to be made out of part wood for the external which I was unable to do and it is now completely PLA instead.

Evaluation of page
Body was mostly met, with slight modifications to the handle material to save time.

Final Prototype Final Evaluation & Potential Future Improvements

My design has successfully been printed. It has the 3D printed and textured handle as intended however it also has some printing errors. To summarize them I: empty files, sanded and cut the excess material off and it has been successful.

The main body has also been successfully designed but with some flaws on the inside and some rough textures but this was easily fixed through sanding. I don't like the way the handle fits in, it's not quite right and it's not quite right.

Due to my intended size being so large, I had to print the final prototype smaller than expected and so I don't completely fit. My early impressions due to the scale being slightly different, the storage capacity has been drastically decreased as well as space for any electronic components that could have been added. Furthermore the handle is not as big as I wanted and I don't like the way the top handle is not as strong as I can be. In the future I will be making a version with larger sized handle and so I can be used by a variety of people that I can be used by. Luckily this can be a prototype and shouldn't affect the final product.

Requirements	Made from non-embarrassing materials	Is visually appealing	sturdy	Can filter clean water	Safe to use	Cheap to produce	Fits on tables and most sized spaces	Simple enough for simple manufacturer while being functional	Lightweight
YES-PLA is thermoforcing	YES-smooth curved edges	YES-good structure	NO	YES	YES	YES	YES	YES	YES

Process	Time	Equipment	Explanation
3D print	12 hours	3D printer	I will use a 3D printer which will extrude PLA thermoforcing plastic.
Check for issues	30 minutes	Ruler	Check measurements or any printing errors that need fixing.
Sand surface	1 hour	Sand paper	I will use sandpaper to smooth the surface and remove rough textures in order to have a quality surface.
File plastic	30 minutes	File	I will use a file to remove the frayed part of the plastic that have been printed incorrectly.
Paint 1st coat	10 minutes	Spray paint	To make a nice white clean finish I will use a white coat of paint which will also show any dirt residue that may be on the surface that I may be desired.
Paint second coat	10 minutes	Spray paint	A second coat will be used to further smooth out the finish to create a quality finish and prevent any dirt edges and sanded paint as well as empty space.

Evaluation of page
Overall my product has many flaws so for the future if I have access to better equipment I could use better materials for the usage.

Evaluation of page
For the future I should consider making it functional and manufacturing the model without any errors during printing or whatever process used to make it. I should also use a different finish or perhaps to fix all the problems perhaps a new material entirely, like steel or a different type of 3D printable plastic.

Main Pros and Cons

Advantages:

- Holds water - The design was intended to contain water and successfully completed that task.
- Portable - the design is easily carried, it is small enough to hold but due to being a smaller scale I think it could be enlarged slightly more and still be portable.
- Safe - curved edges.
- Simple - Easy to print, not much small detailed edges requiring extensive precision.
- Unique design.
- Lightweight - This property boosts the model's portability and allows the material used to be suitable for this use.

Disadvantages:

- Not enough water - while the design does hold water, it is a little too small for my liking and therefore has less capacity than desired.
- Does not filter - My design is not suitable to successfully produce drinking water or filter the water in any way as I was unable to complete the design within the time.
- Not quality finish - The printing has caused variation in the edges and finishes which have required.
- Paint not safe to use as drinking water - I believe the paint may go into the water when using and therefore may not be healthy to use for this application.
- Too small handle - the scale printed has led to the handle being being able to fit my hand and will most definitely be unable to hold other people's hands.

Solution:
To improve my model I will increase the scale in order to also make the handle larger as well as increasing the capacity, during printing I could either make the design into 2 components to fit it in the printer, or I could trim the edges to reduce material needed.

Engineering - Merit

Project Brief

You are an industrial designer who works for a household furniture company. The company supplies office and home accessories.

The company has asked you to design and then produce a working scale model (1:1) of a table holder to attach to a desk or table.

The main purpose of the working scale model is to give the manufacturer a low or scaled-down idea of how the product will look and function. It is not intended to be used as a final reference for the final product. It is a tool to help you and the manufacturer to see how your design better meets its function.

Your working scale model must allow the manufacturer to:

- be universally compatible with devices that have a screen size between 4.5 inches (114 mm) and 13.0 inches (329 mm) (for monitoring the level of manufacturing progress)
- be made from a material that is suitable for mass production
- be capable of attaching to any horizontal surface, like a desk or table, that is up to 52 mm thick.

The company has supplied you with additional drawings:

Figure 1 and Figure 2 show examples of the main moving part of a table holder.

Figure 3 is a sketch and is a help in the construction of your working scale model.

Project instructions:

The company has asked you to present a full portfolio of evidence which is to include:

1. A suitable research and materials selection
2. A visual sketch engineering drawing
3. Engineering drawings using computer-aided design (CAD) software
4. A photograph of the working scale model
5. A photograph of the working scale model
6. Evaluation of your final product.

Tools research

Making Die Tools	Making die tools are a wide range of equipment that complement other tools for wood and metal processing.	Hand tool	Any tool that is powered by hand rather than a motor.
Modification Tools		Power Tool	Any device or machine powered by an external source of energy, such as electricity or compressed air.
Fixings		Component	An element of a system or a part of a machine.
Finishing Tools	Finishing involves abrading the surface of a manufactured part to achieve the desired appearance or make it easier to work with to provide durability. The finishing processes used on the manufactured part depend on the part's material, whether it is plastic or metal.	CNC	A manufacturing method that automates the control, movement and precision of machine tools through the use of programmed computer software, which is embedded inside the tools.

Router		Wood, metal, solid and plastic
Steel Rub		Any material
Engineers Square		Manufacturing tools as well as DIY and woodworking
Marking Gauge		Calligraphy
Center Punch		Metal, sheet of metal or wood
Chisel		Do not keep near machinery for safety reasons

Figure 1: Joint point and table clamp examples



Figure 2: Table clip example

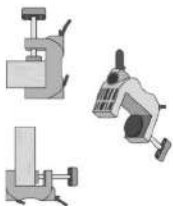
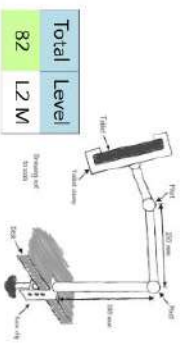


Figure 3: Isometric sketch of a table holder



Rivets		You need a tool that can place the rivet securely in the hole and then apply the appropriate amount of pressure to securely set the rivet.
Nuts & Bolts		Use the correct equipment (such as spanners) for tightening nuts and bolts to prevent damage.
Hand Sander		Firmly hold the sander by gripping both handles. Keep the sander square to the surface of the sanding work stock.
Disc Sander		Always place material on the table on the downward side of the disc.
Buffing Wheel		Operators should always wear safety goggles, apron, glove, and dust mask.

Task 1: Materials research

The materials selected:

Computer: A computer is essential for an industrial designer. It is used for creating 2D and 3D models, rendering, and printing. It is also used for research and development, and for managing the design process. It is also used for communication and collaboration with clients and colleagues.

Table: A table is a piece of furniture with a flat top and one or more legs. It is used for dining, working, or as a display surface. It is also used for storage and as a work surface. It is also used for communication and collaboration with clients and colleagues.

Materials: A material is a substance that can be used to make a product. It is used for creating 2D and 3D models, rendering, and printing. It is also used for research and development, and for managing the design process. It is also used for communication and collaboration with clients and colleagues.

Sketches: A sketch is a drawing that is made by hand. It is used for creating 2D and 3D models, rendering, and printing. It is also used for research and development, and for managing the design process. It is also used for communication and collaboration with clients and colleagues.

Software: Software is a program or set of programs that tell a computer what to do. It is used for creating 2D and 3D models, rendering, and printing. It is also used for research and development, and for managing the design process. It is also used for communication and collaboration with clients and colleagues.

Hardware: Hardware is a physical component of a computer system. It is used for creating 2D and 3D models, rendering, and printing. It is also used for research and development, and for managing the design process. It is also used for communication and collaboration with clients and colleagues.

Handheld: Handheld is a device that is held in the hand. It is used for creating 2D and 3D models, rendering, and printing. It is also used for research and development, and for managing the design process. It is also used for communication and collaboration with clients and colleagues.

Tools research

Hacksaw		Sawing safely through metal, plastic, and other materials.
Angle Headcutter		Used for cutting through metal, plastic, and other materials.
Timex Saw		Used for cutting through wood.
Coping Saw		Used for cutting through wood and plastic.
Tin Snips		Used for cutting through metal.
Pliers		Used for gripping, bending, and cutting.

Ball Pen Hammer		Use for driving nails and for driving screws.
Claw Hammer		Used for driving nails and for pulling nails.
File		Used for smoothing and shaping metal.
Jigsaw		Used for cutting through wood and plastic.
Angle Grinder		Used for grinding and polishing metal.
Cordless Drill		Used for drilling holes in wood and metal.

Pillar Drill		Used for drilling holes in wood and metal.
Scroll Saw		Used for cutting through wood and plastic.
Router		Used for shaping and smoothing wood.
Lathe		Used for turning wood and metal.
Milling Machine		Used for cutting through metal.
Laser Cutter		Used for cutting through wood and metal.

Riveting Gun		Used for driving rivets.
Screwdrivers		Used for driving screws.
Spanner		Used for tightening and loosening nuts and bolts.
Hot Glue Gun		Used for bonding plastic and wood.
Soldering Iron		Used for joining metal.

Engineering - Merit

Task 2

What does BS 8888 say:

BS 8888 is a British standard that provides a comprehensive and consistent framework for communicating engineering design specifications and requirements. It covers various aspects of technical product documentation, such as symbols, dimensions, tolerances, materials, and surface texture.

What is the purpose of BS8888:

The BS8888 standard is needed because it provides a recognised framework for communicating graphical technical product specifications. It ensures clear understanding and interpretation of designs across the manufacturing process, reducing errors and facilitating accurate production.

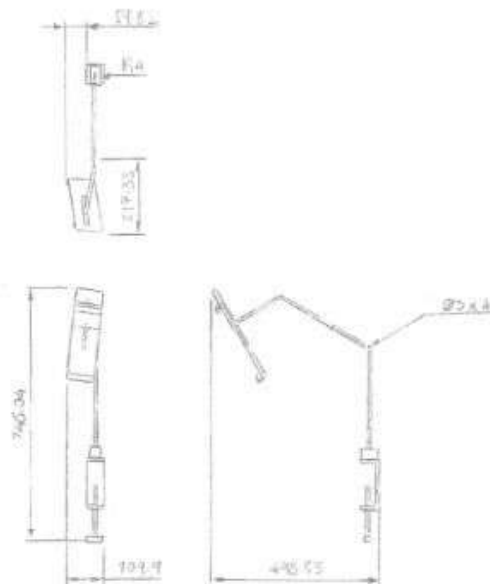
Purposes:

- Unifying all the ISO standards applicable to technical specification;
- Giving an index of ISO standards involved with different principles of technical product specification (TPS);
- Providing BSI with a platform for further explanatory commentary where necessary.

How does BS 8888 impact the world:

BS8888 drawing standards are a set of agreed and accepted practices that improve the communication of design intent and ensure that designs are interpreted correctly, which is vital in the world of engineering.

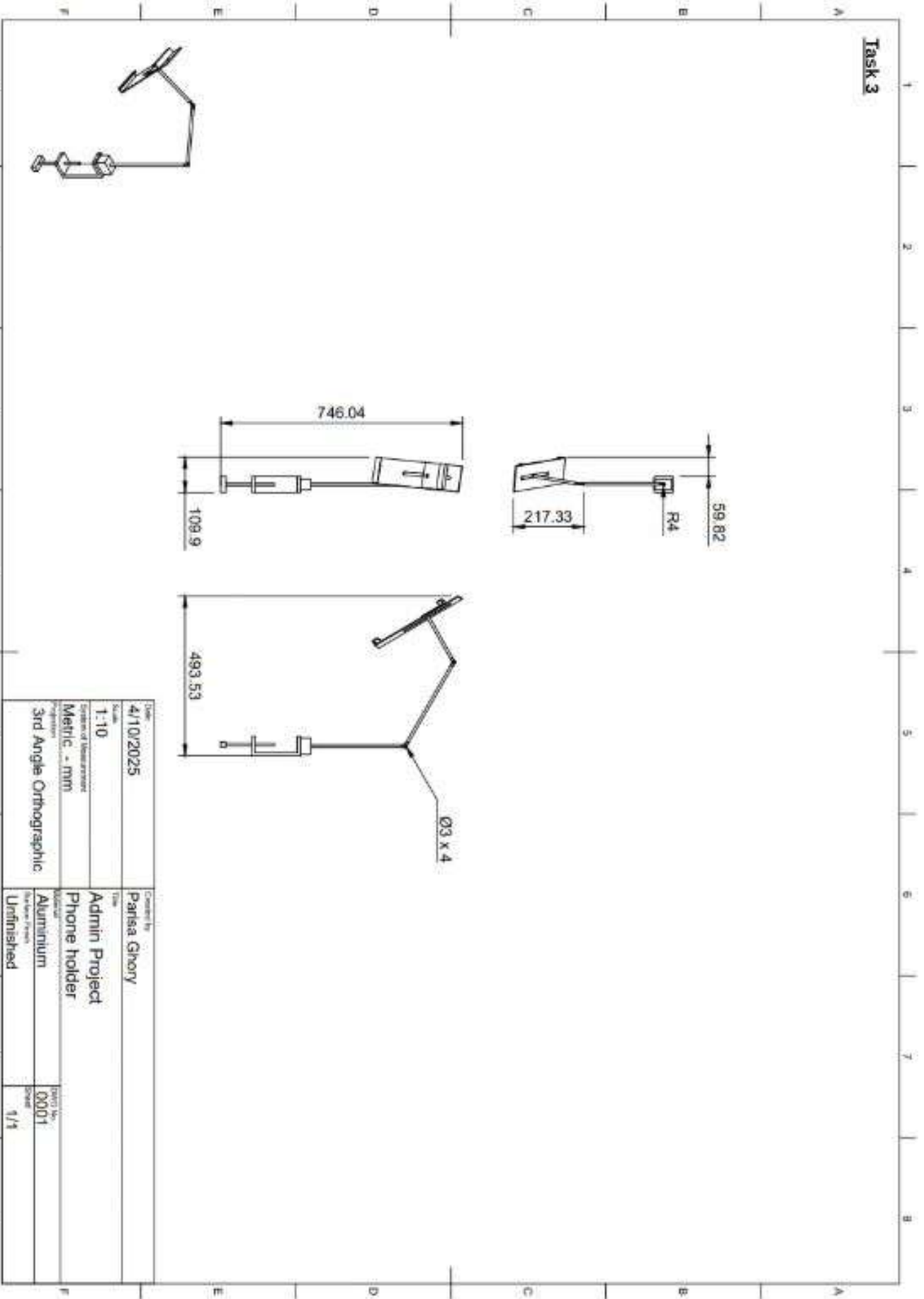
Line	Description	General Application
A	Construction	A1 - Visibility lines
		A2 - Hidden lines
		A3 - Tangent lines of intersection
		A4 - Extension lines
B	Construction (object's outline)	B1 - Projection lines
		B2 - Lead-in lines
		B3 - Hidden transition
		B4 - Hidden lines
C	Construction (free hand)	C1 - Lines of parts in perspective
		C2 - Hidden lines in perspective
U	Construction (object's outline)	U1 - Long dashes
		U2 - Short dashes
F	Parted line	F1 - Hidden edges
		F2 - Hidden edges
S	Construction (object's outline)	S1 - Hidden edges
		S2 - Tangent lines
H	Construction (object's outline)	H1 - Hidden edges
		H2 - Hidden edges
J	Construction (object's outline)	J1 - Hidden edges
		J2 - Hidden edges
K	Construction (object's outline)	K1 - Hidden edges
		K2 - Hidden edges



Date	27/10/2025	Drawn by	Yasmin Collins
Scale	1:1	Title	
Section	1st Measurement	Project	Alfina Project
Material	Metric - mm	Part Name	Phone holder
Finish	End Face Orthographic	Material	Aluminium
		Surface Finish	Unfinished
		Sheet	0001
		Sheet	1/1

Engineering - Merit

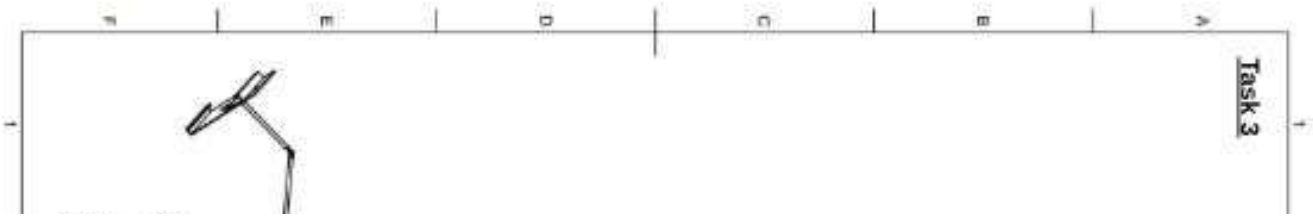
Task 3



Date	4/10/2025
Scale	1:10
System of Measurement	Metric - mm
Projection	3rd Angle Orthographic

Created by	Parisa Ghory
Title	Admin Project Phone holder
Material	Aluminum
Surface Finish	Unfinished
DRAWN No.	0001
DATE	1/1

Engineering - Merit



Task 4

1. Step 1

PPE: I would have to wear an apron to protect the clothes from getting tugged at. First I will need to cut 3 copper pipes using a hacksaw. The whole pipe is 750 mm, and the 1st pipe needs to be 300 mm, the 2nd pipe needs to be 290 mm, and the 3rd pipe can be whatever is left from 750 which would be 160 mm. Then I would have to flatten the 300 mm copper pipe on each side by 20 mm using a vice, and I would do the same to the 290 mm copper pipe on each side, and then I would only need to flatten the 160 mm copper pipe on one side by 200 mm.

