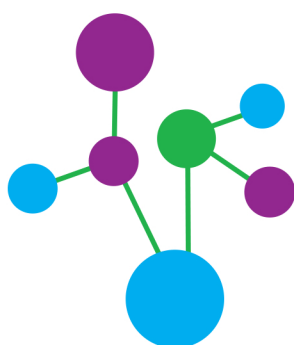


NAME: _____

**TERM
1&2**

YEAR 11
FOUNDATION



PLYMPTON ACADEMY
HANDBOOK

TERM 1&2

The Formal Elements

Examples of how they are used by artists.

Tone

Tone can be used:



To create a contrast of light and dark

Johannes Vermeer

To create dramatic atmosphere

Joseph Wright of Derby



To create the illusion of form, depth and distance

Caspar David Friedrich

To create a rhythm or pattern within a composition

Paul Klee



Shape

Shapes can be used to control your feelings in the composition of an artwork:

- Squares and Rectangles can portray strength and stability
- Circles and Ellipses can represent continuous movement
- Triangles can lead the eye in an upward movement
- Inverted Triangles can create a sense of imbalance and tension
- The angles and curves of shapes appear to change depending on our viewpoint (perspective).



Wayne Thiebaud



Henri Matisse

Form

Three-Dimensional Form can be:

Modelled (Added Form)
Antony Gormley



Cast (Relief Form)
Alberto Giacometti



Carved (Subtracted Form)
Leonardo Da Vinci



Constructed (Built Form)
Louise Nevelson

Form can be created from sculptural materials like clay, wax, plaster, wood, stone, concrete, cast and constructed metal, plastics, resins, glass and mixed media.

Line

- Freehand lines can express the personal energy and mood of the artist
- Mechanical lines can express a rigid control
- Continuous lines can lead the eye in certain directions
- Broken lines can express the ephemeral or the insubstantial
- Thick lines can express strength
- Thin lines can express delicacy



Henry Moore



Peter Doig

Colour

Colour is the visual element with the strongest effect on our emotions. We use colour to create the mood or atmosphere of an artwork. There are many different ways it can be used:

Colour as mood



Pablo Picasso

Colour as symbol



Anish Kapoor

Colour as movement



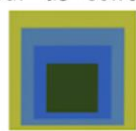
Sol LeWitt

Colour as pattern



Yayoi Kusama

Colour as contrast



Josef Albers

Colour as light



Claude Monet

Pattern

Pattern repeats the elements of an artwork to communicate a sense of balance, harmony, contrast, rhythm or movement.

Pattern as landscape



David Hockney

Pattern as contrast



M.C. Escher

Pattern as repetition



Andy Warhol

Pattern as decoration



Kehinde Wiley

Texture

Implied texture



Albrecht Dürer



Chuck Close

Physical texture



Frank Auerbach



Vincent Van Gogh

Tone

Tone describes the lightness or darkness of a surface.



A gradient is a series of tonal values from light to dark.



Tone can help to provide a form with value to give a sense of volume to a flat surface.

The Formal Elements

The fundamentals for creating art

Shape

A Shape is an area enclosed by a line. It is 2 dimensional and can be geometric or organic.

Geometric

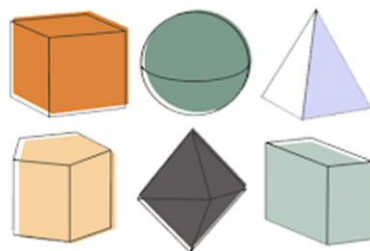


Organic



Form

Forms are 3-Dimensional shapes. They occupy space (like in sculpture) or give the illusion that they occupy space (drawing).

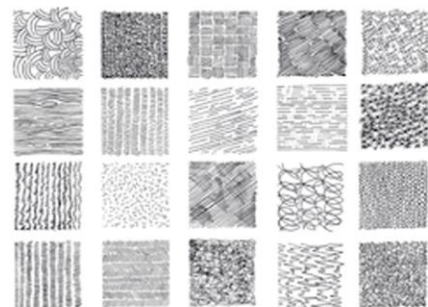


Line

A line is the mark left by a moving point, e.g a pencil or a brush dipped in paint. It can take many forms, e.g horizontal, diagonal or curved.



Marks can be repeated and used together to create patterns in order to give tone and texture to your drawing.



Lines can be expressive and gestural.

Colour

Colour is light reflected off a surface. It has 3 main characteristics: **Hue** (Colour name) **Intensity** (how bright or dull it is) and **Value** (How light or dark it is).

Primary colours

All other colours can be obtained by mixing primary colours together. Primary colours can not be created by mixing other colours together.



Secondary colours

A colour resulting from the mixing of two primary colours.



Tertiary colours

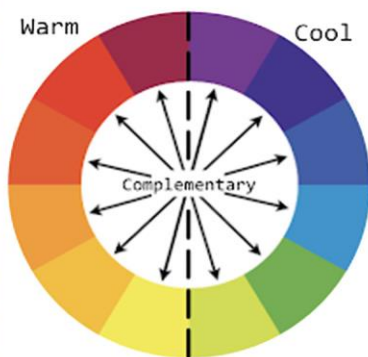
A colour mixed from a primary and a secondary colour.



Harmonious colours are groups of three colours that are next to each other on the colour wheel, and a tertiary. Red, orange, and red-orange are examples.

Complementary colours are colours that are opposite each other in the colour wheel.

The colour wheel can be split into **Warm** and **Cool** colours. Remember each individual colour has its own warm and cool variation too.



Pattern

Pattern is a design that is created by repeating a formal element. It can be man made like a design on fabric, or natural, such as the markings on animal fur.

The image repeated to create a pattern is called a **motif**. These can be simple shapes or more complicated arrangements.

There are different types of pattern:

Regular

Shapes of the same size, repeated in the same place.



Irregular

The shapes still repeat, but can be different sizes or in different places.



Symmetrical

A design that is identical on both halves when folded



Tessellating

Identical shapes that fit together without any gaps.



Texture

Texture is the surface quality of an object. Texture can be real or implied. Real texture can be felt e.g tree bark, whereas implied texture creates the look of texture on a flat surface e.g a drawing or painting.



Year 11 Acting

Title- Component 3

Component 3: Performing to a brief

What is performing to a brief? To create a performance based on an idea, target audience and theme set by an exam board or class teacher.