2. Step 2

I would need to get galvanised steel and mark at 200 mm using a pen and ruler so I know where I have to cut it using the hacksaw later on. Then I would have to place the galvanised steel into the vice horizontally to cut it at 200 mm, and tightening the vice so it stays in place and doesn't fall out and harm me or anyone else around me. After that I would have to use the hacksaw and start cutting the galvanised steel at 200 mm.

3. Step 3

Then I would need to mark 40 mm on both ends of the galvanised steel that I have cut because I would be bending both sides of the galvanised steel by placing it in the vice and using a hammer I would hit it so it starts bending into an L-shape and then afterwards I would do the same to the other other of the galvanised steel. I would do this so it turns into a [shape and will be used as a clamp to hold onto the table

4. Step 4

Then after I am done with galvanised steel I would move onto to using nuts screw onto screw thread to mark out the line mateds by 150 mm to be cut, using a hacksaw. Then to remove the nut left on the screw thread I would need to use a drill and pull back

5. Step 5

Then I would get a mild steel bar and mark out 50 mm onto the mild steel bar to be cut, and then I would place it in the vice and tighten it so it's in place and start cutting using a hacksaw

6. Step 6

Then I would need to drill a hole through the galvanised steel that I have cut beforehand. I would use and drill and a 7mm drill tip and put that 7mm drill tip into the drill, afterwards I would place the galvanised steel into the vice and tighten it so it stays in place as I drill the hole using the drill.

7. Step 7

Then I get the copper pipes and at the end of the 300 mm first and mark out 20 mm on both of its ends and place the 20 mm marked end in the vice and start tightening the vice to flatten the end as that would be used to connect the copper pipes together. Then I get the 290 mm copper pipe and mark it at 20 mm as well

8. Step 8

Then I would put the copper pipes in the vice vertically to flatten it and after flattening them I would find the middle and make a dent there using a centre punch to drill a 6mm hole so the pipes would be able to join using screws.

9. Step 9

Then



Engineering - Merit

Task 4

1. Step 1

PPE: I would have to wear 3 copper pipes using a 1 2nd pipe needs to be 29 mm. Then I would have would do the same to the 160 mm copper pipe on

2. Step 2

I would need to get galvanised steel to get galvanised steel to cut it using the hacksaw horizontally to cut it at 20 mm or anyone else galvanised steel at 200 mm

3. Step 3

Then I would need to mark the bending both sides so it starts bending into galvanised steel. I would table

4. Step 4

Then after I am done will mark out the line marked screw thread I would need

5. Step 5

Then I would get a mild steel would place it in the vice

6. Step 6

Then I would need to drill and drill and a 7mm drill galvanised steel into the

Task 5- Manufacture of the working scale model



Here I am cutting the copper pipes to be used as the arm for the tablet holder, firstly I am dividing the 750 mm copper into three parts: 300 mm, 270 mm, and 160 mm.



I marked the middle of the mild steel block using a centre punch and hitting on it with a ball pein hammer so it creates a dent. Then I placed it into the pillar drill and adjusted it. Then I aligned the drill bit with dent and changed the depth to 4mm and drill into the block



Now with the galvanised steel I measured 200mm with a steel rule and draw the line on the galvanised steel to know where I need to cut. I secured it in the vice vertically so it doesn't move and ensures safety. And I cut the galvanised steel using a hacksaw.



Using a steel rule I measured 50 mm and draw a line on the mild steel so I know where to cut using a hacksaw

After cutting the copper pipes I measured 20 mm on each side of the longest copper pipe and middle copper pipe and mark them. Then I placed the copper pipes into the vice to flatten the sides by 20mm. Then once I'm done I found the middle part of the flattened bit and using a centre punch I made a dent in the middle bit I found using a ball pein hammer so when I drill the drill doesn't slip. Then I got the drill and changed the drill bit to 6mm then drilled a hole through the pipe so it could be used to join the pipes by using screws.



After I was done drilling the hole in the mild steel block I used cutting paste and a tap and die to create a screw thread, so it would allow the screw thread to be put through



I measured 150 mm using a steel rule then marked it onto the threaded bar. Then I put 2 nuts on the side of the marks line and secured it into the vice and cut using hacksaw



Then with the galvanised steel flat bar I measured 20mm for the shorter sides and 120mm for the middle section then I used a ball pein hammer to bend the flat bar so it makes I share

I used a 7mm drill to create a hole in the galvanised steel flat bar. Then I used the cutting paste again and tap and die to make a screw thread and then the screw thread can screw into the bottom part of the clamp

300 mm first and mark out 20 mm on both of its ends start tightening the vice to flatten the end as that would then I get the 290 mm copper pipe and mark it at 20 mm

scally to flatten it and after flattening them I would find the punch to drill a 6mm hole so the pipes would be

Engineering - Merit

Task 5- Manufacture of the working scale model



Here I am cutting the copper pipes to be used as the arm for the tablet holder, firstly I am dividing the 750 mm copper into three parts: 300 mm, 270 mm, and 160 mm.



I marked the middle of the mild steel block using a centre punch and hitting on it with a ball peen hammer so it creates a dent. Then I placed it into the pillar drill and adjusted it. Then I aligned the drill bit with dent and changed the depth to 4mm and drill into the block.



Now with the galvanized steel I measured 200mm with a steel rule and draw the line on the galvanized steel to know where I need to cut. I secured it in the vice vertically so it doesn't move and ensures safety. And I cut the galvanized steel using a hacksaw.



Using a steel rule I measured 50 mm and drew a line on the mild steel so I know where to cut using a hacksaw.

After cutting the copper pipes I measured 20 mm on each side of the longest copper pipe and middle copper pipe and mark them. Then I placed the copper pipes into the vice to flatten the sides by 20mm. Then once I'm done I found the middle part of the flattened bit and using a centre punch I made a dent in the middle bit I found using a ball peen hammer so when I drill the drill doesn't slip. Then I got the drill and changed the drill bit to 6mm then drilled a hole through the pipe so it could be used to join the pipes by using screws.



I measured 150 mm using a steel rule then marked it onto the threaded bar. Then I put 2 nuts on the side of the marks line and secured it into the vice and cut using hacksaw.



After I was done drilling the hole in the mild steel block I used cutting paste and a tap and die to create a screw thread, so it would allow the screw thread to be put through.

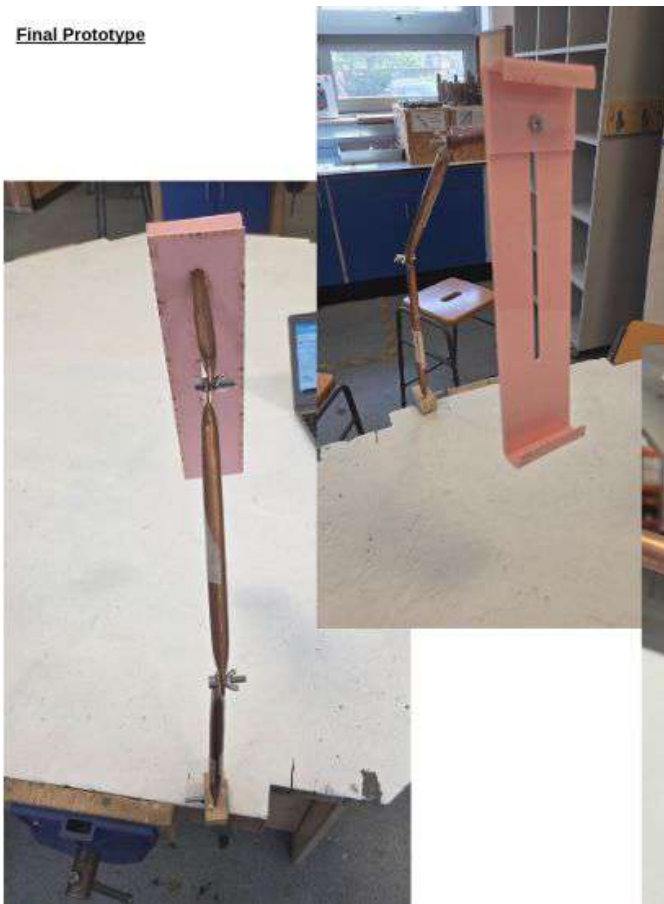


Then with the galvanized steel flat bar I measured 20mm for the shorter sides and 120mm for the middle section then I used a ball peen hammer to bend the flat bar so it makes I-shape.



I used a 7mm drill to create a hole in the galvanized steel flat bar. Then I used the cutting paste again and tap and die to make a screw thread and then the screw thread can screw into the bottom part of the clamp.

Final Prototype



Engineering - Merit

Task 6

Evaluation:

Materials used:

The materials chosen acrylic, mild steel, galvannead steel, and copper were generally appropriate for the construction of a visually appealing tablet holder that is durable. Acrylic was used to hold the tablet and there was a smaller and bigger piece that were joined together so the hole of the tablet could be adjusted accordingly to the size of the device, it also offered a clean finish ideal for visibility and form, while metal like mild steel added additional support to the clamp and made it adjustable, copper pipe were used to add flexibility to the the holder and structural support. However the fact that the moving acrylic bit occasionally gets stuck suggests that the tolerances are too tight.

The hand drafted engineering drawings were effective for initial conceptualisation, helping to visualise dimensions and basic form. The drawings supported clear understanding of the model's layout and components. The CAD drawings, used primarily for 3D visualisation was useful in digitally assembling the components and predicting how the model will turn out. However, a more detailed breakdown of individual parts in the CAD design such as separate views of joints, moving sections, and material thicknesses could have significantly improved accuracy during production. Exploded views or annotated dimensions for critical components (e.g., pivot points, joints, clearances) would have helped identify where parts might bind or misalign. Furthermore, a simulated movement function could have revealed the issue before.

The production plan was well structured and followed carefully throughout the building process, indicating a strong level of planning and discipline. This ensured that the major tasks were completed in an order, reducing the risk time loss or material waste.

The final model did not fully meet its intended functionality due to the problem with the acrylic movement. This issue affected the usability of the product and indicates the need for improved testing of moving parts and better integration of the tolerance in both the design and build stages.

While the model was broadly in line with what might be expected in industry featuring a balance of durability, aesthetics, and usability. The minor mechanical issue suggests further refinement is needed for full suitability in industry.

Recommendations for improvement:

1. Before full production make a test piece of just the moving section to trial functionality.
2. Ensure that moving components, especially in acrylic, have a slight clearance to avoid tight fits or friction. Account for thermal expansion and material flex—acrylic can slightly deform, especially if under stress or exposed to heat.
3. Reflect changes made to the design within the plan to maintain accuracy.
4. We could explore alternative materials for the moving part which would have better sliding properties.



Food & Cookery - L2 Pass

Task 1 - Amendment Recipe - [Redacted]

Pork Mince - £1 per 200g

(<https://groceries.asda.com/product/diced-minced-pork/just-essentials-by-asda-pork-mince/1000383159273>)

Beef Mince (Lean) - £1.58 per 200g

(<https://groceries.asda.com/product/beef-mince-meatballs/asda-flavourful-lean-beef-steak-mince-typically-less-than-5-fat/910002352739>)

Beef Mince (Organic) - £2.12 per 200g

(<https://groceries.asda.com/product/beef-mince-meatballs/asda-organic-lean-beef-mince/1000383147298>)

Chicken Mince - £1.10 per 200g

(<https://groceries.asda.com/product/chicken-thighs-drumsticks/asda-tender-chicken-mince/1000262112602>)

Beef Mince is about the same amount of protein per serving compared to Chicken

Pork although a cheaper choice it has less protein making it less beneficial to the growing children meaning that chicken is a more suitable option for the centre. This means that the chicken will allow for better muscle repair and growth.

Garlic Cloves - 39p each

Linguine - 75p per 500g

Wholemeal Linguine - £2.30 per 400 - Wholemeal linguine is healthier

Parmesan Cheese - £2.35 per 100g

Buffalo Mozzarella - £1.13 per 100g

Wholemeal linguine is better to use as it is a complex carbo will keep the children fuller for longer and will allow them to exercise more consistently as they will have more energy to exercise.

I am also going to use Parmesan cheese or cheddar cheese instead of buffalo mozzarella because they are more readily available and easy to find and source. Parmesan cheese melts well and is more aesthetically pleasing compared to buffalo mozzarella and is easier to use.

I will use 1 tin of chopped tomatoes to make the base of my sauce as it is 1 of your 5 a day and has a nice base for the sauce. This will be mixed with chicken stock as it adds flavour to the base of the sauce. The onions will be another 1 of your 5 a day as it contains nutrients and also adds flavour and aroma.

Task 2 - Amended Recipe [Redacted]

[Student]

Original recipe	Amendment	Why?
Pork Mince	Beef Steak Mince	Beef is higher in protein and can provide better for growth and repair
Nutmeg	No Nutmeg	The nutmeg is an allergen as people can be allergic to nuts
White Wine Vinegar	Lemon Juice	Lemon juice gives a citrus and acidic taste
Sea Salt	Salt	Cheaper price
Spaghetti	Wholemeal Linguine	Healthier, Fuller for longer.
Buffalo Mozzarella	Mozzarella	Cheaper, Different Taste
Buffalo Mozzarella	Grated Cheddar	Grated cheddar is more convenient and more ready available and easier to find
Fresh Garlic	Garlic Paste	Easier to store and implement. The taste is the same but garlic paste is stronger and more convenient
Golden Caster Sugar	Caster Sugar	Only major difference is colour while caster sugar is cheaper than golden caster sugar
Extra Virgin Olive Oil	Fry Light	Is healthier and is generally better when frying as no taste is changed

Task 1 - Amending a recipe - Ihsaan Chowdhury 1f [Student]

Dish name: **Mega Meatballs**

Ingredients

Meatball

400g of Beef steak Mince(Lean)
1 ½ tsp garlic paste
1 Organic Egg
150g Fresh Mozzarella
50g Fresh Parmesan
Sea Salt
Handful of Fresh Parsley

Sauce

1 tsp Garlic Paste
100 ml of fresh Chicken stock
Fry Light
1 Can of Chopped Tomato
1 tbsp of Lemon Juice
1 tsp of mild chilli powder
2 tbsp golden caster sugar
400g of Wholemeal Linguine
Fresh Basil

Equipment

Frying Pan
Wooden Spoon
Brown Chopping Board (Vegetables)
Pairing Or a Chef's Knife
Saucepan
Strainer
Bowl
Teaspoon
Tablespoon

Time

Method/Sequence

5m

- Wear and apron and take bags off into a corner out of the way

5m

- Prepare Surface And Equipment
- Dice 3 garlic cloves into small pieces
- Beat an egg in a small bowl
- Mix all the Mince, egg, Diced Garlic Cloves, Sea Salt in a large bowl,

20m

- Season with Salt and pepper, then scrunch the mixture together with your hands until combined
- Divide the mixture into 12 portions
- Use your hands to flatten 1 portion then gently wrap it around a piece of mozzarella and roll into a ball. Repeat with the remaining portions.

10m

- Chill the meatballs in the fridge whilst preparing the sauce
- Put any used equipment in warm soapy water and let soak
- Spray Fry Light into a large frying pan, fry the meatballs in batches, browning them on all sides, then transfer to a plate and set aside.

10m

- Slice 2 Garlic cloves into fine slices
- Spray more Fry Light into a pan and heat for 1 minute, then fry sliced garlic for a few seconds.
- Tip in the sugar and vinegar and simmer for 1 minute,

25m

- Chop tomatoes and add to the pan
- Add seasoning
- Cook over medium heat for 10 minutes

Special considerations

Health and safety

3 Towels to stop the spread of bacteria

Wipe surfaces thoroughly as the bacteria could spread from the surfaces.

Only use anti-bacterial spray at the end as it is a chemical contaminant.

Use different knives for meat and vegetables and reduce cross contamination.

Use bridge and claw techniques to cut the vegetables with a paring knife.

Wash hands in between each step to reduce cross contamination between raw meats and vegetables

Wash the dishes in between tasks to reduce bacteria spread using hot, soapy water.

30m

- Tip in the meatballs and gently stir to ensure they are fully coated in the sauce
- Cover the pan and simmer on a low heat for 20 minutes.

5m

- Spoon sauce over the meatballs occasionally
- Meanwhile, boil the Linguine in a saucepan
- To serve, divide the Linguine into four Plate/bowls, and top with three warm meatballs,

5m

- Split the 4 bowls and spread some parmesan on the Linguine
- Garnish with Fresh Basil

5m

- Wash dishes
- Dry and put away
- Clean surfaces with soapy dishcloth
- Finish with a layer of anti-bac

120m

Make sure to wear an apron as the hot oil will spit on clothes and can burn if landed on skin.

Make sure meatballs are cooked all the way through to decrease risk of in the meatballs

Pan handle should be plastic or another insulator to stop hands being burnt

Food & Cookery - L2 Pass

RESEARCH PACK

[KingsWood Residential](#)

Breakfast - by mealtime							Lunch - by mealtime							Dinner - by mealtime						
DATE	MEAT	VEGET	BEVERLY	TO-BEAT	DEP	OTHER	DATE	MEAT	VEGET	BEVERLY	TO-BEAT	DEP	OTHER	DATE	MEAT	VEGET	BEVERLY	TO-BEAT	DEP	OTHER
[Detailed menu grid with columns for Date, Meat, Vegetables, Beverages, To-beat, Dep, and Other for Breakfast, Lunch, and Dinner.]																				

[Kingswood Menu](#)

High Carbs for a High Energy to be used for outdoor activities
 Protein for a healthy balanced diet that promotes

Emission:

- Source food locally
- Organic food (No herbicide or Pesticides)
- [Organic Food is usually more expensive than non-organic](#)

Seasonal

April

The ultimate seasonal treat for April is asparagus. Enjoy it while you can as the season for British crops only lasts about 6 weeks. The ground should be warm now for sowing all sorts of hardy veg outside and you can start tender crops off indoors.

May

Now is the time to enjoy your very first delicate salads and sweet spring cabbage. The reliably warmer weather towards the end of this month makes it a good time to move tender plants like tomatoes and cucumbers, which were started indoors, out into the garden or allotment.

Vegetables to harvest and buy

- Asparagus
- Lettuces
- Radishes
- Rhubarb
- Spinach
- Spring cabbages
- Spring onions

Recipes

[Layered Dessert](#)

[Options](#)

[From Best - Least](#)

[Layered Choc Chiffon with Salted Caramel butter](#)

[Red Velvet Cake](#)

[Raspberry Layered Cake](#)

[Chocolate & caramel ombre cake](#)



Food & Cookery - L2 Pass



Reading recipe to make sure I have ingredients for the recipe and make it easier to cook as all ingredients are on my working area

I am Chopping Peppers to make sure it is ready to be added to sauce after being diced into small pieces to add texture to dish. I used the bridge and claw technique and a paring knife.

Washing hands and dishes in warm soapy water to reduce spread of germs and allow for equipment to dry on the side



Ingredients for meatballs are ready to be mixed together with hands. Here, I have beaten an egg and got my mince ready to be mixed into meatballs.



I am dicing onions into small pieces ready to be added to my sauce while my meatballs are cooking. Small pieces of onion give texture while also not having a crunch

I am adding my sauce mixture to the pan after I have taken my meatballs off the pan.

I am simmering my sauce and adding my vegetables. Simmer until soft and the sauce thickens.

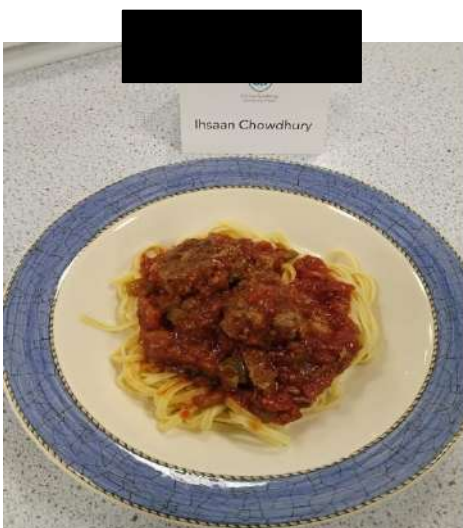
Task 2b -Evaluation - [Redacted]

[Redacted] (Student)

I think that my meatballs and pasta went well because my dish was sweet and spicy. I could have reduced the amount of sugar in my dish or replaced the sugar with honey for a healthier alternative. Also, I think that the texture of my dish was great because the sauce had a thick consistency and had small pieces of onions and peppers to add texture and improve texture. However, the texture of vegetables may be unsuitable for the children so I could have blended my vegetables to make it a smoother texture for the children. The sauce had a sweet smell and can also attract children to eat the dish, incentivising children to eat it. However, I think that the aesthetics of the dish was good but could have been improved to be more appealing for the children as the meatballs could have been shaped better. The meatballs were full of protein as beef is high in protein and iron as it is a red meat. Iron is good for red blood cells and oxygen intake allowing for a better capacity to exercise. The pasta was a cooked well and is full of insoluble fibres and complex carbohydrates that will keep you fuller for longer. This would let the children keep doing exercise and stay full during intense exercise. The insoluble fibres help with digestion. The sauce has 2 of your 5 a day from the tinned tomatoes and peppers. The pasta had a soft texture. Also the dish had a sweet aroma from the sugar and the taste was sweet.

My final thought on the dish was that it had a nice thick consistency and soft vegetables. The pasta was soft and fully cooked through and still had a sweet smell from the sauce.

Although the dish was nice I could improve it by roasting the vegetables to add more flavour and give it a better texture. I could have added more vegetables to make the dish more healthy.



My final dish I layered my meatballs on top of my spaghetti and served on a decorative pasta bowl.

Food & Cookery - L2 Pass

Menu and action planning for a two course menu

1) Tomato Penne with Avocado

<https://www.bbogoodfood.com/recipes/mexican-penne-avocado>

2) Flapjack

<https://www.tamingtwins.com/how-to-make-flapjacks/#wprm-recipe-container-8989>

I have chosen to make tomato pasta with avocado for my main because of its complex carbs that will provide a long lasting energy source for an active individual. The good source of carbohydrates is good for the intense activities they will have to do in the activity centre. The vegetables are rich in vitamins and minerals and are part of your 5 a day needed for a nutritional balanced diet. For my dessert, I have chosen flapjacks because of its high protein content that is good for the growth and repair of muscles. In an activity centre it's important to have a high protein intake for the growth of muscles, it is important to have protein in their diet as well as a source of carbs. Although the flapjacks may have sugar in them, it is important to recognise how simple carbohydrates are important for that quick energy source. Both dishes are suitable for a vegetarian working outdoors in the activity centre giving her the energy and strength to get through the day.

Original	Amended Recipe	Why
Rapeseed oil	Fry Light	Fry Light is low in calories and fat therefore making it healthier to cook with.
Vegetable bouillon powder	Vegetable Stock	Easier to source and easier to use into my dish's sauce base. This added an extra layer of flavour behind the tomato sauce. This therefore added a layer of sophistication to my dish.
Avocado	No Avocado	Avocados are expensive but highly nutritious. In this case the high price was unnecessary for the low budget of the activity centre.
Chocolate	remove	There is enough sugar in the flapjack this will give her the burst of energy she needs. Chocolate is expensive so this will save on cost.

Task 3a - Menu and action planning for a two course meal
Ihsaan Chowdhury

Dish name: Tomato penne with avocado & Flapjacks		
Ingredients		Equipment
Tomato penne with avocado (serves 2) <ul style="list-style-type: none"> 100g Wholemeal Penne Fry light 1 Large Onion 1 Orange Pepper Garlic Puree 2 tsp mild chilli powder 1 Tbsp Lemon Juice ½ tsp cumin 400g Chopped Tomato 196g Sweetcorn 1 cube Vegetable Stock 1 Avocado Handful of Coriander(to serve) 	Flapjacks (serves 4) <ul style="list-style-type: none"> 225 of Butter 150g of Golden Syrup 150 Soft Light Brown Sugar 450g Oats 	Square Baking tray Saucepan Wooden Spoon Chef's/Paring Knife Glass Bowl Parchment Paper Saucepan Frying pan Chopping board Chef's knife/ Paring knife wooden spoon plate to serve
Time	Method/Sequence	Special considerations Health and safety

5m	<ul style="list-style-type: none"> Put Bags away Get 3 towels to avoid cross contamination 	Avoid tripping over any bags by putting them out the way
5m	<ul style="list-style-type: none"> Wash Hands with hot soapy water. Clean surfaces Get equipment 	Make sure there is no cross contamination by washing equipment in between uses
5m	<ul style="list-style-type: none"> Preheat oven to 170°C. 	Preheat the oven to make sure it's hot and ready to cook quickly.
3m	<ul style="list-style-type: none"> Line a baking tray with baking parchment Slice onions, peppers & avocado into small thin slices 	Using oven gloves is necessary in order to prevent burning my hands.
10m	<ul style="list-style-type: none"> Melt butter, sugar and golden syrup in a pan until sugar is fully dissolved Meanwhile heat oil over medium heat 	Use a sharp paring knife because it is safer than a blunt knife.
10m	<ul style="list-style-type: none"> Add sliced onion and peppers and still frequently for 10m until golden brown 	Line baking tray to make sure the flapjack doesn't stick to tray
12m	<ul style="list-style-type: none"> Remove from heat and add Oats and salt Coat all oats in mixture Pour Oats into baking tray and flatten 	Melted sugar holds flapjack together as it allows for a stronger, more firm flapjack
20m	<ul style="list-style-type: none"> Stir in the garlic and spices, then tip in the tomatoes, half a can of water, the corn and the stock. Cover and simmer for 15m Toss the avocado with the lime juice and the finely chopped onion 	Make sure to not overfill the sauce pan when boiling chocolate because the water can spill out
20m	<ul style="list-style-type: none"> Bake in Oven for 20m Melt chocolate in a glass bowl over boiling water Cook the pasta in salted water until cooked 	Making sure to control temperatures is important to make sure nothing burns or overflows not leaving anything unattended.
5m	<ul style="list-style-type: none"> Let Flapjack Cool Cut into squares and serve after adding melted chocolate 	Use garlic paste instead of fresh garlic cloves.
5m	<ul style="list-style-type: none"> Drain the penne and toss into the sauce with coriander. Spoon pasta into bowls. top with avocado and scatter coriander leaves 	
10m	<ul style="list-style-type: none"> Clean dishes and surfaces 	
110m		Flapjack must cool before cutting to keep it's structure.

Food & Cookery - L2 Pass



Picking my ingredients ready to start cooking, bringing them to my work area, ready to be prepared

Here I diced my vegetables into small cubes using the claw techniques.



I poured my oat mixture into a lined greaseproof baking tray to get ready to put it in the oven



I was waiting for my pasta to simmer, while making sure my pasta wasn't over boiled and chocolate wasn't melted.



Letting my pasta sauce simmer to thicken



I washed my dishes while my flapjack was in the oven and my pasta sauce was simmering



Letting my flapjacks set ready to be cut for when it's cut into servings



Here i was drizzling chocolate onto my flapjack for aesthetics and extra taste from the chocolate



I weighed my ingredients for the oats ready to heat up for the flapjack with the right proportions

I melted my butter ready to mix with my sugar and golden syrup
I turned my pan handles to the side and used a wooden spoon because it doesn't conduct heat. I also had to control my temperatures to avoid spitting and burning me.



Here i cut my flapjacks into small pieces ready to serve into suitable pieces for plates



Here I mixing my pasta into my pasta sauce coating my pasta in sauce giving a flavourful bite in every bite.



Here I plated my pasta and have my flapjack placed on a small plate. Here I garnished it with cheese to make it look more appealing

Food & Cookery - L2 Pass

Task 3C - Evaluating a two course meal

I chose a pasta recipe for my main meal as it is a cheap dish with vegetables and many nutrients for active individuals in an activity centre. My dessert was a flapjack chosen to involve a sweet aspect for the dish making it more appealing to younger children who usually prefer . The sugar in the dish acts as a source of energy while the oats are full of protein that allow for the growth and repair of muscles as they are growing children that are still growing. Both dishes meet the requirements as they both are high in protein, and don't have meat. This would make it suitable for a vegetarian that cannot eat meat. This is also suitable as the sugar is suitable for the students and staff as they are doing high intensity exercise and require a higher energy intake. This gives the students and staff that burst of energy they need to continue with their day after only having a light lunch. The pasta is a complex carbohydrate that will keep them fuller for longer. The tomato sauce of the pasta is one of their five a day as it is a vegetable and can help with nutrients. Onions contain Vitamin C which has benefits on skin. Peppers have Vitamin A (which helps growth and repair, Vision) and Fibre which helps digestion. Oats are a source of complex carbohydrates and fibre that allows for better digestion and keeps you fuller for longer.

I used the claw technique for chopping my peppers and onions into smaller slices so they were ready to cook into my sauce. I also had to simmer my sauce to thicken it into a nice and thick sauce ready to eat for the pasta. I boiled my pasta on the hob. My flapjacks had to bake in the oven until golden brown. After this I had to let my flapjack set and cool then cut into small pieces ready to serve. While this was happening I used a bain-marie to heat my chocolate into a smooth creamy consistency. I dovetailed my dishes so they were all ready at the same time and presented them on nice white plates that made the colours of my dishes stand out.

Overall, I think that my main dish was cheap, budget friendly. I think that my pasta ended up being firm (al dente) while having a spicy base while also having a sweet burst of sweetness from the sweetcorn with bright colours that made my dish aesthetically pleasing. The pasta had a spicy aroma that wasn't too overpowering. I also think my flapjack was nice and sweet with a golden brown colour that had a crispy crust with a firm centre maintaining its shape. The chocolate enhanced the flavour of the flapjack that was sweet and rich. The dish was a balance of sweet and savoury as it incorporates the savoury and spicy flavours and the sweetness of the flapjack as a dessert. The flapjack also had a sweet aroma and could be pleasant to kids and adults as they would smell the sweetness.

However, my flapjacks were too sweet. Next time I could use less sugar or add dried fruits that have natural sugars. I could also use natural sugar such as honey as a better alternative. My pasta dish would benefit from a meat substitute such as Quorn but I decided against this because of my budget as Quorn is very expensive but it's a source of protein to make the dish more nutritional, a healthy balanced diet.

I gave some of my dish to a friend who said the pasta had bright colour and had a firm texture that felt filling. He said my pasta was quite spicy but not too overpowering while having the sweetness from the sweetcorn helped with the spice. He also said the flapjack was filling and was a nice sweetness where 1 piece was sweet enough. They also said the

flapjack was firm and looked appealing as it was golden brown. My teacher loved the texture and sweetness of the flapjack and commented saying that you would only need a small piece of the flapjack. The pasta was delicious and nutritious for a vegetarian.

I improved the dish by removing the avocado to reduce costs and make the dish more affordable and allowing the dish to follow the budget. Although the avocado was bright and would add colour it is unnecessary for the dish as it doesn't add more flavour. Also I changed Vegetable bouillon powder to vegetable stock as it is easier to incorporate into the dish and is easier to source as bouillon powder is more concentrated and is more flavorful. In this case it can be considered overpowering as a base and would be harder to work around if used incorrectly. I also had to consider the thickness of the sauce as a thin sauce wouldn't go well with pasta as a thicker sauce is able to stick to the pasta and would be better for a more flavorful bite and more even seasoning. By thickening the sauce it also concentrates the flavour into the pasta.

The presentation was taken into consideration when plating the dish by mixing the pasta into the sauce. This gave the dish a more complete look because the pasta was fully coated in sauce and the sweetcorn was evenly spread making the dish more vibrant. I also spread some cheese on top to make the dish more aesthetically pleasing. The flapjack was cut into smaller rectangles and was also drizzled with melted chocolate for a more aesthetic appearance and I baked it until golden brown. When serving the pasta I used a plain white bowl to make the colour stand out more and make the pasta look more vibrant.



Ihsaan Chowdhury

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

<https://www.bbcgoodfood.com/recipes/john-whaites-chocolate-chiffon-cake-salted-caramel-butler-cream>

<https://www.bbcgoodfood.com/recipes/easy-millionaires-shortbread>

<https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/nut-allergies>

<https://www.nhs.uk/conditions/food-allergy/>

I have chosen a Chocolate Cake with a salted caramel icing because it is a skillful recipe that is able to be made in the given time. It is a layered dessert that has piped ganache on it. It has a double layer of sponge cake that is fluffy and light with the caramel icing to hold it together. The piping ganache is perfect for aesthetically pleasing designs. I also have chosen the dish because it is nut-free.

I have changed the dark chocolate to milk chocolate because the dark chocolate is too rich in flavour and will double the amount of ingredients to my chocolate cake batter to make a 4 layer cake with 3x as much salted caramel icing to hold it together



Here I am wiping my surfaces ready for the practical to reduce cross contamination.

Here I am creaming my butter and sugar with a whisk to start making my cake batter to give a better consistency.

I am cracking my eggs into a small bowl and putting the egg shells into another so I can add it to the cake batter to reduce risk of cross-contamination.

Here I am beating my eggs to prepare to mix into the cake batter.

I have whisked my cocoa powder into the batter and am now greasing my baking tins with butter and flour to stop the cake from sticking to the cake tin.

Here I am adding my buttercream on my cake layer to prepare to add my second layer to make my cake more spectacular.

I have piped some buttercream on top to make the cake more aesthetically pleasing.



Food & Cookery - L2 Pass

Task 4b Evaluation

I have made a layered chocolate cake with fresh cream because it is spectacular. It had a rich fluffy texture with a sweet and rich sponge cake with a sweet filling. The dish is suitable for the instructor who has a nut allergy. The dish is full of simple carbohydrates that give a short-term energy and give bursts of energy. However the dish contains no natural sources of sugar and can spike the sugar levels in the blood of consumers. The cream of the cake was light and sweet that complimented the rich chocolate taste of the sponge cake. The eggs in my dish are a source of protein that allows for muscle gain and repair. Sugar is a source of simple carbohydrates which gives energy. Flour is a source of complex carbohydrates keeping the instructor fuller for longer. The double cream is a source of dairy in the dish which has calcium allowing for stronger bones. Moreover, the dish contains no nuts and should not set off any allergies for the instructors. I checked all the packaging and no nuts were present in the environment I baked it in to make sure there was no allergic reaction.

I think that my layered dessert went well as my dessert was light and fluffy in texture while still having a rich flavour. The texture of my cake was light and fluffy like a sponge cake should as it raised in the oven. It retained its texture after cooling and having buttercream on top. The rich flavour of the dish complemented the sweetness of the buttercream filling. The cake had a sweet aroma to the dish overall.

However the cocoa could be seen as overpowering and too rich. The appearance of my dish could have been improved by piping more cream on top of the cake and adding more layers. Unfortunately I didn't weigh out enough ingredients to make a third layer so I had to keep it to 2 layers to follow time constraints. Next time I should weigh out more ingredients and follow my timings better. A higher layered cake would have improved the appearance overall as it would be more spectacular.

Overall, my dish was good but has many places to improve and adapt. People's opinions of my cake were that my cake looked appealing and wanted a slice. The feedback I received was a majority of the sweetness of the dish and the rich flavour of the cake. I was also told the cake was moist and retained its moisture and didn't go dry.

Geography

Case Study - River Flooding

What?