THE BRIEF:

A local charity is launching a new project to promote the benefits of engaging with arts and culture. The research the charity has done suggests that when people engage with the arts there is a positive effect on their wellbeing. The launch event is an opportunity for the charity to raise awareness of the new project. The event will also promote the value of the performing arts in society. You have been commissioned by the charity to take part in the launch event. The charity has set the stimulus for the performance as:

'Better Together'

What is Component 3?

Component 3 is titled 'performing to a brief'. This includes working as a group to create a devised performance that relates to the brief set by the exam board. You must create a workshop performance that communicates ideas and creative intentions to an audience of local people. You join in with discussions and practical activities to shape the original material. You will need to keep records of your work to answer three milestone questions in controlled conditions. The designers will need to design a particular aspect for one group and will need to pitch their ideas in place of a performance. You will need to partake in research, practical activities, workshops and explorations in order to develop your performance work.

Tasks:

1. To research the term 'BETTER TOGETHER'. To find out what it means in different contexts, how it can be applied to performance and to write up ideas of how you could use it in your performance.
2. To research the notion of 'WELLBEING' and to find out what that means. To think about what this word means to you personally.
3. What VALUE do the ARTS have on society? What research can you use to support your ideas?
4. Are we more isolated today despite being the most advanced we have been as a society? Explain your ideas and support with research
5. Mind Map the term "Better Together". How many different ideas do you have that connect to this theme?

Categorize your ideas into themes or groups

Fill this ring with ALL of your ideas connected to the stimulus

WELLBEING

Categorize your ideas into themes or groups

Fill this ring with ALL of your ideas connected to the stimulus

BETTER TOGETHER

Technical Skills:

Characterisation

Facial Expressions

Body Language (Mannerisms, Gestures, Posture)

Reactions/Interactions

Spatial Awareness

Vocal Skills (Clarity, Articulation, Projection, Breath Control, Pause, Pace, Tone, Pitch, Diction and Articulation)

Interpretative Skills:

Energy

Character

Mood

Atmosphere

Stage presence

Showing time and place

Presenting a character

Creating humour or emotion.

Emphasis / rapor

Expression

Stylistic Qualities:

Characteristics particular to the style or genre

Realising costume or set design

Treatment of theme/issue

Production elements

Form/structure/narrative

Style/genre

Contextual influences

Influences by other Practitioners

Aims and intentions

Theme of the piece
Intended meaning for an audience
Plot/ storyline
Genre
Concept
Style

Design

Staging
Costume
Set
Cast
Props
Sound
Music
Symbolism
Semiotics

Collaboration

Working with others
Sharing ideas
Listening to ideas
Giving tasks
Supporting others
Giving time
Focus
Rehearse

Written element

Logbook of ideas
Mindmap of ideas
Written monologues
Written scenes
To write the purpose of the piece?

Devising skills and techniques

Sharing ideas
Facial Expressions
Physicalization
Semiotics
Change of voice
Structuring a performance
Writing a monologue/ scene
Body language



ACTING

What is Epic Theatre?

Epic theatre is a type of **political theatre** that addresses contemporary issues, although later in **Brecht's** life he preferred to call it **dialectal theatre**. **Brecht** believed classical approaches to **theatre** were escapist, and he was more interested in facts and reality rather than escapism. German playwright, Bertolt Brecht's ideas are very influential. He wanted to make the audience think, and used a range of devices to remind them that they were watching theatre and not real life. Bertolt Brecht was a **theatre practitioner**. He made and shaped theatre in a way that had a huge impact upon its development. Many of his ideas were so revolutionary that they changed the theatrical landscape forever. Modern theatre owes a lot to his methods. When **naturalistic theatre** was at its height and acted as a mirror to what was happening in society, he decided to use it as a force for change. He wanted to make his audience think and famously said that theatre audiences at that time "hang up their brains with their hats in the cloakroom".

-Focuses upon **socio-political issues**.

- Produces thought of solutions to the problems in society.
- The message should be clear.
- To do this, he made sure to remind the audience that they were watching a play and a representation of life.
- He called the act of lessening emotional involvement **"Verfremdungseffekt."**
- Brecht believed that theatre should appeal not to the spectator's feelings, but to his reason.

What are some Brechtian techniques?

Techniques such as the verfremdungsteffekt/alienation effect, didacticism, breaking the fourth wall, gestus, narration and use of song all encompass the Brechtian theorisation of Epic Theatre. Other techniques include alienation, parables, emotional investment, narration and coming out of role. Direct address and placards were also used a lot through his productions to send a clear message to the audience. The characters would multi-role to make it clear that it was just a play. The set would be minimal.

What are political and social matters?

Example Community Problems: Adolescent pregnancy, access to clean drinking water, child abuse and neglect, crime, domestic **violence**, drug use, environmental contamination, ethnic conflict, health disparities, HIV/ AIDS, hunger, inadequate emergency services, inequality, jobs, lack of affordable housing, poverty, racism

A **social issue** is a problem that influences a considerable number of individuals within a society. It is often the consequence of factors extending beyond an individual's control, and is the source of a conflicting opinion on the grounds of what is perceived as a morally just personal life or societal order.

Epic theatre required actors to be up to date with political and social issues. This ensures that actors can convey real world issues in the play.

Political- relating to the government or public affairs of a country.

Year 11 Acting

Title- Component 3

Bertolt Brecht
EPIC THEATRE

Who is Brecht?

Brecht works with political theatre and is the founder of Epic Theatre. He wanted to question his audiences and make them think. Brecht constantly reminded his audience that they were in a theatre and not real life, making them question political and social issues.

- 1) He was born on the 10th of February 1898 in Germany.
- 2) Before he was a playwright, he was a medical orderly in WWI.
- 3) He went to Munich and then to Berlin to pursue a career in theatre. This came to a halt when Hitler and the Nazis came to power in 1933.
- 4) Reichstag Fire: 4000 communists and party members were rounded up but Brecht was not home.
- 5) In 1941, Brecht became a resident in the USA but returned to Europe in 1947.
- 6) He appeared in front of the house Un-American Activities Committee, where they targeted intellectuals.
- 7) He died in 1956 after he established the Berliner Ensemble
- 8) The dark time period he lived in gave him a strong political voice.
- 9) He had a talent of creating a dynamic theatrical style to express his views.

Brecht opposed Naturalism when it was starting to grow in popularity and was starting to become used by many practitioners - like Stanislavski. Naturalistic theatre is when the audience are completely invested in the characters and story on stage. Brecht wanted his theatre to "change the world" rather than just entertain people. He had always rejected naturalistic theatre style that tried to present the audience with a perfect illusion of reality. Brecht required his actors to go beyond Stanislavski and to incorporate a social attitude or judgment into their portrayal.

Why did Brecht develop Epic Theatre?

- ☐ To "change the world"
- ☐ To make rational judgments about the political aspects of his work.
- ☐ To see the world as it is.

Theatre companies that are inspired by Brecht:

- Splendid Theatre Company: Splendid is a theatre company who "create challenging, vibrant theatre for young people."(Splendid, 2020)

Some of Brecht's works:

- Mother Courage and her children
- Threepenny Opera

One of the ways that you can explore the term 'Better Together' and is through political theatre. This would be in the style of Epic Theatre as developed by the practitioner Bertolt Brecht.

Other styles you could use to explore this topic are Theatre in Education, Verbatim, Non-naturalistic/ abstract, Physical Theatre.

Key words

Genre- a style or category.
Epic Theatre- Epic theatre, (German: episches Theater) form of didactic drama presenting a series of loosely connected scenes that avoid illusion and often interrupt the story line to address the audience directly with analysis, argument, or documentation.
Political- relating to the government or public affairs of a country.
Symbolism- an artistic and poetic movement or style using symbolic images and indirect suggestion to express mystical ideas, emotions, and states of mind.
Gesture- a movement of part of the body, especially a hand or the head, to express an idea or meaning.
Stylised movement
Physicality- the fact of relating to the body as opposed to the mind; physical presence.
Facial Expressions- To use the face to express emotion.
Body Language- the conscious and unconscious movements and postures by which attitudes and feelings are communicated.
Devising- To plan, invent, create something of your own.
Choreographing- To compose the sequence of steps
Stimulus
Collaboration- to work with others towards a common goal.
Alienation: ensures that the audience are aware they are watching a play and not real life - focus on issues and not story.

Direct Address: talking to directly to the audience.

Multi-Role: actor plays more than one character.

Songs: Brecht would use songs as a narrative device, fill the gaps in the passage of time, to stop them getting carried away with the action.

Gestus: gesture, movement, stance, vocal - represents how a character is feeling/to represent their attitude.

Montage: series of freeze frames, images, scenes put together.

Not-but: the actor explores the possibility that their character might choose to behave in one way, but equally could've chose the opposite.



Practice makes perfect- the more you use it the more you will understand it. You must include subject-specific vocabulary within your work to research distinction. Challenge yourself to use a few of these everyday!

Title- Component 3

1. Read it- To receive as knowledge
2. Define it- To understand
3. Digging deeper- To research how the word is used
4. Deconstruct it- To analyse how it could be used in your work
5. Link it- To link it to a specific moment/ scene from your plays
6. Use it- To use it in your research, feedback etc.
7. Act it- To being to apply it by showing that you can use it.

- **Actions/Intentions:** The action verbs the actor uses to fulfill the Objective/Driving Question. i.e. to possess.
- **Activity:** A specific physical task that may or may not be connected to an action, such as a character loading a gun or packing a suitcase.
- **Ad-Lib:** Spoken words (sometimes witty comments) said out loud that are not in the script. They can also be given “off the cuff” when another actor forgets a line.
- **Apron:** The area of the stage in front of the proscenium arch.
- **Arena:** A type of stage where the audience is seated on three sides (also referred to as Thrust).
- **Blocking:** To set the movements of actors on a stage or set. Also, any given movement that enhances the scene, such as a specific character gesture.
- **Characterisation-** The actor using their craft to explore and develop the specific qualities of a character.
- **Cultural-** relating to the ideas, customs, and social behaviour of a society.
- **Dialogue:** The written words spoken by the actors/characters.
- **Direct address-** Where an actor directly speaks to/ addresses audience.
- **Dramaturge:** A profession in theatre that deals mainly with the research and development of plays. The dramaturge often assists the director in the preparation of a production.
- **Duologue-** a play or part of a play with speaking roles for only two actors.
- **Emotion:** The agitation of feelings such as: sadness, power, fear, love, hate and joy.
- **Endowment:** To give physical or emotional attributes to your character, to create more reality and meaning to further the needs of the story. Objects can also be endowed with physical, emotional or historical attributes: shaving without a blade, removing wet clothing when it's not wet, drinking water as if it's vodka.
- **Facial expressions-** A facial expression conveys an emotion that tells us about the character and the way they react to the situation. It may also tell us something about that situation, eg if the character is very shocked when something happens. A facial expression can also convey the character's true feelings.
- **Fourth wall:** The imaginary wall which separates the actors from the audience, and the audience from the stage. The actor uses it to create the reality in the scene, and keep one's mind in the world of the film or play.

- Given circumstances: The background and current circumstances of a character, ranging from who you are, where you are, and why you are doing it. The costumes, sets and lighting—all the circumstances that are given to the actor to take into account as they create their role
- Historical- of or concerning history or past events.
- Improvisation: Setting out to do a scene with no pre-planned or written idea. A process leading to spontaneous discovery that allows the actor to find real, organic impulses within themselves.
- Intention: Another word for an acting objective, or action, that an actor pursues while onstage.
- Levels- Levels can be used to suggest status - meaning the power or authority one character has over another. It's important to consider what the use of levels suggests when staging a scene. Levels can also be used to suggest various locations..
- Magic if/What if ? : Created by Stanislavsky, the actor tries to answer the question, "If this were real, how would I react?"
- Monologue: An uninterrupted speech by a character in a performance. The monologue may be to another character or the audience.
- Motivation: The Why? The reason a character pursues a particular objective or super objective.

- Naturalism- A naturalistic style of theatre used to make the acting and scenes seem real and relatable to an audience.
- Objective: A character's pursuit of a specific goal in a scene. Also referred to as the intention or driving question.