- Major river
- Flow - High Conwy
- Mountainous catchment (precipitation)
- Basin of Conwy
- Flow - Conwy

- High precipitation 136mm
- In less than a day (7.5h morning catch)
- Deposition little interception



In March 2014, Storm Colin + Wales + England
 - Because of this it rained for 2 days
 For flooding returns on 16th March
 For flooding time was 9pm

Causes

- 40 houses were completely flooded
- From 1000 AMB was blocked
- Caravan park, farms and business closed
- Blocked from flooded cars
- Planning needed (conwy valley line)
- Slow down old
- Spill of decline
- Mental health, physical health - low

Economic

- lost work
- lost business
- lost tourism



9m flood wall to protect the town

Solutions

- Immediate responses - Emergency council
- Rescue - Emergency services
- Flood defences at dams

Total cost = £7 million

Area Management Schemes

- Apporestation 5000 trees intercept rain + reduce surface runoff
- Environment had more water - 3m (didn't work)
- Floodplain zoning only farmers allowed

Friday 5th December 2025

River Conwy Flood Management

Recall:

Flooding in the river Conwy is caused by high precipitation and saturation. The soil is impermeable so water cannot be absorbed - it percolates.

Exam Question:

You have studied a flood management scheme in the UK.

Explain (why) the scheme was needed + how it works. (4 marks)

(2 marks) The river Conwy floods was in 2014, which caused the main road to close, to cross down, there is a signpost because car could not get through.

(2 marks) In response they planted trees (apporestation) for example 5000 trees, this works by reducing the rain and reducing surface runoff.

Study Figure 4, photographs showing some of the impacts of extreme weather in the UK.

Figure 4



Low winter temperatures and lower snow in some areas have increased the risk of mountain fires - increased along with fires



Higher rainfall and more storm events have increased the risk of flooding.

(40) houses at risk

Exam Q: "UK weather is becoming more extreme". Do you agree? Use fig 4 and your own understanding (6)

The UK weather is becoming more extreme causing more fires. For example, in figure 4, drought has caused widespread wildfires in the mountains. This is extreme because unusual fires will cause major loss of habitat due to the unusual, high temperatures. This means that climate change can contribute to wildfires occurring more often and a loss of species.

Another reason I agree is flooding. For example, thunderstorms and rainfall have caused major rainfall caused flooding as seen in figure 4. Another example of this is the Conwy floods. This is extreme because floods can cause injuries + deaths, putting civilians lives at risk. It can also cause infrastructure loss, for example, the Conwy floods caused 40 houses to be damaged. This means that this irregular and unusual

Wednesday 20th January

How can we manage climate change?

RECALL

- 1) Anterctica The arctic ✓
- 2) Ice has melted ✓
- 3) More agriculture leading to the release of methane and causing an enhanced greenhouse effect ✓

Mitigation = To reduce the severity/seriousness of something.

Adaptation = Changing peoples way of life to avoid something.

Exam question = Explain how alternative energy + planting trees may help reduce climate change. (6)

(We do) Alternative energy may help reduce climate change by using renewable energy. For example, we could use energy such as solar, wind, and hydroelectric. This reduces the greenhouse gases (such as CO2) this means that the solar radiation will not be trapped. This mitigates the enhanced greenhouse effect.

Another way is afforestation. For example, planting 5000 trees can absorb the CO2 that is released from the car in 10 to 50 years. This mitigates the CO2 in the air as the trees absorb the CO2 trapped in the atmosphere and convert it into oxygen through photosynthesis, using as a carbon sink.

Health & Social Care - Merit

Health and Social Care

COMPONENT 1: Human Lifespan Development

Task 1 – PIES growth and development through the life stages

Throughout this task I am going to explain how a human will develop through the stages of physical, intellectual, emotional and social development through both infancy and early adulthood.

Infancy:

Is where a newborn ranges from zero and two years old.

Physical development:

Physical development is all about the changes that happen to the human body that is typically about growth, development and hormone changes.

0-2:

A newborn (from 0-2 months) will not be able to lift the head because it is a hefty weight and a newborn will need support from whoever is holding them. The muscles that are not yet strong enough to hold their own head up on their own are the muscles that are not quite strong in their neck and back muscles.

A newborn nervous system has not yet fully developed and won't fully develop until they are twenty five years old. A newborn will not be able to lift their own head for quite a while but they will start to show signs when they are one to two months.

2-4:

At (2-4 months) infants will notably start to improve their head control and the muscles that will help them strengthen are the upper back, neck and chest area. The muscles that allow this to happen are trapezius and sternocleidomastoid muscles and having tummy time will help the

infant to hold their own head up even though it will take some time they will get there eventually. Now at (2-4 months) an infant can not fully push themselves up but is trying to like when they are in tummy time laying on their stomach they will try and push themselves up but they cannot fully do it yet.

4-6:

At (4-6 months) a baby will try and sit up but they will not be able to do it fully independent until they are between (6-9 months) a baby requires to be able to sit up are neck and head control and to help you could try tripod sitting.

The main muscles that help with sitting up are abdominal muscles and hip muscles. The baby is developing a lot of stronger muscles e.g. muscles in the neck, abdomen and hips all of these muscles help strengthen their torso which will allow the baby to stay in an upright position. Many infants will start to roll over from her tummy to their back around when they get to about (4-5 months) and once their back neck and arms are strong enough they will start to lift their head and start to push during some tummy time.

6-9:

An infant will generally start to show signs of trying to crawl from around (6-10 months) but many infants will start a bit later around (7 months).

Infants will start to learn gross motor movements from 0-3 = lifting their head 4-6 = rolling over and sitting up with support and 6-9 = months sitting up unsupported and beginning to crawl or bear crawl. An infant's mobility will start to develop postural control. An infant will start to pull themselves up onto their feet but won't be able to stand up on their own until they are between (9-12 months). An infant can learn how to stand up from gradually practicing with them by holding them up on their feet and steadily learning to stand with patience. You don't want to rush them into standing too soon.

9-12:

A baby will notably start to try and take steps like pulling themselves up and then processing to move their feet and legs and will start to walk a little bit around the age (9-18 months). A baby will need to develop properly in order to start walking so they don't injure themselves and have the proper muscle strong enough to do it. The key muscles a baby needs to start to take steps without hurting themselves are leg muscles like quadriceps hamstrings calves and hip muscles. Fine motor skills are small movements a baby will make with their hands fingers and maybe their feet. A fine motor skill a baby might have now are beginning to pick up small objects using their fingers and thumb

12-18:

An infant will start to climb between (9-12 months) and will try to start to climb between (12-18 months) but won't fully be able to run properly until they are (18-24 months). An infant will notably see a change in their core muscles strength and improve a lot of coordination. An infant will typically start to transition from crawling and cruising to independently walking or showing rapid improvements in balance coordination and confidence in mobility.

18:

A toddler will start to develop some complex eye movements typically from (12-18 months) but we might start to notice them until they are around (18-24 months). A toddler will have developed a wide range of language skills, emotional skills and showing growing independence and a wide variety of communication and motor skills.

Early adulthood:

In early adulthood it ranges from 19 years to 45. People will most likely reach their peak physical fitness around their mid 20s to their mid 30s. Peak physical fitness means when you achieve your personal best condition when you reach your best performance in your strength, speed and stamina your fitness levels are high in early adulthood for e.g. your strength, agility and endurance.

People reach their peak physical fitness in their mid 20s to 30s. This will affect their body by increasing their resistance and their active metabolism is for your weight and a strong foundation and live a strong and very healthy life by reducing the risk of a chronic heart disease. These will affect your body having a high fitness boost and it will help you mental health and your overall well being and it will help prevent gaining weight and maintaining a healthy weight. Young adults are not all at their full height but some people reach their full height in their late teens. Young typically take up hobbies of being creative like art e.g. painting, drawing outdoor hoodies like hiking, sports fitness yoga. This can affect the body by calming your body and reducing stress. Many people will start to have babies in their mid 20's to early 30's.

A woman's body when they are going through pregnancy will cause an increase in blood pressure/volume and get symptoms of morning sickness, back aches and a change in skin pigmentation. Pregnancy hormones will cause changes such as breasts and morning sickness. In pregnancy fitness doesn't have to be hard, it just might be a bit tense and getting used to fitness during pregnancy. Having a baby will always cause you to have natural fatigue due to not having any sleep and a lot more increase of physical and emotional energy and pain. Yes fatigue will lead to a reduction in physical development. Losing muscle can be a natural part of aging, leading to a slower metabolism. They will if they are young but when they get older they will not need to be held they will just want to. Carrying your baby can lead to tension and pain. You might see a decline in your health and energy and activity levels. We might see a decline in physical health for example your strength. The ageing process in health and social care is emotional changes and physical dynamics. The signs of aging we might start to see are fine wrinkles, dull skin, dry skin, dark spots and rough skin texture. People will typically start to get grey hair around the mid 30's and will reach full head natural grey hair. People develop grey hair primarily due to a decrease in melanin production in hair follicles as they age, influenced by genetics.

How Physical development Have Changed From Infancy To Early Adulthood

In infancy their eyes colour when they are born are grey because their protective pigmentation has not developed and will not start to change until the irises are ready to start to change. After 6 months the eye colour will change to their permanent eye colour for the rest of their lives. In contrast, in early adulthood the eye colour will never change; it will stay the same colour for the rest of their lives. In infancy a baby will not be able to do any sports because their gross motor skills are not yet developed enough and they can hardly walk. However in early adulthood they will have better organisation of their motor skills and will be able to participate in sports and activities. In infancy the hair colour will be one colour but it will still change whereas in early adulthood you will have your permanent hair colour. In infancy babies will experience rapid growth and gain quite a bit of weight however in early adulthood they will grow by experiencing physical growth. In infancy, the skin is exceptionally smooth, plump, and elastic due to high levels of collagen and hydration, showing no signs of fine lines or wrinkles. Whereas in early adulthood, although the skin still retains much of its gradual decline in collagen production, increased

exposure to sunlight, stress, and lifestyle factors such as diet and sleep begin to contribute to the earliest appearance of fine lines especially around the eyes and mouth marking in the transition from pure biological growth to the initial stages of aging. In infancy, the ability to recover quickly from illness is largely dependent on their mother especially through breast milk and antibodies passed during pregnancy alongside a rapidly developing immune system that is still learning to recognize and respond to an illness whereas in early adulthood, the immune system is fully matured and shaped by years of exposure to various viruses and bacteria, allowing for more efficient and targeted responses to illness.

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Intellectual development:

Intellectual development includes the change to the brain, memory and learning new things, knowledge and skills.

Infancy:

Learning to speak is called language development or language acquisition. Babies typically try to communicate through crying and smiling. Babbling is a stage where babies try to make words out but it comes out as a variety of different sounds. Babies will babble because it's their way of talking and their parents will try and teach them to talk by making sounds a baby's copying them. Crying is a type of language because when you cry people around you can tell that you are either upset or in physical pain. Babies will cry to let people know that they want food or attention or they are in pain e.g. teething. When a baby starts to coo it refers to a soft sound where a baby will start to make between the age of 2-4 months. A baby will coo because they want to start to develop the vocal cords and their different sounds. A baby between 6-12 will communicate by saying sounds and babbling e.g. ba-ba-ba or da-da-da or if they want something for example a toy they will point at the thing they want. A baby will probably now be able to say mama and dada or hi or bye bye. This will help their communication skills improve by being able to connect sounds to a meaning and realising that their words can represent objects or actions. By 12-18 months a baby's communication will be able to say up to 10-20 words clearly like dog-cup more and milk and even more. A toddler will become surprisingly good at getting their points across by smiling or throwing a tantrum. People who are at their most fertile means when a girl will get her period in their menstrual cycle and when a woman can get pregnant. Babies will learn to focus their vision and the muscles in their eyes strengthen with practice. New babies can see but their full vision is not yet very focussed but it will gradually over the first few months. For a baby to be able to hold a gaze can be a significant milestone for a baby's development. A new born can only see things clearly from about 8-12 inches which is the same amount of distance of the person holding them and right now they can only see short term. Newborns can see objects but it is very blurry and really not detailed. A new born can see colour but the ability to recognize what color is not yet in the vocabulary. Babies learn to eat and chew solids from around 6 months old. Babies will learn new things all the time but they will learn a lot from their parents and by watching programs on the tv. Babies will automatically know how to eat because of their rooting reflex.

Early adulthood intellectual:

During early adulthood, the prefrontal cortex continues its complex process of maturation; this means that your prefrontal cortex will go through the final maturation, leading to functions like planning and decision making. Yes synaptic pruning is a normal thing to carry on happening in early adulthood but it will start in childhood and adolescence.

Synaptic pruning is a natural brain process of eliminating weak or unused synaptic connections. Yes young adults are capable of applying knowledge especially when they will go to get a new job or when you get a house this means that young adults are capable of new skills or learning new information e.g. taxes. Yes, problem-solving skills can and are refined over time through consistent practice. This means that young adults are capable of problem solving for example in a shop you might not have enough money so they will put something back even if they don't want to. Around when you get to 18 years old you will probably go to university and it is very common for people to go to university later on in life around 21. People will tend to learn in university and will learn new skills like business or science. People will most likely move away from home for uni to get a taste of living with new people and to get the experience of living on your own. Live on your own you will need skills like cooking, cleaning, and laundry, and financial management like budgeting and bill payment. Most people will learn new life skills for example time management, budgeting and financial independence, communication, problem-solving, self-sufficiency, and resilience and learning to live with people you might not like. After people have finished uni they will start to get a career in their early 20s and people will learn how to drive and if someone in your family passes away you will have to learn how to plan a funeral. Also around your mid 20s you might start to think about starting a family and getting a dog and a new house and even a new car. People will most likely learn in their first job is their development of communication will other people and team work along with problem-solving skills.

How intellectual development Have Changed From Infancy To Early Adulthood

In infancy, vocabulary is limited to basic sounds and gestures, memory is short-term and tied to immediate experiences, and learning occurs with imitation, with information processing being slow due to immature neural connections. Problem-solving is minimal, often relying on trial and error or caregiver support. In early adulthood, vocabulary is expansive and abstract, memory is more organised and long-term, learning is intentional and strategic, and information is processed quickly and efficiently. Adults can solve complex problems using logic, experience, and reasoning, reflecting the full maturation of the cognitive system. In infancy babies will struggle to problem solve due to their cognitive system not fully developed, however in early adulthood adults find it pretty easy to problem solve since they have done it for quite a bit of their lives so it will come easily to them. Brains will continue to change across the entire lifespan, though the nature and pace of those changes differ significantly between infancy and early adulthood. Learning does not exactly "slow down" in either infancy or early adulthood it simply changes in nature and mechanism. In infancy, the focus is primarily on learning new skills rather than refining existing ones. Babies are building foundational abilities for the first time such as grasping objects, crawling, forming words, and recognizing faces; however, in early adulthood, the emphasis shifts toward refining and mastering skills that were learned earlier. Adults fine-tune motor coordination, deepen emotional regulation, and sharpen cognitive abilities like reasoning, memory, and problem-solving. Infants are not formally in education yet, but they are constantly learning through informal, experience-based interactions. In contrast, early adulthood typically involves structured, formal education, such as college, vocational training, or workplace learning.

Emotional development:

attachments and bonding

Babies are born with attachments to their mum and their dad because when they are in the womb. Attachments with children make them feel safe, secure, and understood. When babies are hungry they will cry or point. If the baby is frustrated it could make the baby feel overwhelmed and they will probably start to throw a tantrum to tell people what they want. Yes a baby can feed themselves. Self-feeding is a milestone for a baby. When a baby gets fed they will typically feel satisfied. A baby will typically need to be fed quite frequently due to their small stomachs.

Playing with toys:

A baby when playing with a toy will most likely feel joyful, curious and a sensory-experience. When a baby has a toy taken away especially one they're are happy playing with it they will most of the time get emotional and throw a tantrum. Babies feel upset, confused, or frustrated when a toy is taken away because their emotional and cognitive systems are still developing

Social interactions:

Babies will interact with many people but they will most of the time interact with mum, dad and other parts of the family or if they are in nursery when making friends. A baby will might not like getting to know more new faces but it will help with social interaction and getting to know new voices. A baby will show if they are happy by smiling or laughing. Social interactions between infants are better with a baby- to-baby then a baby to adult. When a baby learns something new like taking their first steps they will be proud and happy with themselves.

Starting nursery:

A child will be excited to go to nursery to meet new people and to make friends and to learn new things and a new teacher. Children are naturally wired for wonder, so their excitement can be sparked by even the simplest things like going to nursery a child might be scared to start nursery because they might not want to leave their mum and dad. A child might show that they are scared by when they see a new person hide behind their parents. A parent will help their child to go into nursery by saying it will be ok or bribing them.

Reading emotions:

Babies will start to show being able to read other people 3-6 months. A baby will feel happy and proud because someone has smiled and they will think they have done something funny. A baby will feel scared, or upset when they see someone angry. Yes a baby is probably going to feel confused if they see someone angry. They might feel confused because they don't know why they feel like that or if they might have done something wrong.

Early adulthood:

Early adulthood is a transformative stage where individuals refine their emotional regulation-the ability to manage and respond to emotions in healthy ways. Emotional regulation helps people stay calm under stress, express feelings appropriately, and make thoughtful decisions. As the brain matures and life experience grows, young adults become better at handling emotions and often develop more effective coping strategies such as journaling, exercising, seeking social support, or practicing mindfulness. Alongside this, they begin to learn emotional intelligence, which is the ability to recognize, understand, and manage their own emotions and those of others. Many young adults also begin searching for intimacy, which refers to close, trusting emotional and physical connections with others. Intimacy is a good connection or bond with a trusted person. Intimacy fosters emotional development by providing emotional safety, building trust, and reducing loneliness. Starting a young adult may want to start a long-term relationship

this will make them feel secure and connected. These feelings will stem from a desire for shared experiences and mutual support. Breakups and loss of connection can evoke a wide range of intense emotions, including sadness, grief and anger. Other life events that might happen in early adulthood are finishing uni and moving out of your parents and getting your first house and getting a stable job that you might want for the rest of your life. All of these life events will probably make them feel happy and good to have accomplished one thing that they have always wanted to do. If a person buys their first car this will give them a proud sense of freedom and independence. It grants individuals the freedom to go where they want, when they want, without relying on others.