[illegible]

ACTING

1. BRAINSTORM/MINDMAP
2. THEME SHEET WITHIN MECHANIC ORGANIC
3. ARTIST RESEARCH SHEETS
4. PHOTOGRAPHS TO DEVELOP YOUR IDEA
5. OBSERVATIONAL DRAWINGS
6. EXPERIMENTS WITH DIFFERENT MEDIA AND TECHNIQUES
7. DEVELOPMENT (BRINGING THE IDEAS TOGETHER)
8. FINAL PIECE PLAN
9. FINAL PIECE



A01 EXPLORE

DEVELOP

DEVELOP IDEAS

INVESTIGATE & RESEARCH

OTHER ARTISTS WORK

ANALYSE

ANNOTATE

ANNOTATIONS

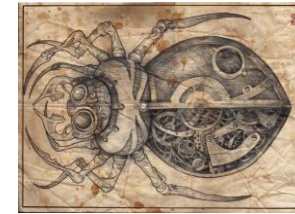
As a general rule, always try to say:

- **WHAT** you have looked at
- **WHO** made it
- **WHEN** it was made
- **WHY** it is inspiring to you
- **HOW** it will effect your own work

When talking about your own work, try to say:

- **WHAT** you have done
- **HOW** have you done it
- **WHAT** inspired you
- **WHAT** else did you try
- **WHY** it is successful
- **IS** there anything you would change

ALWAYS TRY TO BE POSITIVE!



A02 REVIEW

REFINE

EXPERIMENT

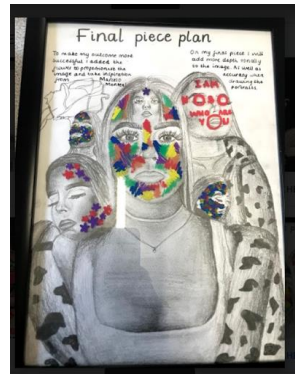
EXPLORE DIFFERENT IDEAS AND MEDIA

A RANGE OF TECHNIQUES & PROCESSES

SELECT

IMPROVE

Artist References: Steampunk, Jim Dine, Aurora Robson, Eduardo Paolozzi, Vladmir Gvozdev, Mike Libby, Rosalind Monks



A03 EVIDENCE

RECORD

PRESENT IDEAS

PRIMARY OBSERVATION

DRAWING, PAINTING, PRINTING, PHOTOGRAPHY, WRITING, PHOTOGRAPY...

ANNOTATE

DIFFERENT MEDIA

Develop ideas through investigations, demonstrating critical understanding of sources. In presenting your personal intentions and response, you need to show you have met all the **assessment objectives** in each component: Develop, Explore, Record and Present.

Extended learning: Homework tasks will be set regularly by your class teacher. These tasks should take you on average 40 minutes to complete and you will have a week to complete each task. All homework tasks will relate directly to your coursework portfolio and are important part of your project work.

A04 OUTCOME

PRESENT

FINAL IDEAS

DEVELOPED AS PLANNED

CLEARLY RESPONDS TO ARTISTS EXPLORED

CONNECTION

CONCLUSION

ART & DESIGN - Making a personal response

1. Binary Search

The Algorithm	<ul style="list-style-type: none"> Calculate a mid-point in the data set. Check if that is the item to be found. If not... <ul style="list-style-type: none"> If the item to be found is lower than the mid-point, repeat on the left half of the data set. If the item to be found is greater than the mid-point, repeat on the right half of the dataset. Repeat until the item is found or there are no items left to check.
Requirements / Efficiency	<ul style="list-style-type: none"> Requires the data set to be in order (probably by a key field). Can be done with letters as well as numbers—use alphabetical order More efficient than a linear search on average

2. Linear Search

The Algorithm	<ul style="list-style-type: none"> Starting from the beginning of a data set, each item is checked in turn to see if it is the one being searched for
Requirements / Efficiency	<ul style="list-style-type: none"> Doesn't require the data set to be in order. Will work on lists of any data type. Can be efficient for smaller data sets. Is very inefficient for large data sets

3. Bubble Sort

The Algorithm	<ul style="list-style-type: none"> Sorts an unordered list of items. It compares each item with the next one and swaps them if they are out of order. The algorithm finishes when no more swaps need to be made. In effect it “bubbles” up the largest (or smallest) item to the end of the list in successive passes.
Efficiency	<ul style="list-style-type: none"> This is the most inefficient of the sorting algorithms but is very easy to implement. This makes it a popular choice for very small data sets

6. For the exam

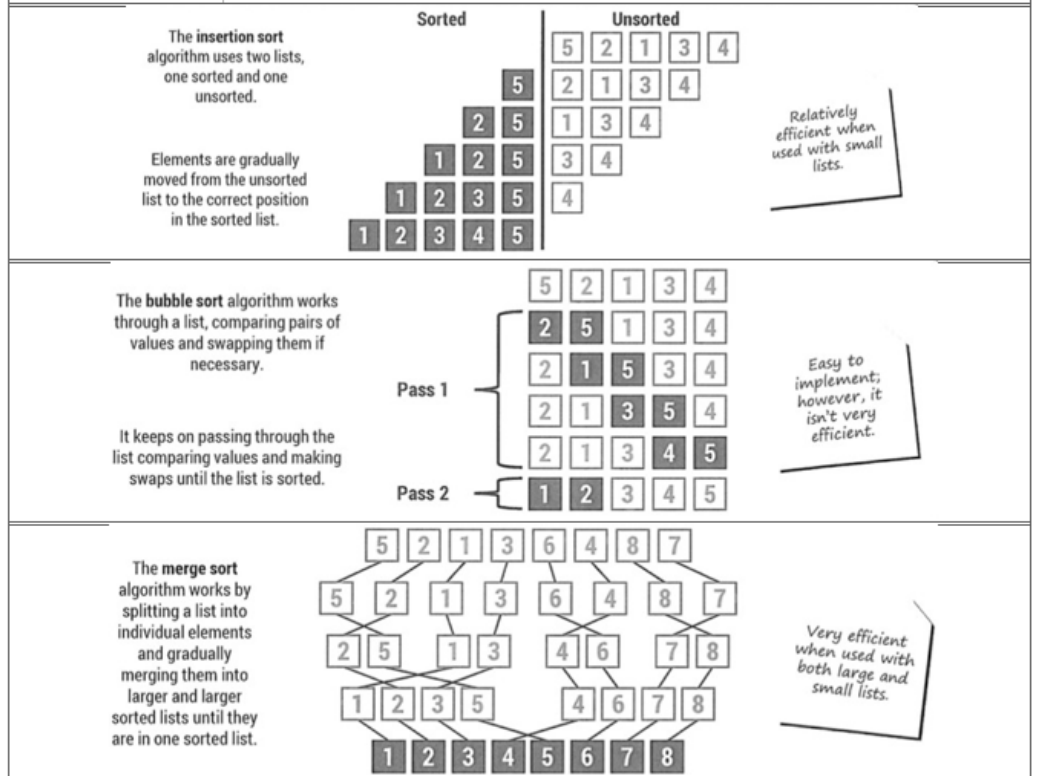
- ✓ Understand the main steps of each algorithm
- ✓ Understand any pre-requisites of an algorithm
- ✓ Apply the algorithm to a data set
- ✓ Identify an algorithm if given the code for it
- ✓ Show all your steps in detail
- x You do not need to remember the code for these algorithms

4. Insertion Sort

The Algorithm	<ul style="list-style-type: none"> The insertion sort inserts each item into its correct position in a data set one at a time.
Efficiency	<ul style="list-style-type: none"> It is a useful algorithm for small data sets. It is particularly useful for inserting items into an already sorted list. It is usually replaced by more efficient sorting algorithms for large data sets.

5. Merge Sort

The Algorithm	<ul style="list-style-type: none"> A very efficient method of performing a sort. Uses a divide and conquer method. Creates two or more identical sub-problems from the largest problem, solving them individually. Combines their solutions to solve the bigger program. Data set is repeatedly split in half until each item is in its own list. Adjacent lists are then merged back together.
Efficiency	<ul style="list-style-type: none"> Works very well for large data sets.



1. Key Terms	
Variable	A value stored in memory that can change while the program is running
Constant	A value that does not change while the program is running, and is assigned when the program is designed
Operator	A character that represents an action, e.g. "+" is a mathematical Operator
Assignment	Giving a variable or constant a value
Casting	Converting a variable from one data type to another
Input	A value that is entered into the program after the program has started running
Output	A value produced by the program and saved or displayed to the user

2. Correct Use of Data Types	
Integer	A positive or negative whole number used when arithmetic will be required
Real/Float	A positive or negative decimal number
Boolean	True or False
Character	A single alphanumeric
String	Multiple characters joined together

3. The Three Basic Programming Constructs	
Sequence	Executing one instruction after another
Selection	Program branching depending on a condition (e.g. if-then-else)
Iteration	sometimes called looping, is repeating sections of code. <u>Condition controlled</u> (e.g. for-loop) or <u>count controlled</u> (e.g. while-loop)

4. Common Arithmetic Operators		5. Common Comparison Operators	
+	Addition	==	Is equal to
-	Subtraction	!=	Is not equal to
*	Multiplication	<	Is lesser than
/	Division (Real/Float)	>	Is greater than
DIV	Division (Integer part only)	<=	Is lesser than or equal to
MOD	Modulus (i.e. remainder)	>=	Is greater than or equal to
^	Exponentiation (to the power)		

6. Use of Boolean operators (and, or not)
<pre># A condition may use Boolean operators. Each part of the condition must be # a complete true/false test, including any variables tested # This example tests whether there are some pupils and a teacher for a lesson if pupils >= 1 and (teachers ==1 or coverTeachers == 1) print("The lesson can go ahead.") else print("There are not enough people today!") endif</pre>

7. Example of Input Validation
<pre># Always validate inputs (check they are correct) before the code processes them # If the input is invalid, give the user a suitable message and ask for the input again # This example asks for an input between 1 and 10 (but assumes the input is an integer) ValidInput = False while NOT ValidInput userNum = input("Input a number from 1 to 10: ") if userNum >= 1 and userNum <= 10 ValidInput = True else print("I am sorry, that input was invalid.") endif endwhile</pre>

8. Arrays	
Definition	An array is a series of memory locations – or 'boxes' – each of which holds a single item of data, but with each box sharing the same name. All data in an array must be of the same data type. Unlike lists, arrays are static, meaning that their size is fixed when they are created.
Use	<ul style="list-style-type: none"> Indices start at 0 for the first data item ("zero indexed") Arrays may be single or multiple dimensions. Visualise dimensions as a column (single dimension) or a table (two dimension, rows and columns) In Memory two dimensional arrays are still stored in linear fashion
Example (1D)	<pre>myArray = ["A", "B", "C", "D"] # myArray[1] will return "B"</pre>
Example (2D)	<pre>my2Array = [["A", "B"], ["C", "D"]] # my2Array[0] will return ["A", "B"] # my2Array[1,0] will return "C"</pre>

Chaine Turn - a basic turn used in ballet and jazz dance, as well as other styles.

Ball Change - shifting weight from one foot to the other, and back again.

Grapevine - a dancer steps out to the side, crosses the other foot in front, steps out to side again, and crosses the other foot behind.

First Position - One of five ballet positions. Heels touch and toes pointed outward, forming a line with the feet. Arms are rounded.

Second Position - One of five ballet positions. Feet are separated about shoulders' width, with toes turned outward. Arms are outstretched with slight rounding.

Pique Turn - Dancer steps out on one foot, and a complete turn is made on releve while the opposing foot's toes are brought up to the inside knee.

Releve - To balance on your toes, either stationary or in movement.

Kick Ball Change - one foot kicks either forward, to the side or to the back, and then is brought behind for a ball change step.

Heel Pull - found in ballroom dancing, a half turn is completed on each heel.

Derriere - French for "directly behind the body." Referenced often in ballet.

Pas de Deux - a two-person dance, usually a male/female duet

Double Turn - two full rotations of any dance turn (pique, attitude, pencil, etc.)

Attitude Turn - while turning on releve, one leg is bent backward behind the body, leading the turn outward.

Glissade - a small leap to the side, almost a gliding motion across the floor.

Plie - a bend of the knees in any of the five ballet positions

Pas de Bourree - a connecting step used in dance combinations, it involves the transfer of weight from one foot to the other, usually to "prep" for a turn or leap.



DANCE

Component 3: Responding to a brief

Physical Skills

Alignment Correct placement of body parts in relation to each other.

Balance A steady or held position achieved by an even distribution of weight.