How Emotional Development Has Changed From Infancy To Early Adulthood

Emotional development in infancy and early adulthood reveals both shared foundations and striking differences across key areas. In understanding emotions, infants feel basic emotions like joy, fear, and anger but cannot label or interpret them, however in early adulthood they can recognize, reflect on, and differentiate complex emotions such as guilt, pride, or empathy. When it comes to reading emotions, infants rely on facial expressions and tone of voice to sense others' feelings, often responding instinctively, whereas adults use verbal cues, body language, and social context to interpret emotional states with greater accuracy. In terms of regulating emotions, infants depend entirely on caregivers to soothe distress, lacking self-control, while adults develop internal strategies like reasoning, mindfulness, and emotional distancing to manage their feelings. Although both age groups experience the same core emotions, the ability to understand, read, and regulate them evolves dramatically, shaped by brain maturation, social experience, and cognitive growth. Infants are just beginning to develop emotional awareness. They experience emotional contagion, meaning they may cry when another baby cries, but they don't yet grasp that others have separate feelings or perspectives however in early adulthood have the cognitive tools for empathy such as perspective-taking, emotional regulation, and theory of mind they may still struggle due to factors like stress, emotional immaturity, or unresolved attachment issues. For example, someone with an avoidant attachment style might find it hard to connect emotionally, even if they intellectually understand others' feelings.

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Social development:

Communication (infancy)

From birth, babies communicate through crying, facial expressions, and body movements to express things like hunger, discomfort, or wanting comfort most of the time when they want their mum to comfort them. In the first three months, they begin cooing, smiling, and making eye contact, which encourages emotional bonding and trust. Between 3–9 months, babies develop more intentional communication, such as babbling, gesturing, and responding to voices, with eye contact and this plays a key role in building secure relationships and mutual attention. By 9–12 months, they may point, imitate sounds, and use simple gestures to interact with familiar people beyond their mum and dad. When babies show interest in objects or activities their parents can strengthen their bonds by engaging them with you so they can start to want to play with other children, not just toys. From 1–2 years, toddlers begin using words, short phrases, and even basic conversations, allowing them to build relationships with siblings, extended family, and others in their social world.

Building a bond:

Babies need to build strong bonds mainly with their parents. These bonds form the foundation for emotional security and healthy development. To ensure a safe bond, parents must respond consistently and sensitively to their baby's needs, offering comfort, affection, and protection. When a child does not form a bond with their parents, it can lead to emotional difficulties, trust issues, and challenges in forming relationships later in life. A secure attachment is when a child feels safe, understood, and confident that parents will have to make them feel safe and secure. If a baby doesn't form a bond with their parents it can lead to emotional difficulties and trust issues and challenges in forming relationships later in life. A secure attachment is when a child feels safe, understood, and confident that their caregiver will meet their needs. Parents foster secure attachments by being emotionally available, engaging in eye contact, physical closeness, and responding warmly to their child's cues creating a reliable and loving environment where the child can live happily.

Parallel play:

Parallel play is when babies or toddlers play side by side without directly interacting with each other. This usually begins around 18 months and continues through early childhood. During parallel play, children may use similar toys or mimic each other's actions, but they remain focused on their own activity. Although it may seem like they're not engaging socially, this stage is important for learning how to be around others, observe behaviors, and develop comfort in shared spaces. Over time, parallel play helps lay the foundation for future relationships and cooperative play.

Early adulthood:

In early adulthood, individuals form a wide range of relationships; from friendships and romantic partnerships to school connections. A key focus during this stage is the search for intimacy, which refers to deep emotional closeness and trust that can exist in both romantic relationships and strong friendships. If intimacy is difficult to achieve, it may lead to isolation, a sense of emotional loneliness and disconnection. At university, young adults meet peers from different backgrounds, expanding their social circle and often forming lasting bonds. To thrive socially, they must adapt their communication skills to navigate new environments and personalities. Moving away from home can shift the parent-child dynamic, fostering independence while still maintaining a meaningful family bond through regular contact. Many young adults begin long-term relationships, sometimes leading to marriage and children, which further shapes their social development. As they start families, their time and attention often shift toward partners and children, potentially weakening bonds with friends and narrowing their social circle. However, strong relationships can evolve and endure, even as priorities change. Young adults often socialize with their children in places like parks, daycare centers, playgroups, and community events, where they naturally meet other parents and caregivers. These settings offer opportunities to build new friendships through shared experiences and parenting conversations. While they may not see old friends from adolescence as often as they used to due to busy schedules, full-time work, and shifting priorities and when they often form new social connections through their workplace. Colleagues can become friends, especially when they share common interests or support each other through the challenges of balancing work and family life.

How social development Have Changed From Infancy To Early Adulthood

In infancy, social development centers around dependence on parents or caregivers, who provide emotional security, physical care, and the foundation for trust through consistent nurturing. Infants do not yet form friendships but may engage in parallel play, where they play alongside other children without direct interaction, using play as a tool for sensory exploration and early social awareness. In contrast, early adulthood is marked by independence, with individuals forming groups of friends based on shared interests, values, and emotional support. Play evolves into structured recreation or hobbies, often used for stress relief or social bonding. Both infants and adults form relationships, but the nature differs; infants bond primarily with caregivers through attachment, while adults build intimate, romantic, and peer relationships that involve emotional depth, mutual understanding, and long-term commitment. This shift reflects the transition from foundational bonding to complex social engagement. In infancy, children are entirely dependent on their parents or primary caregivers for emotional security, physical needs, and social interaction but in contrast in early adulthood they will not rely on their parents they will rely on themselves but if they need to they will rely on their parents. Their social circle is very small, typically limited to close family members such as parents, siblings, and perhaps a few familiar adults like grandparents or childcare providers however in early adulthood they will have quite a small from say adolescent since they have left school and other social groups including close friends and some that they might have from school like college or uni but not a massive group that you might have had in high school.

History

18th January

How did the mormons see the

west?

- 1) god had white americans to / sent across north america convert indians to christianity
- 2) slaves had a natural inclination to cotton to be filed & it is the right treatment when met in a free protest
- 3) more area for plantations

persecution - hostility all treatment, especially because of race or political or religious beliefs, opposition

polygamy - practice or custom of having more than one wife or husband at the same time

one reason that mormons were forced to move was due to increasingly hostility. This for example, Mormons believed that they could have multiple wives which was also known as polygamy. However, in majority of America, polygamy was illegal. This meant that in 1838 they were forced to move to Illinois, where they could live a peaceful life, which didn't last long.

One reason there was conflict in Brigham's Young oppie

Shawnee. This was because the mormons believed in polygamy american laws. For example, the mormons believed in polygamy is the ^{practice} of having multiple wives. Additionally, they didn't want to slave because it didn't align with their values. However, the compromise was stated that slaves must be freed in 1844. This was a one slave state but there was only one state. This was a conflict because the mormons didn't want to own land, which was declared by the government.

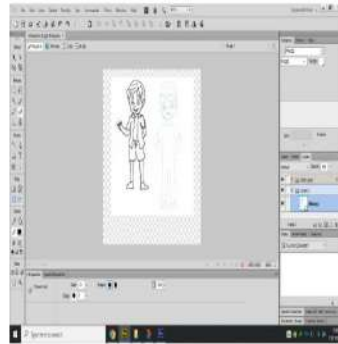
Another reason there was conflict was because of the 1837 massacre. This is because they became so paranoid that there was American troops. However, they killed their own people and blamed on Indians. However, when this was proven wrong Young was forced to resign. This meant that America could implement their laws with firing a single shot.

Expand on resistance

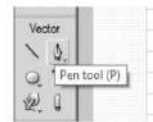
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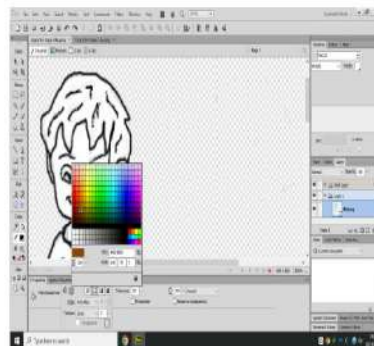
On the left is my second character i will be using in my comic. I also uploaded it into illustrator so i can draw over it.



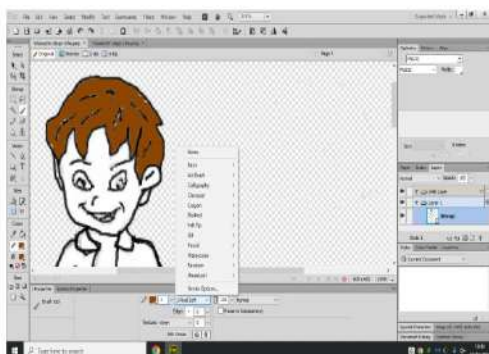
I had to change software to draw over my character so instead of using illustrator i used fireworks. Which in this image i used the paintbrush tool to trace over the paper drawing.



I then used the brush tool to remove any unwanted background leaving me with a perfect image of my character with a crisp outline of my character



I then used the paint tool to choose a colour for my hair in which i chose brown for this character



This is how it looks coloured in i also zoomed in to make sure i didn't leave any white spaces as it may unsatisfy the audience of my comic which are kids aged from 5-9

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I then used this website <https://www.color-hex.com/color/fcf6dc> To find a perfect skin tone for my character in which i chose this hex colour **fcf6dc**



I then painted in the whole character and making sure to fill in all the white spaces also i used the eyedropper tool to make sure that i got the same colour so it doesn't look uneven and weird as it may look weird to the audience in which this case are kids aged from 5-9



I then used the eraser tool to erase out the mouth of the first character to make different facial expressions and movements in this one i erased the mouth to change it to a shocked face, i used the eyedropper tool to fill in the space with the same colour as the skin to make sure it looks perfect

before

after



I then erased the hand to make it seem as if the character looks shocked so i redrew the hand again with the pen tool. here is the before and after

before

after



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Check and review your character and comic

check and explain to what extent the technical properties of your character are fit for purpose

I have made sure all technical properties are fit for purpose such as the image size the resolution of the image and the file type of the image. The size of my image range from 40kb and 300kb the reason to this is some of my characters have way more features than others making the image size larger than others for example some characters use way more pixels due to having a bigger dpi. The resolution of my characters range from 72dpi to 300dpi this is because some characters will use up way more pixels than other characters depending on the image size. The file type originally for all of my characters are psd as photopea automatically saves them as a psd. But to make my images have a transparent background i then export them to a png which makes them have a transparent background.

check and explain to what extent the technical properties of your comic are fit for purpose

As my comic is a way bigger amount of work compared to just one character instead of how my characters file size range from 40kb to 300kb these are way bigger ranging from around 61kb to 3.7mb as there is a lot more work involved in this just for comparison the difference between a kb and a mb is that one mb is 1000kb this shows how much work goes into making the comic than one character . The resolution is dependent on whether it is print or web. the print version of my comic is 300 dpi which is why the size is 3.1mb where as my web version is 72 dpi which the file size is only 422 kb. The file type of my comic automatically exports as a pdf but i can also have the option to export it as a jpeg which is the most common file type tiff which is the most high quality and png which is transparent.

The purpose of my character is that he is the protagonist of my comic. So i have made sure that he is perfect for the target audience , as if my protagonist wasn't perfect and lacked features it would not be appealing to the target audience. Which could lead them into not reading my comic and instead going to read a different comic. So as my target audience are kids aged 5-9 i have styled my characters as a cartoonish style making it more intriguing for the target audience as if my characters were designed like realistic characters it may have backfired into leading kids not reading my comic. Subsequently i have used a variety of bright colours such as red orange yellow. All these colours will invite the target audience to ready my comic. Compared to if i used colours like brown grey and black due to all of them being dull colours it may not attract the target audience. The image size for my character i have made it not to small so it gets pixelated as the last thing i would want is for the target audience to not see my characters clear enough. But also not too big so that it doesn't leave a lot of space. The dpi i have used is 300 dpi as that is the dpi used for printed versions. And the file type i have used is png as it makes the file transparent i didn't use file types like jpeg and tiff as they are not transparent. 3 things my client would like about my character is that i have followed all the rules they have given me such as. I have designed all my characters as wearing outdoor clothes which is one of the requirements my client has given me to encourage kids going to play outside. Also my characters are linked with the outdoors and nature which is the main requirement my client has given me. Furthermore i have made my characters all children friendly as my target audience are for kids so for them to produce it i have made it children friendly.

I have designed my comic to such standard that will appeal my client and my target audience. Such as the style of my comic for example has to be linked with the outdoors and nature which i have done also i have used bright colours to attract the target audience. For my layout i have used a wide range of them as if i were to use the same one for every panel it would start to become boring. So to avoid that i have i have used for example for a wide shot i have used a wider panel for a close up shot i used a smaller panel all to not bore my audience. The font size i have made it at considerately size so my audience can understand all the text as if it were to small the audience would not read the comic. Also the font type i have used is sans serif as serif fonts are not clear which my audience who are kids aged 5-9 would not understand. The colours i have used all represent positive qualities such as the colour yellow is associated with happiness. Furthermore bright colours will attract the eyes of my target audience. The images i have used in my comic all link to the theme of my comic which is to promote kids going outside more. My story is all about encouraging kids to go outside and play which is something that i have been required to do by my client. things the client would like about my comic is that i have used images in my comic which all correlate to the outdoors and nature. Another thing they would like is that i have followed all their rules they have given me to follow. 3 things the target audience would like about my comic is that i have used made the text size in my comic big on purpose as my target audience are kids aged 5-9 it will make it easier for them to see. Another thing is that i have used bright colours all over my comic which would keep them entertained Also the panels i have used are not all the same so to not bore the audience i have used a variety.

Information Technology - Merit

Recommend areas for improvement and further development

explain how you could improve the character you have created

To improve my character the first thing i would do is to redraw it using a different software as all my characters had been made on photopea which is a free software but the downside is that compared to photoshop it lacked a lot of features for example in photopea the pen tool wasn't as smooth enough. Also in photoshop i had the option to create my own pen whereas in photopea it wasn't the case. Another improvement i could have made multiple versions of my characters as i have a total of 4 characters however for two characters i had done 5 versions of them for example a happy version. But for the other two i had only done 2 versions so for an improvement i would have done more versions for all my characters. And the last thing i could possibly have done is add more detail in my characters for example my protagonist noah has by far got the most detail in compared to my other character such as the hair is more visible and i have added details to the clothes he is wearing so that is the last improvement i could do. Interests - kids aged 5-9 would like bright colours as the bright colours would attract kids aged 5-9 also adding more toys would fascinate the kids to keep on reading my comic. Adding food also would make the kids feel happy by reading my comic

explain how you could improve the comic you have created

To improve my comic the first thing i would do is use different speech bubbles for the text in my comic as i have used the same speech bubble throughout the whole comic. Another thing i could have improved is by using a wider range of panels as i have used the same panel more than twice in some pages. and the last thing i could have improved is that is by using a different font as the font i have used is fairly boring and as my target audience are kids aged 5-9 using a more bolder font could be the last improvement i do. Furthermore i could add different shape of panels for example a spiky speech bubble to match the onomatopoeia which in this case could be to signify shouting to make it stand out more which will be intriguing for my audience. I could also add colour in the background of my comic and maybe add highlights to the speech bubble as bright colours stand out compared to a comic with no bright colours so the target audience who are kids aged 5-9 would likely pick up my comic instead of a dull and boring comic with no colours. Reduce the number of words. By reducing the number of words it will make the kids easier to read and make it less of a strain for kids to read. Changing the font of my text. By making my text to sans serif it will make it clear for kids aged 5-9 to understand and easier to read.

explain how your comic and character could be developed further

If my comic and character were to be developed further one thing i would do is add more characters. For example in my comic it only consists of male characters so i have could added a wider range of characters in my comic as right now i only have 4 characters. By adding more characters this would allow the target audience to enjoy my comic even more and not get bored of seeing the same character multiple times. Which would decrease the the likelihood of the audience of stop reading my comic and instead read the whole comic which would help the awareness of of my comic to increase in popularity.

Another things that could be developed further is that i could have used a different software to make the comic as the software i have used to make the comic is comic life 3d. The problem with comic life 3d is that yes it is free but it is limited to the features i could use as for example there was only a limited amount of speech bubbles and there aren't any options to create your own panel or speech bubble which for the amount of different shots for example a long shot there isn't a wide variety to choose from. compared to pixton which is a paid access has a way larger variety of panels and etc. Which would be helpful to develop my comic further as by adding different speech bubbles and panels the target audience which are kids aged 5-9 wouldn't get so bored easily of seeing the same thing over and over again.

Another thing i could have developed further is that i could have used more realistic images for the background of my panels as my characters which are designed as cartoonish i could have made it as cartoon characters living in a realistic type world such as displayed in the series darwin and gumball. Which would be different to all the other comics that have been made making my comic stand out compared to everyones elses giving other people a new thing to read which would result into the increase of people reading my comic. Also my target audience who are kids aged 5-9 would find it more interesting as it is different to all the comics they may have read in the past.

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Grade 5 (Merit)

Task 1 – Styles portfolio

Style 1

Traditional Western African Drumming

Sonic features of African drumming

Texture

African drumming mainly uses **Polyrhythm**. This is when you have many rhythms played at once. Some of the time some of them rhythms are played in **unison** we can hear this in the djole about 20 seconds into the song when the African drumming people were play all at the same time. We call this a rhythmic brake because it provides a break from the normal polyrhythmic texture of the music.

Production

African drumming is not normally recorded, its normally performed live and people sing and dance along. It is passed on to generation to generation by oral tradition, this is music that is not written down but instead by word of mouth, taught from one generation to the next. **There is many variations by the generations in this piece of music where it changes over time**

Lailaiko is also performed live at celebrations and is about people coming together, uniting people with music and uniting all as one.