Control The ability to start and stop movement, change direction and hold a shape efficiently.

Coordination The efficient combination of body parts.

Extension Lengthening one or more muscles or limbs.

Flexibility The range of movement in the joints (involving muscles, tendons and ligaments).

Posture The way the body is held.

Stamina Ability to maintain physical and mental energy over periods of time.

Strength Muscular power.

Performance Skills

Facial Expression Use of the face to show mood, feeling or character.

Musicality The ability to make the unique qualities of the accompaniment evident in performance.

Projection The energy the dancer uses to connect with and draw in the audience.

Energy the force applied to dance to accentuate the weight, attack, strength, and flow of a dancer's movement



Rehearsal Skills

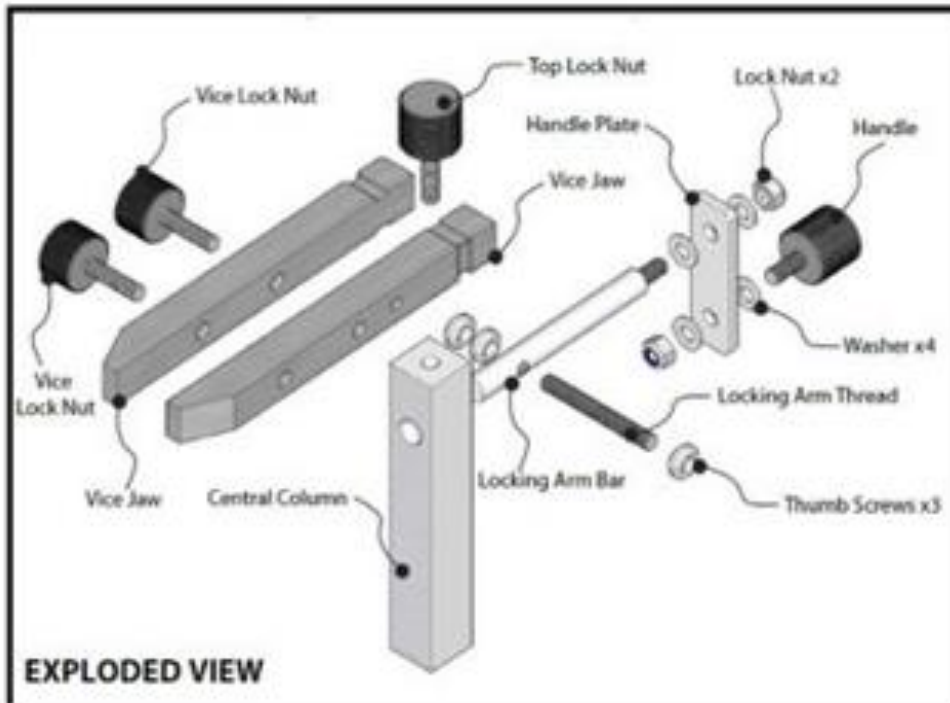
Teamwork: Working effectively as a team. Listening to everyone's ideas and showing respect.

Safe practice: Demonstrating safe practice at all times - hair up, jewellery off, socks off (including grippy socks).

Enthusiasm: Having an active role in the lesson - share ideas and collaborate with your peers.

Engagement: Remain engaged at all times. Stay on task and ask questions if needed.

Contributions: Offer useful feedback and comments to your group in order to continue your progression.



DATA PACK

Tap/Thread	Tap Drill Size
M1.6 x 0.25	1.25mm
M2 x 0.4	1.60mm
M2.5 x 0.45	2.05mm
M3 x 0.5	2.50mm
M3.5 x 0.6	2.90mm
M4 x 0.7	3.30mm
M5 x 0.8	4.20mm
M6 x 1	5.00mm
M8 x 1	7.00mm
M10 x 1.25	8.50mm

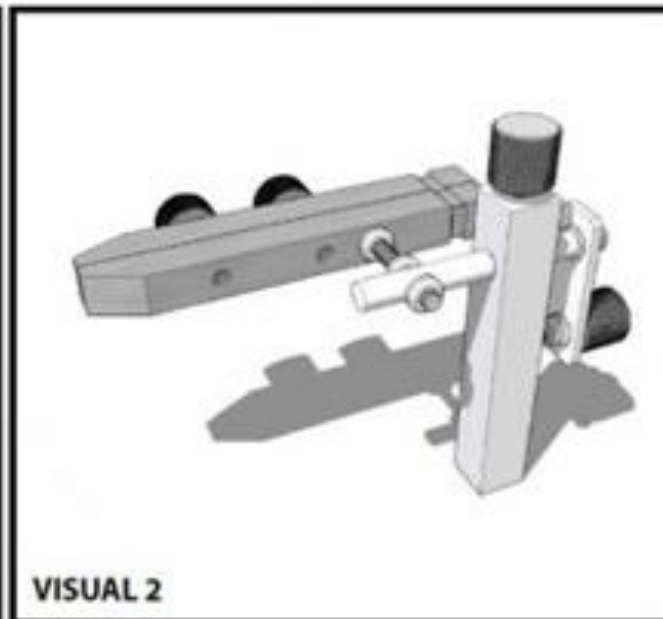
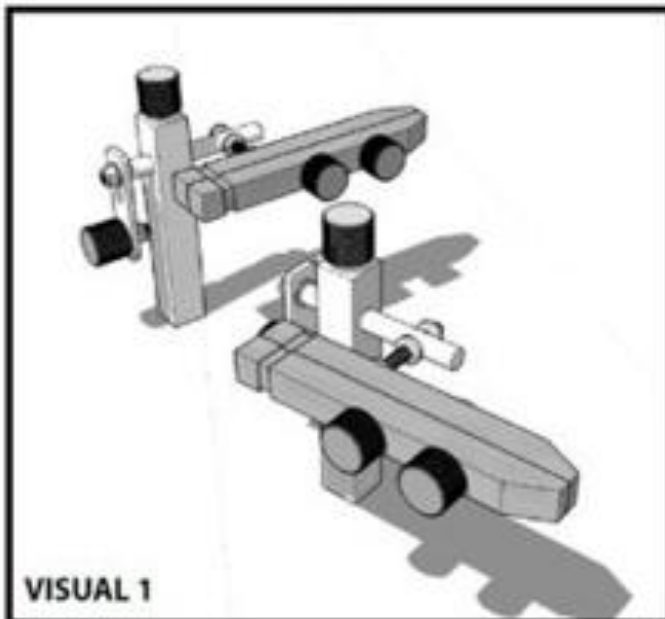
Thread Sizes

Diameter		Speed (rpm)					
mm/in	mm/in	Cast Iron	Steel	Aluminum	Brass	Copper	Wood
Twist drill bits							
1/16 - 3/16	1.6 - 4.8	3000	3000	2500	3000	3000	3000
3/16 - 5/8	12.7 - 15.9	3000	1000	2000	1200	2000	1000
3/16 - 5/8	11.3 - 15.4	1000	750	1000	750	1000	600
Solid insert bits							
3.2	3.2	1800	1200	1500	-	-	-
6.3	6.3	1800	1000	1000	-	-	-
9.5	9.5	1800	750	1000	-	-	-
12.7	12.7	1800	750	1000	-	-	-
15.9	15.9	1800	500	750	-	-	-
Fluteless bits							
1/4 - 5/8	6.3 - 15.9	2400	750	-	-	-	-
1/2 - 5/8	12.7 - 15.9	2400	500	250	-	-	-
3/4 - 1	19.05 - 25.4	1000	300	250	-	-	-
Spade bits							
1/4 - 1/2	6.35 - 12.7	2000	1500	-	-	-	-
5/8 - 1	15.9 - 25.4	1750	1000	-	-	-	-
1 1/8 - 1 1/2	-	1000	1000	-	-	-	-
1 5/8 - 2	-	700	750	-	-	-	-

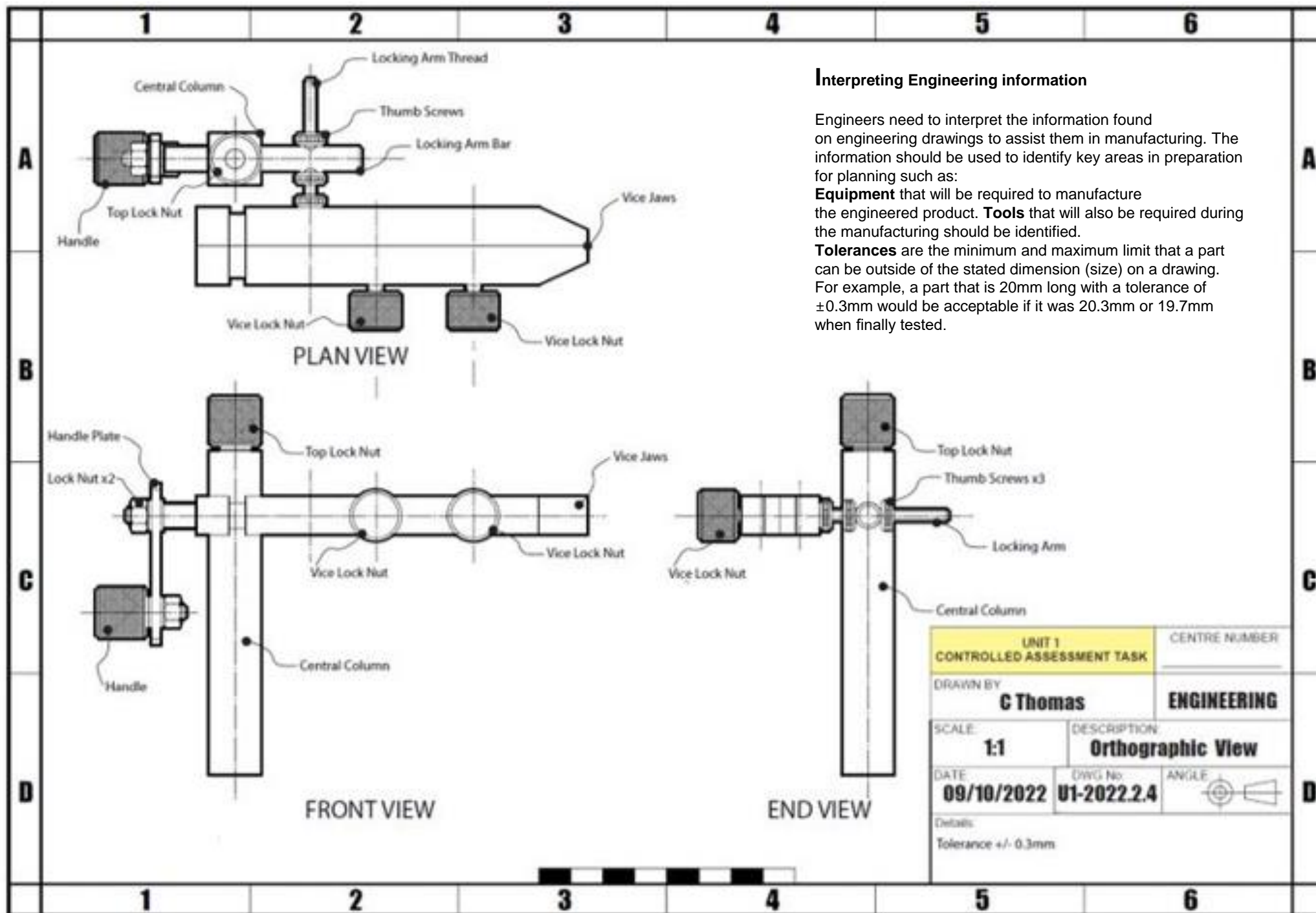
Drill Speeds

Material	Cutting Speed m/min	Swirl End Mill Feed in mm/tooth/rev	Stress End Mill Feed in mm/tooth/rev
Aluminum	180	0.050	0.080
Hard Plastic	150	0.060	0.100
Hard Wood	450	0.065	0.095
Soft Wood	500	0.070	0.110
MCP	450	0.100	0.150

Milling Feed Speeds



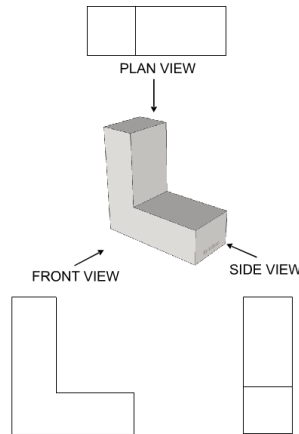
UNIT 1 CONTROLLED ASSESSMENT TASK		CENTRE NUMBER
DRAWN BY C Thomas	ENGINEERING	
SCALE 1:1	DESCRIPTION Component Parts Visual	
DATE 09/10/2022	DWG No U1-2022.3.4	