Sonic features of African drumming

Instrumentation



- The instruments of African drumming are shakers, balafons, talking drums, voice, dununs and djembes.
- A **Dunun** is a Mandinka bass drum often played in a set of three different sizes, and it comes with a cow bell. In the djole this is the lowest pitch tones that can be heard
- **Djembé** is someone that plays a solo or lead drum made from a single piece of wood shaped like a goblet with a playing head made from goat skin. In The dole this is the lead drum played by the master drummer.



Timbre

- **Bass, tone & slap** are 3 sounds you can make on the djembe drum. Hit the centre to get a bass hit the side to get the tone and hit the edge to get a slap but make sure you open your fingers when you slap the edge of the djembe. The dunun has three sounds and different sizes they make different sounds. In the djole the master drummer is mainly using slaps for the signal to be heard over everyone else.

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My performance on the djole

What we did today was a piece called a djole and i was playing the dundun. This is a Mandinka bass drum often played in a set of three different sizes, and it comes with a cow bell. My role was to play a steady rhythm so we could play the piece together and unite as a whole. I played the cowbell to keep the pulse steady so this can be heard by the whole group if I played my part wrong it could put others out of time.

Once we did the piece the master drummer signal we either stop start or in unison.

We had to keep our rhythm together while the master added an improvisation this was a challenge because we had to focus on our rhythm while the master drummer played his thing. The master drummer gave us another signal to stop, we then sung the call and response. So we could tag along with the master drummer signal at the end to finish the music we were playing against.



This is the song we played at the middle of the show

- Call: Lailaiko korobe, korobe, korobe
(Mami) watole
- Response: **Aiya!**
- Call: Siko le leleko
- Response: **Aiya!**
- Call: Siko laiko, siko laiko

- Chorus: **Wawako siko laiko (x2)**

Rhythmic Break

This is rhythm cycle number 1 this is the one i did and i kept it steady with the pulse i never sped it up or slowed it down.

I did the response the master drummer did the call

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Style 2 (Gamelan)

Production

Gamelan music is sacred.

The word 'Gamel' means to hammer. This is the reason why its called gamelan because most of the instruments are used with hammers.

In indonesia music 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.

Indonesians never step over a Gamelan Because it breaks the communication between the instrument and the gods, the instrument is no longer considered scared

Texture

Gamelan is polyphonic and polyrhythmic. This is because mainy rhythm are played together by the Gong section, kendhang and kethuk whilst the kenong and sarons play different melodies



Instrumentation

The role of the Gong Ageng To start the cycle

the Kethuk plays off the beat

the role of the Saron to play frequently and the main melody of the piece

The 4 main roles of the master drummers are

1. To lead the group
2. To cue in and out rhythm cycles
3. To provide rhythm and keep the group in time
4. To set the tempo and control the dynamics



The kempul plays A set of smaller gongs that accents beats within the cycle


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Lancaran 'Kandhang Bubrah' Slendro Manyura

Beats	1	2	3	4	5	6	7	8
Kempul Gong cycle								
Kethuk								
Kendhang								
Kenong	6		3		3		1	
Saron	6 6	2 5	3 3	2 5	3 3	2 2	1 1	2 2




Wayang—Shadow Puppets

*Shadow puppetry is an ancient form of storytelling and entertainment which uses flat cut-out puppets called shadow puppets. The puppets are held behind a screen and a source of light which makes the puppets appear to walk, dance, talk, fight etc

*In Indonesia, shadow puppet theatre is called wayang

*Its origins can be traced back to medieval times when the religion Hinduism spread to Indonesia from southern India

*Some performances last all night long!

A complete Wayang performance will include dalang—the puppet masters, nayaga—these are the Gamelan players and the sinden—female choral singers

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Grade 5 (Merit)

Style 3 (Rock N Roll)

Introduction / context / culture / purpose

https://www.youtube.com/watch?v=HL_J8_9aDz3A

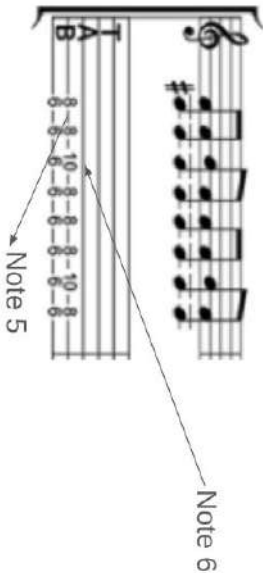
Rock n' roll originated from blues music. It is similar to blues in that a lot of Rock n roll music is based on the 12 bar blues chord sequence. If you listen to songs such as Long Tall Sally by Little Richard you can hear it following the same progression. Some songs might substitute one chord for another or add additional chords to create interest.

In the song Great Balls of fire by Jerry Lee Lewis 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. The lyrics tend to be less soul and more uplifting, singing about Relationships, holidays, rule breaking and having a good time.

Verse 1
 C N.C. You shake my nerves and you rattle my brain.
 C N.C. You make love drives a man insane.
 G7 You broke my will, F7 N.C. but what a thrill.
 C N.C. Goodness gracious, great balls of fire!

Verse 2
 C I laughed at love 'cause I thought it was funny.
 F7 You came along and you moved me, honey.
 G7 I changed my mind, F7 love's just fine.
 C N.C. Goodness gracious, great balls of fire!

Rock N Roll makes use of shuffle riff. A shuffle riff is a feel or groove normally associated with electric blues and some rock 'n' roll, but also has a significant stylistic overlap with the swing feel in jazz. This is instead of playing chords, you play a repeating riff. You can hear this in Johnny B. Goode by Chuck Berry. Where he repeats the guitar movement all the way through the song. In this song a shuffle riff is created by quickly changing between notes 5 and 6 of a chord.



Texture

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. You can hear this happening in hound dog by elvis presley.

Most Rock n' Roll songs will have an instrumental solo section. We hear a guitar solo in Johnny B Goode. Similar to blues music, the solos are improvised.

Many Rock n' Roll songs make use of stop time. This is where one Instrument Stops after the first beat of the each bar whilst the rest of the band continues to play. We can hear this in long tall sally.

Homophonic



Homophonic Texture

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Melodic techniques

1950s Rock N Roll used: Improvisation, Riffs - shuffle riff, and Walking bass lines.

Improvisation is where a musician makes up a melody up on the spot without preparation. Techniques are used on improvisation for example slides on a guitar and glissando on a piano also bending on a guitar where you bend a string up to the next string and hammer on and pull ups on the guitar this is where a guitarist plays a string and hammers their finger on to another fret to play a note really quickly this can be heard in such song like Johnny B Goode by Chuck Berry and also plays more than one string at the same time to create a double stopping the piano solo in Great Balls of Fire by Jerry Lee Lewis uses the same similar techniques he will play more than one key at the same time he's playing allegro.

Riffs (shuffle riff) is a rhythmic pattern, often used in blues and rock music, characterized by a "triplet" feel where the eighth notes are played as if they are divided into three equal parts and can be heard by the guitar in Johnny B Goode

Walking bass line is a bass accompaniment style, common in jazz, blues, and other genres, characterized by a steady, continuous sequence of notes, typically quarter notes, that outlines the chord progression and provides a strong rhythmic foundation and you can hear this in the piano in Johnny B Goode

Harmony

The main chords in rock and roll are the I, IV and V (so C's F's and one G when in the key of C major) as they tend to be based on the 12 bar blues chord sequence roll for example in Great Balls of Fire by Jerry Lewis.

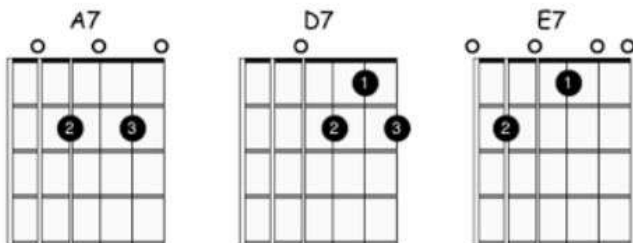
Other songs may use the same I IV and V chords but in a different key such as Long Tall Sally by Little Richard:

Verse 2

| C (chord riff) | C (chord riff) |
I laughed at love 'cause I thought it was funny.
| F9 | F9 |
You came along and you moved me honey.
| G7 | F9 |
I've changed my mind, this love is fine.
| C5 N.C | N.C |
Goodness gracious, great balls of fire.

Bridge 1

| F6 | F6 | C6 | C6 |
Kiss me, baby, ooh, feels good.
| F6 | F6 |
Hold me, baby.
| G7 N.C | N.C G7 |
Well, I'll still love you like a lover should.
| G.N.C G7 | G7 N.C G7 |
You're fine, so kind.



A 12 Bar Blues in A			
A	A	A	A7
D	D7	A	A7
E7	D7	A	E7

blagmusic2011

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Style 4 (Hip hop / Rap)

Compositional features

Melody

While rap is primarily known for its rhythmic qualities, melodies can still be present, especially in the backing tracks. Melodic hooks or samples are often used to enhance the songs catchiness. Kanye West's "Gold Digger" featuring Jamie Foxx includes a melodic hook that complements the rap verses. They care rememberable and catchy because they only make use of short phrases with 3 or 4 notes:

Harmony

Rap music typically features limited harmonic complexity, as it focuses more on rhythm and lyrics. Chord progressions are usually simple, simple triads, using between 2-4 chords in the chord sequence. Notable examples can be found in songs like 2Pac's "California Love", Still Dre by Dr Dre, and Tipac's Changes.

California Love

2 Pac

Still Dre by Dr Dre

[Verse 1]

Bm Bm Bm Bm
It's still Dre Day (ah), Ah (ah)
Bm
Though I've grown a lot, can't keep it here a lot
Bm Bm
'Cause when I frequent the spots that I'm known to rock
Bm Bm
You hear the bass from the truck when I'm on the block

Tonality

Rap music often employs tonal ambiguity, with the focus being more on the rhythms and the delivery of lyrics rather than traditional tonal structures. However, some rap songs incorporate tonal elements in their melodies or hooks. Kendrick Lamar's "HUMBLE" uses a tonal melodic hook to great effect.

Production:

Rap music production typically involves the use of digital audio workstations (DAWs), drum machines, and samplers to create beats and instrumentals. Producers like Dr. Dre and Timbaland are renowned for their innovative production techniques.

<https://fitypaper.soundify.com/produce/5-plantns-every-hip-hop-producer-needs-in-their arsenal/>

Period	Graphic representation	Type
400 - 1450		Monophonic Texture
1450 - 1750		Polyphonic Texture
1750 - 1850		Homophonic Texture
1950s		Idiophonic Texture

Texture

The texture of this type of music is usually polyphonic. This is where you hear two or more melodies playing at the same time. You can hear it in *This Is How We Do It* by Montell Jordan. And it can also be heard in *Ghetto Gospel* by Tupac. Both of these songs have independent chorus melodies. Some hip hop songs are similar to edm in that they have a melodie dominated homophonic texture where a melody can be heard over a chord sequence of just three or four triads this usually happens in the chorus for the song which can be heard in *Monster* by Eminem and *Rihanna* in the

Later Nelson "J. Nelson January, 2014

By Eminem - Rihanna

Bass Progression:

$C^{\#}_{min} \cdot B \cdot A$

The Monster

Key of: $C^{\#}_{min}$

Chords: $C^{\#}_{min}$ ($C^{\#} \cdot E \cdot G \cdot B$) B ($B \cdot D \cdot F$) A ($A \cdot C \cdot E$)

Compositional features of

Rhythm

Rhythm is one of the defining features of rap music. It relies heavily on intricate and syncopated rhythms in both the lyrics and the beats for example in love the way you lie by eminem and rihanna in eminem's vocals and also in the real slim shady by eminem

https://www.youtube.com/watch?v=uelHwf8o7_U

On the first word it's on beat until the word "that's alright be-cause i love the way you lie." because then it goes onto complex rhythms through the chorus. But when eminem and rihanna sing it there's a rest at the start of the picture on chord three there's a rest then the beats

Structure

Rap songs commonly follow a verse-chorus structure, but many artists experiment with for example in stan by eminem and dido But in the song eminem raps the verse and he has a guess to sing the chorus

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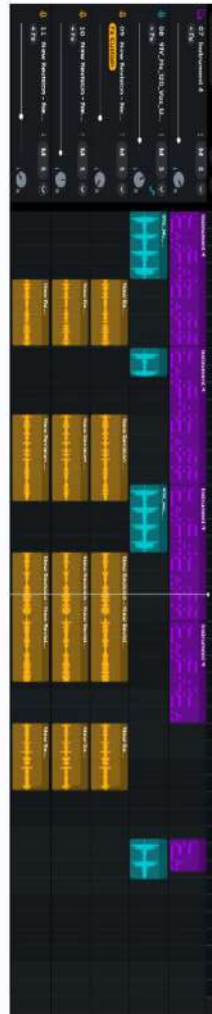
Grade 5 (Merit)

Task 2 – Explore techniques used to create music products

Vocal tracks



I clipped them to them to get rid of background noise when I wasn't rapping. Finally I structured my piece using copy and paste so that my piece followed a typical verse chorus pattern.



Rock and roll performance

https://drive.google.com/file/d/1lvu21_3HhJ0yHS5LwIhKzTYtqUyxZLp/view?usp=sharing

In today's performance we did hound dog by elvis presley and we recapped what we learned and performed and recorded it to scratch. We practiced it about 3 times before recording it and getting the final product. What we used was stop time and improvisation

But my part in hound dog in my rock and roll performance is singing and drumming. I'm drumming the 12 bar blues keeping the band in time. I do this by keeping the steady beat and keeping the tempo consistent. I also helped everyone come in by counting them in. for the drum groove I was hitting the hi-hat using straight eights which is a feature of rock n roll when swung quavers were replaced for straight quavers. Rock and roll drum beats use a back beat by hitting the snare on beats 2 and 4 I hit the bass drum on beats 1 and 3 which you could hear me in the video doing consistently without mistakes. This was a challenge when singing a different rhythm at the same time with the vocals. When it came to stop time I hit the bass drum and the crash symbol and stopped it with my hand so that the cymbal didn't continue ringing allowing the stop time to be more effective and came back into the groove for the remaining bars, hit it again until I came back for the 12 bars.

Ways my product links to the theme of time:

I am demonstrating stop time. This is by stopping but keeping a steady rhythm on the bass drum before we come back in with the 12 bar blues. but to help do stop time I counted in my head until we came back into for the rest of the song. My role as a drummer is to keep everyone in time with the drums and how to stop at the end of the song I keep everyone in time by keeping a steady beat on the hi-hat (for example not going too fast or too slow at certain time but keeping a steady beat all the way through to the end). You can hear in the video how this was successful. We started at the same time and finished together, we stopped and started together during the stop and starts in the stop time sections. I have to keep in time with the fast tempo of rock n roll which is 140 bpm. I help everyone else keep in time by keeping the steady beat on the base drum and snare.

Chord Sequence - I recorded a chord sequence of 3 chords as most rap music typically will only use a sequence of 3 or 4 chords. The chords I used were triads (chords of 3 notes) I inputted these notes using the MIDI keyboard. I recorded in real time and used quantize to put the notes in time as the timing has to be precise in rap. I developed these chords by having a little bit of melody in between the chords and added rhythm by moving between some of the chords more quickly. This is typical of rap as they use syncopated rhythms. I looped these chords as rap music makes use of a lot of looping to repeat a short sample so rappers can MC over the top.



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This show was performed on Broadway, New York during the years 2008 - 2010. The actors who played main parts in this show are Brian d'Arcy James as Shrek. Brian is a well known actor, playing other roles such as an Irish priest and King George III in Hamilton. Then we have Sutton Foster who plays the beautiful princess Fiona. Sutton Foster is a multi talented actress, singer and dancer. She got her first role when she was only 10 years old, in the successful play, Annie. Then we have a fan favourite; Donkey who is played by the brilliant Daniel Breaker who like Brian was in Hamilton and he is also an American comedian. Finally Christopher Sieber plays Lord Farquaad.

The plot of this play is that the fairytale creatures are kicked out of Duloc as they are not accepted for who they are, so they get dumped at the swamp where they beg Shrek to go and talk Lord Farquaad into letting them have their home back, to which Shrek accepts and he goes to talk to the Lord. Lord Farquaad agrees so long as Shrek goes on a quest to rescue his future bride, Princess Fiona. Shrek is joined by Donkey of course who helps and hinders along the way. Secrets are revealed while love and friend-ship bloom in unexpected places.

The show has been influenced by the original book and animated film. The book was the first version of Shrek written by William Steg, published in 1970 October 17. The influence of this book can be seen in the musical, Shrek's character design has the same green look, along with some of the scenes, such as Shrek's parents kicking him out when he was only a young, only 7 years old, the story plotline where he has to save a princess to gain something in return. However it was the movie that had made so many people fall in love with the characters and the love between Shrek and Fiona. The movie came out in 2001 and the story more or less stays the same, only a few aspects change, such as the inclusion of Donkey and Lord Farquaad is now the character giving Shrek the quest to go rescue his future wife. The look of the movie is the biggest influence on the stage show. The story more or less follows the same linear structure, the characters are virtually identical, the set looks like the environment of the film and the musical includes all of the key memorable moments from the film, such as when Gingy is interrogated and when the dragon crashes the wedding.

This influence was kept to attract fans of the film and as the show was a Dreamworks production it would have to keep the look of the franchise films. Another influence on this show could have been other successful musicals. An example is the stage musical of Beauty and the Beast, performed for the first time on Broadway in 1994. Like Shrek, this show touches on the theme of acceptance; Belle has to learn to accept the Beast, and the Beast accepts the fact that he can be loved despite his appearance. Beauty and the Beast was the first on stage performance Disney adaptation produced and by far their most successful, as it ran for over 13 years.

The main creators of the show are Jeanine Tesori, the composer, and David Lindsey-Abaire who wrote the book/lyrics and Jason Moore, the director.

The creators of the show discussed their creative intentions. Influenced by the success of the films and other musicals they wanted to create a stage version that would appeal to fans of Shrek and other comedy musicals. They also thought it was important to make a new version of Shrek and not to make it just a copy of the original film placed onto stage, as the audience will feel like it is a copy and paste from the original movie and that they could watch it at home for free. They used the musical aspect of the show to show the audience more about the characters and expand the world of Shrek. An example of this is Lord Farquaad, through a new song in the show, 'Daddy was a miner' we learn that Lord Farquaad is the son of one of the seven dwarves and that he was actually part fairytale creature. We are also told more about the characters backstories, for example about Shrek and how he came to be living alone, how he was sent off by his mother and father when he was 8 and when he went to towns, he was chased away for being an ogre. This led him to live in a swamp alone understanding that he will always be hated and alone. The show also features much more about the Fairytale characters, they have several scenes and songs. They allow Brian and the other main character to have a chance to rest before they are back on stage.

Purposes of the show

For entertainment :

One of the main reasons the musical would be made is to keep the audience engaged and to entertain them, otherwise the show would not make any money and would be replaced with something new. Shrek is a very entertaining show. It has catchy, memorable songs, lots of humour which they use to keep things light hearted during the more serious scenes. They also keep us entertained by keeping the music up tempo during more dramatic or high stakes scenes, such as when Shrek is fighting the dragon guarding princess Fiona. The target audience the show is aiming to entertain is families and those who enjoy musicals as well fans of the original movie.

This play may keep people on their toes with some provocative, exciting moments such as when Shrek interrupts the wedding of Fiona and Farquaad. Along with the scene where Shrek fights against the dragon that guards Fiona and her tower, the music is fast paced, keeping people on edge, wanting to see what happens next!

To raise awareness :

This play also raises awareness about beauty standards and how people who don't look like a 'stereotypical' attractive person are treated, for example at the beginning of the Shrek is chased town to town due to him bringing an ogre and how he looks. And then we have Fiona, she is trapped within a tower due to changing into an ogre during the night, she only feels happy with herself when she is a beautiful princess who surpasses the standard of beauty. Showing how in society beauty is more important than what's on the inside. The show promotes the theme of **acceptance** throughout the play. Both Shrek and Fiona learn to love their true selves and at the end of the play, they have all seen what they are worth and they learn to accept themselves and their flaws. This is shown when at the end of the play, Fiona exposes herself as an ogre during her now ruined wedding, she is now instead of ashamed, she is proud of herself and how she looks, Shrek had helped her accept herself as her true self, the woman he fell in love with, not the woman who surpassed the beauty standard.

Celebrate :

This play may show how people can be treated differently for their differences, but it also encourages the audience to celebrate what makes them unique. This is shown heavily during the song 'freak flag' where the fairytale creatures no longer feel ashamed for who they are and no longer feel pressured to conform to the social norm and celebrate and accept their true unique selves. This may speak to marginalised members of the audience who might feel like outsiders in society or that they don't fit in, for example people who don't feel like they fit in at school perhaps, that they waited a long time until they found people who enjoyed the same things they did. The show wants people to know it's okay to feel different and it's okay to enjoy the things you enjoy doing.

Challenge view points :

The writers wanted to challenge toxic and modernised beauty standards and they wanted people who have a certain mindset, of only looking skin deep and never wanting to look on the inside, the idea that physical beauty is what makes you worthy of love and what people think of you, to walk out with a whole new view on the world and the people around them. This is particularly shown when Shrek stops the wedding, the people of Duloc are in a state of shock when they see that an ogre loves a princess, they ridicule him, showing him how they thought that because of how he looks that he could not love nor could he be loved by another. Yet in the end we see that Fiona truly loves Shrek for who he is inside and out.

Style and Key features

Shrek the musical is a fairytale comedy, adventure, it includes characters breaking into both song and dance, what is what makes a musical really. The definition of a musical is a type of theatre that combines spoken dialogue with both song and dance.

Musical traditions

One of the key features of the show are the use of songs to show how the characters feel as well as big dancing and singing numbers. The songs are important to both the plot and characterisation, revealing important information within the lyrics, for example how the characters are feeling inside. All of the main characters have a solo song to show what they want, for example Fiona sings 'I know it's today' to show her hope that she will be rescued,

Shrek sings 'Who I'd be' to show his innermost wishes to be a hero and liked by others and Donkey sings 'Don't let me go' when he first meets Shrek, begging him to be his friend. Other song and dance numbers are used to drive the story forward such as the 'travel song' that Donkey sings when he and Shrek are off to find the Princess.

Comedy

A key feature of Shrek is comedy. The film is renowned for being full of jokes and funny moments and the musical is the same. There is innuendo like when Shrek says that Farquaad's big castle is making up for something, visual humour like Farquaad short legs and the puppeteering of Gingy. Donkey is a constantly funny character who lightens any heavy scenes and the show even includes fart jokes! This is a key feature of the play and it keeps the audience entertained, living up to the expectations of the original film.

Visual Style

Another feature in the play was the bold look it possessed, thanks to Tim Hatly, the set and costume designer and Hugh Vanstone the lighting designer. The show is very bold and colourful, never dull or boring, it has big cartoonish colours that represent the scenes well, such as Shrek's swamp. The staging is amazing how it transforms and rotates. The show also features a live magic mirror and a huge dragon puppet, puppeteered by John Tartaglia. The show had a budget of \$25 million dollars so no expense was spared in creating impact in the visual look.

BTEC Tech Award in Music Practice

Grade 5 (Merit)

Roles, Responsibilities and Skills

ROLE OF AN ACTOR

An actors' purpose and job is to make the character seem life-like and believable to the audience. They have to portray the characters emotions and use acting skills to tell a story to the audience. In Shrek the musical there were 33 members of the cast working on it, including actors, writers, makeup artists and many more. One of the main characters in the show was called Sutton Foster, she played the role of Fiona and captured Fiona's essence perfectly, making it feel like we were watching the original movie all over again.

One responsibility Sutton would have before she starts rehearsing is communicating with the director. This is important because she needs to understand how they foresee the character so she can plan how she will play the character. Skills she needs for this is listening to listen to how the director wants the actor to act and how to be perceived and she also needs communication skills. The skill that is needed for asking these sorts of questions and talking about the character.

Sutton will also need to research about the character to see how others have portrayed her. This is important because she can see how others have made decisions about the character and how to portray her. For this she needs observational and analytical skills when she is watching the animated version for example so she can note how and think about mannerisms and accent and she also needs to decide if she is going to take these previous versions into account or not.

During the rehearsals period is when the actors start to rehearse with the director. A responsibility that Sutton will have during this period is to keep to a given schedule and attend every rehearsal. This is important because the schedule means that the show will be ready on time and if she doesn't take this seriously then the whole production could be jeopardised. For this she needs both time management skills, punctuality and discipline so that she gets herself there on time and keeps on schedule.

Sutton will also need to make sure that she learns her lines, lyrics, dance routines and cues to come on stage. This is important as if she doesn't learn them then she will not know when to perform and she will throw the other performers off and the show will look unprofessional. This requires skills of memory and stress management, as she needs to multi-task a lot of responsibilities.

Sutton will be working closely with the director who will give her feedback and critique on weak parts of her performance. Throughout this Sutton needs to remain composed and not take the feedback personally, she would need to show reliance and improve where she needs to.

Sutton has another responsibility that she keeps herself in good health so that she doesn't get sick and miss rehearsals. This is important because Sutton needs to be at rehearsal so that she does not fall behind and keeps working on their lines, songs and dances. This requires skills such as self care and discipline so she isn't tempted to do things she shouldn't.

Now during the performance, Sutton will need to give 100% percent during the show, this is important as they had all put so much work and effort into this play and they had to show that she understood all of this. For this Sutton will need memory skills, focus and stress management skills like relaxation techniques.

THE ROLE OF A DIRECTOR :

A director's role is to be in charge of the production from start to finish. The director of Shrek the musical is Jason Moore.

They need a creative vision because they need to have a clear idea about how the show will look on stage and then be able to communicate this vision to everyone involved in the show. Jason's vision was to create a 3D version of the show onstage with added extras. Even though he had an animated film as a reference he still had to think about how it was all going to work on stage. To create his vision he needed to use observational skills through his research, he needed to be decisive and imaginative.

Another responsibility that the director needs to attend to is hiring the performers, he needs to be a part of this process because he needs to see if they fit the character. This is important because the characters are the spirit of the show, so the casting has to be right. For this he would need the skills of discipline and decisiveness.

During the rehearsal period, the director needs to be directing the show, making sure it fits their vision. They are responsible for giving blocking and direction instructions to the cast. For this they would need creativity and problem solving skills so they can work out how to present moments in the show effectively.

While preparing for the show they will also need to give feedback to the performers, they need to give them constructive criticism for their performance, this is important because the performers need to know how to present their character and they need to know how the character acts and looks within the directors vision. For this they need empathy and patience as well as the ability to give helpful feedback.

While they have to give the performers critique, they also have to give the design and technical team notes, having to give them a vision of what to create and what to make, they

need to know what costumes or makeup or hair they should be doing. This is important because they need to know the overall aesthetic of the play if they want to make it look good on stage. To complete these actions, they need communication skills to clearly explain what they want and what their creative vision looks like, they also need problem solving skills to work out any issues with the teams.

Then during the show run time, the director might give notes for the actors, they might look at what goes well on the play and what doesn't. This might be their opinion or what the audience or critics' feedback is.

THE ROLE OF THE MUSICAL DIRECTOR

The job of the musical director, Jim Weil, is to oversee the musical progress of the show, from the singers to musicians through rehearsals and live shows.

A responsibility that the musical director has before the rehearsal begins is hiring the musicians who will play in the orchestra, people who will play the music for the songs and this is important because they need to hire a full orchestra to play live alongside the singers and dancers. For this they need decision making along with listening skills, they need to listen to how well they play and they need to decide who is a better fit in the orchestra.

Another responsibility he has is to meet with the lead cast, he has to get to know them and understand their vocal range, so he knows the kind of voices he's working with. This is important because they need to keep the range of the song within the range of the actor's vocal range, as he needs to make sure the actors won't be straining their voice beyond what they are capable of while performing. For this they need both listening, to listen to the actor and how high the actor can go, they also need adaptability, he needs to adapt the song to the actor's vocal range and to see if they are able to meet the pitch of the song.

During the rehearsal period they need to meet with the cast and they need to practise and coach them in their show songs so they know what they are doing on stage. This is important because the actors might need one to one time or advice on singing the songs if it is challenging.

Another responsibility during the shows they have is practising the musical accompaniment with the orchestra, they have to rehearse with the orchestra so they know what to perform and who has to play when. This is important because they need to know what and when to perform, what they need to perform and what song it is. For this Tim will need decision making, for who is best for the part and he also needs critical thinking for knowing what needs to happen and how he had to make it happen.

And during the show run, Tim will be conducting the orchestra. This is important for the show for so many reasons, he knows the songs best and can adapt the orchestra's timing to the singers from his knowledge of them. For this he needs focus and musicality.

SECTION 3 :

Approaches, Processes and Techniques

Shrek the musical - pre Broadway

Shrek the Musical had a Pre Broadway tryout at 5th Avenue Theatre in Seattle in 2008 on the 14th of August. Like many Broadway shows Shrek the Musical used the approach of an out of town tryout to test the reaction to the show, finding the weaknesses and making changes before they perform it on Broadway. Some of the changes that 7 songs were made were cut. Some of the roles were re-cast, like how it was with Donkey. In Seattle he was played by Chester Gregory II and on Broadway he was played by Daniel Breaker. The role of the dragon was also reworked as in Seattle the dragon was played by Kecia Lewis-Evans

but then it was changed to 3 company members who voiced the dragon and they were Heaven Burton, Aymee Garcia and Rachel Stern.

TIM HATLEY - COSTUME AND SET DESIGNER

Tim Hatley was both the set and costume designer. A set designer is a person who creates the physical environment for the play, creating and setting up the scene. It is a big part of the play as it helps direct how the scene will play out. A costume designer is the one who creates the outfits that the character wears and they design and make it, helping to make an outfit that is beneficial for the character and comfortable for the character to be in.

When creating both the sets and costumes, Tim's approach is to think in a similar way to the directors creative vision, he knows that everyone knows and loves these characters and that they know this world. That is such a big part of comfort for others. He wanted to keep things the same, he wanted the show to give the ones watching it the same source of comfort. While tackling the challenge of taking it from a 2 dimensional movie to a 3 dimensional show being performed on Broadway.

To get ideas for the set and costume Tim read the script, he saw how it looked in his mind, how his mind started to think of how the characters looked and how they acted. And what they are wearing and if that would be functional in the world they are in.

At the start of the design process, Tim's imagination plays an important role because he has to imagine how the characters look and how he is able to see it. After Tim has imagined what the characters look like he then has to be able to sketch his ideas so that the people in his team can see what he is trying to achieve with the characters and how it should be. The first character that 'came out of his mind' was Lord Farquaad, thinking about how to include his short height in the play, along with getting his costume functional for both of them.

The most challenging costume Tim had to create was Donkey's as Donkey is an animal and they had to figure out how to portray that into the play, like his ears are controlled by remote control so they move, making him more animal-like.

Once the costumes are created and the actors have tried them on Tim checks if they are comfortable and if they are functional for them to work in and if they can move in them and if they are able to be in for a longer period of time.

BTEC Tech Award in Music Practice

Grade 5 (Merit)

To create Pinocchio's costume, they took many layers of felt and built them up and up until it created a texture that looked like real wood. He also used some engineering to create a mechanism that made it so Pinocchio's nose could grow with a lever in one of Pinocchio's gloves.

One of the latest technologies that Tim uses is the motion capture system to make the play look more magical and fantasy like. For example he used it when creating the magic mirror, it records the movements of people and sends them to a computer where they are instantly animated.

To create the overall look onstage Tim had to work and communicate with the set building team who builds the props and the sets he has carried inside his mind. He has to work with them so the play looks magical and fantasy like.

Being a performer :

To understand the process, skills and techniques of professionals in Shrek the Musical, I took on the role of a performer. For this I had to learn the lines for the 'Sugar Plum Fairy' and had to perform a short extract with other performers.

To begin the process of being a performer, I began by learning my lines and the lyrics to the song 'freak flag'. This was important because I needed to keep up with the other people around me and not to fall behind. To make sure I was keeping up with the others and making sure I knew my lines, I had to use memory skills so I could commit the lines to my head and remember them for when we were performing. A technique I used during this was re-reading my lines so that they were committed to my memory and I could recall them when we were rehearsing.

The next step I took was deciding on mannerisms and an accent for the sugar plum fairy who I had decided is quite posh and sounds like she hails from London. To begin this process I read the lines of the sugar plum fairy and used my imagination to imagine how she would sound in my head. This is important because it gives the character some depth and helps give the character some personality. I used my imagination to think how she would sound and what energy she gave off. A technique I used during this was working my accents and making sure I was able to do a posh accent that made it sound like I was from London.

The next step I took was taking part in the dance warm up to start learning the dance. To begin this process I started to warm up using stretches and repetitive movements. This technique was important because I needed to do the steps warm so that I didn't get injured.

The next step I took was to learn the steps. I watched the choreographer and copied her instructions. She broke the dance down into small sections and we practiced each part over and over. She used steps that synchronised with the beat of the song and when we were confident she played the music so we could familiarise ourselves with this.

The next step I would take is the cool down after the dance routine. I would begin the cool down routine by doing slower, more gentle stretches. This is important because I need to let my body wind back down so that I feel more relaxed and am breathing at a normal pace.

For the professional actors the process of getting ready for the stage would be much longer and complex. They would have more performance parts to learn, for example Haven Burton who plays the Sugar Plum Fairy, she will have taken a much longer time to learn all of her lines and the songs she would be partaking in, like 'freaks flag' that would have taken her a long time to learn. She would have had to practise the songs, she would have to memorise the steps, learn them at home and start to incorporate that with others and how she would perform with others. She would have to use acting techniques to portray her character like facial expression and accent, she would also need to use vocal warm up techniques like scales or tongue twisters.

RE - Grade 7

3rd december
2025

"Religious people cannot believe in both capital punishment and the sanctity of life."

Some people may disagree with this statement due to their religious beliefs and commandments they've been ordained to do so. In Islam, Muslims believe in the sanctity of life and capital punishment ~~is~~ under certain circumstances. They believe that capital punishments should only be used under certain circumstances but value the sanctity of life. God says "Do not kill the soul which Allah has made sacred except by right"; this quote is stated in the Quran and alludes to the fact that capital punishments can only be held or taken in place under just causes or circumstances. In my opinion I think this is a strong argument as ~~the~~ the perpetrator should be justly punished according to how severe the crime committed was.

Some people may agree with this quote from a non-religious point of view as it aligns with their aspects regarding the fact that all lives are sacred no matter what. They believe in peace and forgiveness. However I think this is a weak argument as you reap what you sow and you should be held accountable for all the harmful actions you've committed.

In conclusion

21st Nov 2028

'Explain two religious beliefs about the aims of punishment. Refer to religious teachings in your answer. (6 marks)'

One religious belief about the aims of punishment is found within the bible. It is taught in there to "Love your enemies like you love yourself"; this suggests that God teaches obligations to love and respect others no matter what. Christians stand by this judgement and believe that revenge should be their last resort and that before taking revenge, they should approach with humility & respect.

~~Another religious belief~~ similarly, Muslims hold this belief, however in the person that has committed the sin doesn't show remorse, or if it was an extreme crime committed then they will be punished. However, Muslims believe that forgiveness is crucial as Allah says in the Quran: "Do you forgive others for do you not love for Allah to forgive you"; Muslims believe that in order to attain happiness, they must try to put their egos aside or leave something (which in this case would be hatred) off for the sake of Allah as it is one of the most beloved things to Him.

In conclusion, I agree with this statement as it is the main pillar of Islam and without it, a person can be exited from the religion. Yes, there are other ways, however prayer (salah) is the main key as when you go into Sujood you become so close to God when praying and remembers that they "worship Allah as if (they) can see Him", although they know that they can't but know that "He can see you" (meaning them) this is stated by the Prophet in the Hadith. Due to this, practising salah is one of the best ways in getting closer to God.

12

Spanish

¿cómo sería? he escrito porque quiero descubrir mis problemas escolares y me planifico para el futuro. mi institución educativa es es bien, porque mi profesor es simpático y me ayuda a que aprenda, porque algunas actividades es interesantes y divertidas. gente es también es modesta, porque es bien en el futuro, quiero que sea una persona o sea psicólogo.

Canale about translation

translation of examina y
 ¿cómo sería? en escritura?

- use will ~~problemas~~ school problems and my plans for the future.
 I love my school because I have lots of friends and I respect my teachers, but I think that there are some problems and some things that should improve. First, we can use computers and although we have some, we don't use them for studying and learning. Furthermore, the library is too small and there's no enough useful books for our studies. The worst thing, in my opinion is that the facilities for sports are very old and we can only play football or basketball, but I'm interested in doing activities.

in the future, I will use to study to be a doctor. I would have to study and ~~prefer~~ ^{not} be very good at it, but it will be worth it because I could take care of sick people. the program is not science doesn't interest me. he is not a doctor.

March 27 de mayo

Los trabajos

PLAN

- 1) como, bajo, escrito, lo, estudiar ✓
 simpatía, modesto, bueno ✓
 restaurante, mercado, tienda
 matemáticas, español
 compañeros ✓
- 2) I have confidence in my response because they learn me well and help me alot ✓
- 3) un aspecto positivo del instituto es como de futuro

Cambridge National - Sports Studies

Sport and the media

The positive relationship between the media and sport

Introduction

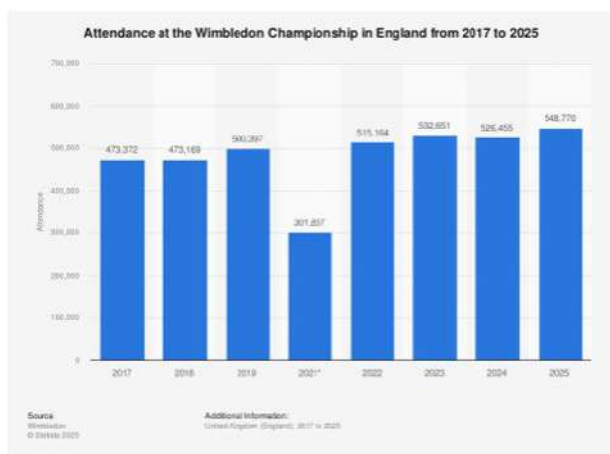
Both the media and sports have a positive relationship and in turn this can have positive effects. For example it helps increase participation rates and creates role models which further increases the positive relationship. This can affect people by promoting healthy lifestyles. Both media and sports have positive relationships which benefit both sides. For example the media earns money and the sport earns a high profile. If the relationships are healthy, it breaks down barriers like gender and age. It also educates the people about the sport for things like changes in rules, new technologies available etc.

The positive relationship between Basford Lawn Tennis club and Tennis and the media

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

Increases number of participants in the sport and frequency of participation

All forms of media including more traditional media such as TV and the radio and more modern versions, such as digital media have a direct impact on increasing the number of people that participate or are inspired to understand more about tennis.



For example, when people see Wimbledon people will become interested in tennis and decide to participate and become fans of it. Therefore more people play it, increasing the frequency of participation. In the graph, it shows the increase in people watching. Without media sharing sites, a version of tennis like pickleball wouldn't exist.

British tennis sees a big surge in both adult and children's ...



<https://www.lta.org.uk/news/british-tennis-sees-big-s...>

Tennis is a mental game" and "Losing is not my enemy, fear of losing is my enemy This is a quote which highlights the fearfulness of tennis players

Increase in popularity at grassroots level

The media can have a positive impact on participation and inspiration to joining groups at grassroots level. Such as local news coverage which is local newspapers and radio stations often feature stories about community sports teams, school tournaments. Advertising helps increase popularity by providing information for potential participants. This local focus makes the team feel more relevant and achievable to residents. This makes a positive relationship between sport and the media. They can use event promotion in the media and it makes people believe anyone can play tennis. Ben Shelton is a famous tennis athlete who started at grassroots level. He participated in the Paris Masters competition and continues to inspire others through media like print and TV. This creates a positive relationship between tennis and the media. This increases popularity of the sport therefore more people may look to join Basford Tennis club

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 fans of tennis. Roger Federer is a Swiss former tennis player and he is considered a role model for his combination of on court success, sportsmanship and off court character. He has 13 million followers and Instagram where he continues to inspire people. He demonstrates qualities such as emotional control and hard work. Role models and influencers in tennis make the sport seem more appealing. Role models make sports seem accessible to all. Role models highlight success and achievements in a sport. Role models share their training, lifestyle and passing. This inspires fans to take part

in the sport and perhaps share their experience on social media just like Roger Federer. Role models often share their personal journeys that are relatable to people. This can increase confidence and dedication in fans creating a positive mindset. Different types of media are used by role models to help increase participation in the sport. For example, broadcast media like podcasts are used by popular tennis athletes and they inspire millions of people and they gain confidence in the sport. This increases participation for Basford as they may be inspired by these people.



Remove barriers

The media has a positive relationship in breaking and removing barriers to participation in tennis. The media addresses a lack of knowledge of the sport. For example, websites can easily be accessed for those who want to learn more about the sport. The media also addresses barriers like age, sex and disability. Positive role models and the media can help to break or remove barriers to fans and participants of tennis in many ways. Role models have inspiring and similar stories

[The Inner-City Diversity Project: Making tennis more ...](#)



<https://www.lta.org.uk/news/lta-tennis-foundation-s...>

like any ordinary fan. For example, Serena Williams faced racism and economic barriers. She played tennis with her sister on public courts. They faced intense scrutiny and body shaming. Therefore anyone from Basford might be struggling to attend a tennis club but read or see an article of a tennis player who explained how they overcome their barriers and this inspired them to join back.

Raising the profile of a sport

If a sport is seen more in the media it becomes more popular, therefore more people are likely to participate in it.

In tennis, Wimbledon is a popular tournament that always has people interested in the sport. It is a global tournament and has people all over the world watching.

Tennis became popular during the 1870s. It became popular for participants in the upper class. It was most popular with monks and other people of nobility. Tennis has increased heavily with both genders. There are interviews online on why tennis becomes popular during Wimbledon. It is usually a popular and inspirational tennis player who helps raise the profile of the sport. If more interviews are seen on social media people will notice the sport and consider participating and gain an interest, this then trickles down to local levels.



Sports initiative

Sports initiatives are organised programmes, campaigns or policies designed to promote physical activity, healthy living and positive social outcomes through participation in sport. The core goals of a campaign are to increase activity in the sport and spread worldwide information. They attempt to reach masses through all forms of media. They showcase role models who inspire others to participate in the sport. Seeing adverts on the TV of these initiatives would inspire the local people from Basford to research where they could play tennis and these initiatives show ways to overcome barriers, especially for women therefore there may be a spike in interest to join. <https://makeitmatter.com/work/lta-make-your-return-to-tennis/> This is a sports initiative for tennis that helps people of all ages and it was launched after the covid 19 lockdown.

The role of the media at promoting an active healthy lifestyle

Engaging in tennis provides a comprehensive array of health benefits ranging from improved cardiovascular fitness to enhanced cognitive function.

Tennis - health benefits



[Better Health Channel
https://www.betterhealth.vic.gov.au/healthyliving/te...](https://www.betterhealth.vic.gov.au/healthyliving/te...)

Cambridge National - Sports Studies

Tennis offers a powerful blend of aerobic activity and strategic challenge, tennis is truly a sport for a lifetime. Tennis acts as a form of high interval training; the rapid starts, stops, and sprint followed rest periods significantly elevate the heart rate. Regular play helps lower heart rate and blood pressure. Promotional flyers explaining health benefits targeted at specific groups. Magazines that go through the mental and health benefits. Newspaper articles of role models saying go fitter. Using social media apps like Instagram and Facebook can make school wellness activities and physical activity. Influencers help support a healthy lifestyle by inspiring unmotivated fans leading to an increase in participation and healthy lifestyle and people from the local area wanting to improve their fitness from tennis, therefore this would have an impact at a local level as more people around Basford may want to get fit and see tennis as a good way of doing this.

Education

The media is a great tool to educate fans and spectators about sport and in particular tennis. The process of receiving or giving systematic instruction, especially at school or university. If people are educated this can affect how people act and play when participating in tennis. As previously discussed the media can have a positive impact on new and emerging sports as it can educate fans and spectators about the sport. Sports such as pickleball are not on TV but can be watched through digital media and streaming, and this is important because back in the 2000s, if we wanted to find out about a certain sport, then we had to wait for the latest rule book or newspaper to come out, and then we would buy it. But now, we can just find it online so it is much easier to access. This increases participants as more people are likely to play and find out about the sport as it is online. It is also very cheap, or even money free to find out about it so people are more likely to find out about it. If we would use more different types of media, a sport can become more popular than it already was, therefore we would increase the sports awareness by a mile. This means that it would also show up on TV so it would increase the participation visually as well as a lot of people nowadays watch TV.

Rules, technology and variations of sport

The media has improved over the years so much that there are now more options for fans or spectators to engage with tennis, and this is still developing. The use of AI and 360 degree cameras has changed the rules and 1st hand views of the sport drastically, by showing the real 1-to-1 review of the footage of the sport. This helps with the rules by showing judges and players what happened so that they can decide fairly and to not cheat. An example of this type of developed technology is VAR, and this is a system that helps referees decide by showing footage that reviews clear and obvious errors. This is a very good example as it can also show offside rules and the 'offside rule' is one of the most debatable rules in the entirety of sport as a lot of people debate on it. So technology has advanced to a high level such that people now argue over who's right and who's wrong. An example for tennis is 'Hawk-Eye',

and what this does is that it gives a first hand view on where the ball landed or whatever the offense was. This means that people can't argue whether the person was right or wrong as there was a live view which shows what happened specifically in that moment. Therefore any fans of Basford tennis club would be able to use the different forms of media such as books, YouTube tutorials and magazines to find out about new rules,



and they would be able to listen and watch adverts and interviews as well as read about in newspapers the new technologies that the game has to offer.

Emerging new sports, promoting new sports

As previously discussed, the media can have a positive impact on new and emerging sports as it can educate fans and spectators about the sport. Sports such as handball, climbing and pickleball are not on TV but can be watched through digital media and streaming etc. It increases participants and is a low cost form of media. Using different media sources means it reaches more worldwide fans.

Rules, technology and variations of sport

Tennis has advances in technology like officiating and line calling and racquets. There are direct views of this new technology being used. [Tennis Scores, Draws, Highlights, News, Results](#)


<https://www.skysports.com/sport/tennis>

Tennis

...

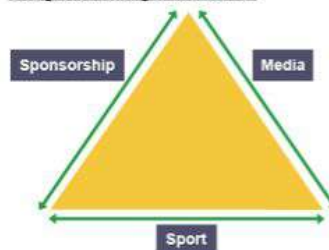
<https://www.bbc.co.uk/sport/tennis>

This helps fans better understand tennis through interactivity of the media. There are new technologies in terms of tennis equipment and clothing and how these are advertised in magazines dedicated to tennis and on the adverts in between major tournament

Revenue

Revenue is the total amount of money a company generates from its primary business activities, such as selling goods or providing services over a specific period of time. Revenue has a positive impact on the sport as it allows the money to go back into the sport by spending it on training facilities, advertisement and merchandise. Media audiences grow because people want to watch a sport. Popularity of, and participation in the sport increases because of the media coverage.

The golden triangle and Tennis



Each element of the golden triangle relies on each other. Without media there is less coverage of the sport. Less coverage means less sponsorships of the sport. Advertising sponsors have a positive impact on tennis because it motivates potential participants if they see their role models. Sponsors can have special offers along with the club. Pimms is a major sponsor for tennis during Wimbledon and they make a lot of money by sponsoring tennis. This also helps the media as they can capitalise on the opportunity by promoting the sport further using broadcast and print media.

Promotional opportunities for businesses

Businesses small or big will see sport as a really good way to promote their business. When the media are involved in a sport this allows more people to engage and see the business, sparking an interest in the brand. Companies such as Lacoste and Nike would want to be associated with tennis. Athletes will wear their products while participating in the sport, during interviews and online. The local businesses sponsoring your clubs will have similar products which are relevant to the sport. Lacoste has an entire section just for tennis.



MDG sport sponsors my club [Basford tennis club] [MDG Sports - The Racket Sports Specialists](#)


<https://www.mdgsports.co.uk>

They advertise the business by selling good priced and high quality tennis prices.

Sports as a commodity

Sports as a business is very valuable. Sports can be seen as a commodity as it can be sold or exchanged and there are lots of opportunities to make money, through selling merchandise, tickets and food or through apps, broadcast deals, interview rights, exclusive articles and influencers. In tennis, the broadcast deal for BBC Sport Tennis is 60 million pounds. During Wimbledon sales can be worth 276 million in 2023. A lot of money from clubs comes from broadcast deals. In Tennis, the broadcast deals are worth 170 million dollars a year. Sports can be sold and exchanged, this is why it can be seen as a commodity. During the Wimbledon, sales of merchandise can become very cheap as there is very high demand for these products. This provides the fans with the right mindset to enjoy these major events and this creates a positive effect on the media creating a better relationship between the media and the sport.



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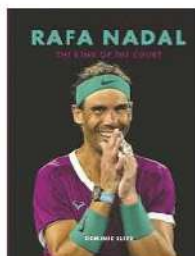


Promotional opportunities for clubs and sports stars

A company may want to be associated with a sport because it attracts fans who enjoy the sport. These sponsors show throughout the sport with areas like stadiums and products. Tennis is a popular sport but they still work with the media during big events to promote themselves and make more money through the sport which allows their stars to make more money. For example, Wimbledon is a major tennis tournament attracting millions of fans. This may also attract sponsorship opportunities through kits and billboards which can help sports stars and clubs. Major events can help sponsors to have ultimate media coverage.

Sports Stars

Sports stars can use the media to promote themselves and earn more money than they already do, gaining their own sponsorship deals etc. All forms of media promote players. Tin Henman is a former tennis player who is



popular in the broadcast media. Serena Williams is known for digital media in tennis and she is an advocate for women's sports. Sports stars rely more on the media as they may be paid less in their sport. The more followers a sports star gets the more likely they are to get big branded sponsors. Rafael Nadal is the most followed tennis player on Instagram and has a huge sponsorship with Nike. He gets massive

endorsement deals and significant tournament prize money and his business ventures along with investments in real estate. Rafael Nadal has over 21 million followers on Instagram as he is a huge sports star in terms of tennis. He also has many books which inspire people to create a good image about him. At a local level this may inspire the younger generation at Basford to work hard at Tennis as they may see this lifestyle and want it so they train hard to aspire to be like them, increasing effort and participation rates at the club.

Conclusion

In conclusion, all different forms of media and sport have a positive relationship in areas like increased participation and engaging fans, motivating fans and it promotes a healthy lifestyle. Print media, digital media and broadcast media have a positive relationship in increasing participation in the sport as when people see promotions on print and digital media that will encourage people to want to go to that sport and attend that sport due to the promotions they had seen on the print and digital media. These different types of media will engage fans by wanting to support a specific team from the media that they see online, the good things and collaborations with different brands. It will create a healthy lifestyle by seeing famous people on digital media and sharing their lifestyle which will encourage lots of people to copy them and have a healthy lifestyle like their ego.

The Grant : state the purpose of the £10,000

Basford tennis club faces promotional challenges like low visibility and merchandise. This is because they need more advertisements to ensure they have a sufficient number of customers. If I was given £10,000 to spend on a media of my choice I would choose digital media. This is because it can be used to fix crucial areas like the website like making the booking system quick, accessible, they could also show more videos about people with disabilities or that are females because they are less likely to participate because of what people may think of them. This £10,000 could be spent helping people who are nervous about beginning the sport. Money could be used on advertisement, for example we could purchase a drone and make a recording of the club. There are many different media that would thrive from the £10,000. Print media has high trust locally. It's tangible and good for promotion in the local area, for example placing flyers in local shops. But it has negatives like its high cost per person reached, it also has a short lifespan and it is limited to younger demographics. It has limited relevance to the £10,000 as a full campaign would quickly deplete the budget on printing and distribution. Digital media is highly targeted and has a low cost per impression, excellent trackability and has high engagement with younger audiences. But people have short attention spans and it requires specialist skills. Broadcast media has mass reach instantly, it also has high impact as it builds brand credibility quickly. But it has extremely high production and

airtime costs and it is virtually impossible to run a meaningful campaign with £10,000. The campaign will be targeted towards the younger generation around (13 to 20). This £10,000 will massively increase participation as it can help motivate people who are nervous about joining Basford tennis because of their gender or disabilities etc. Digital media would be the best option for the club as it has the best outcomes for the media and helps reach the targeted audience. It would impact the club significantly as it can be used to talk to the supporters of the club online and used to organise future fundraisers. It can also be used to make the website more interactive by adding features like weekly questionnaires and live streams featuring sports stars that can help increase participation of the sport. A full campaign would influence the participation also as it can be seen online anywhere around the world. This could even help people who are new to the area and are interested in starting tennis. This form of media stands out and will be a better use of £10,000 because it is very quickly accessible and lasts longer than the print and broadcast media. This would target the younger generation who are eager and ready to learn more about the sport. The website could have links to different videos where you can learn how to use the equipment that you will use at the club. It could also teach people different tennis skills. With the £10,000 the club can purchase a drone and make a video of the scenery of the club as a video giving a tour to the people who are interested in the club so they can get as much information they can before they join. It would also attract new sponsors for the club which means more money that the club has to further advertise their club. Sponsors can bring a lot of attention from the media who can post online about the club and even print posters and put it in the local area. The club currently has low visibility within the local area as tennis is not as popular as other sports like football and basketball.