Layout out of an Engineering drawing

Before drawing an engineered component a suitable border and title block is required. The drawing border and title block has the following Dimensions

5mm space
10mm text line
5mm space
10mm border



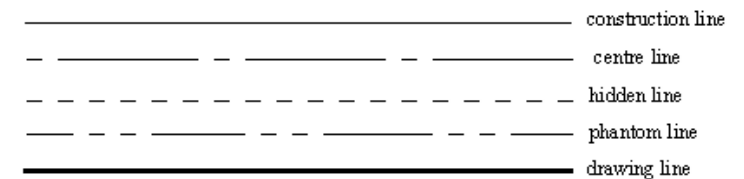
Types of lines

A **construction line** is a really light line. It is a line that can be removed for the final drawing, it may be a part of a circle that was drawn or a line that was used to lay the drawing out correctly.

A **centre line** shows the centre of an object or components that is equal in size on either side.

A **hidden line** shows a space, void or part of an object that can not be seen from the view that has been drawn. Although it cannot be seen it still needs to be represented and is shown as a dashed line.

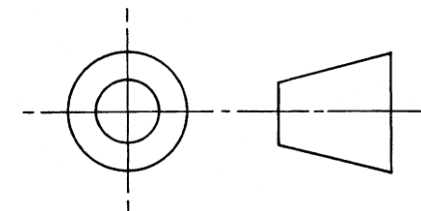
A **dimension line** shows the size or length of part of the component or object



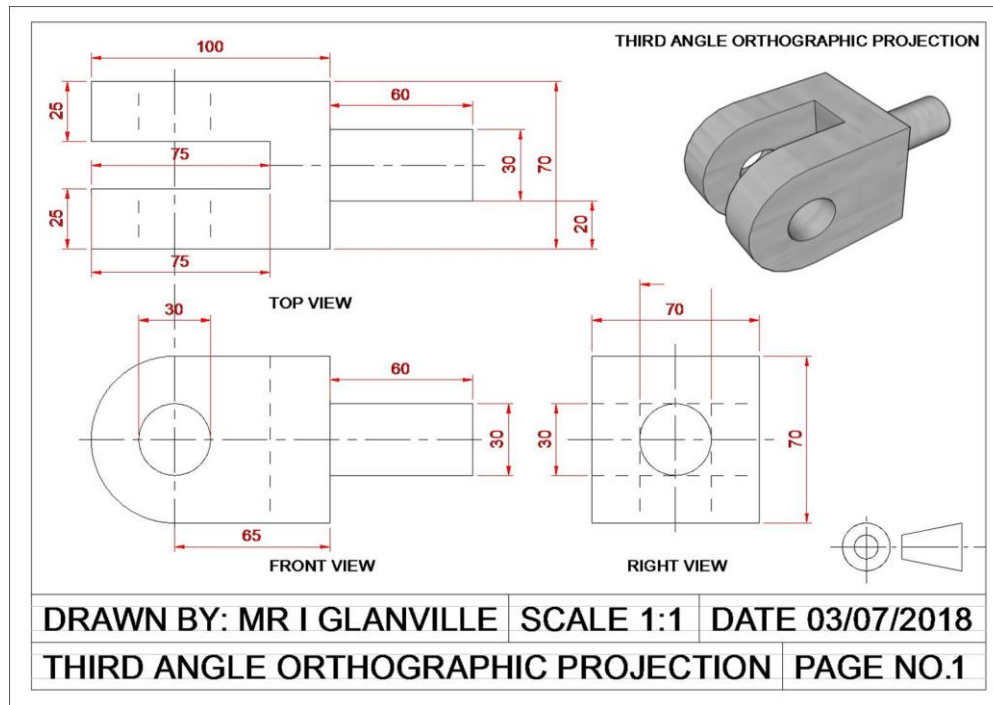
Third angle orthographic projection

The standard symbol that you will find on a drawing arranged in a third angle projection looks a traffic cone.

This will help remind you how to set out the drawing



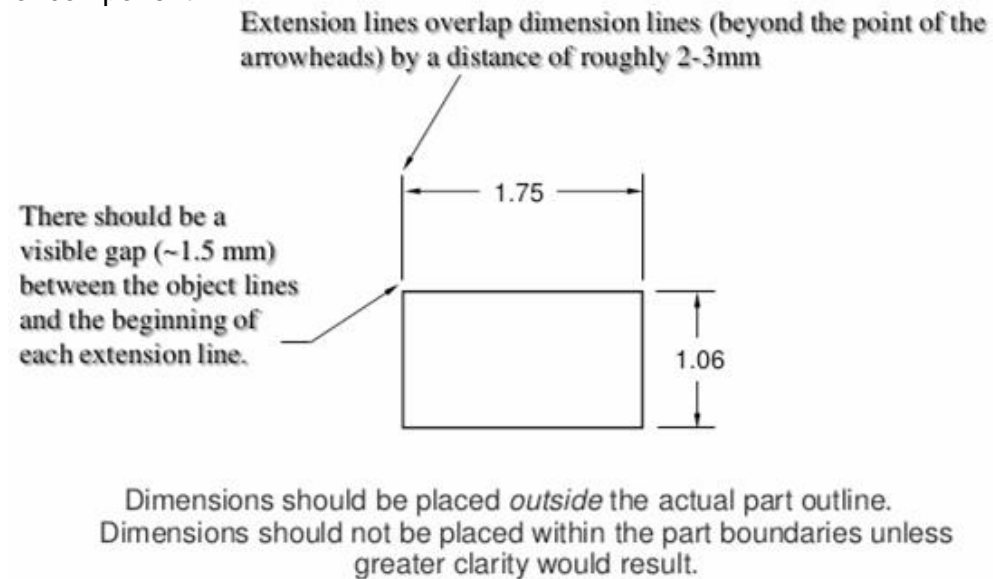
This means the first drawing you will see is the top view, then the side view.



Information required can include, name of person completing the drawing, what the drawing is, the name of the company, a date and perhaps a number if it is a series of drawings.

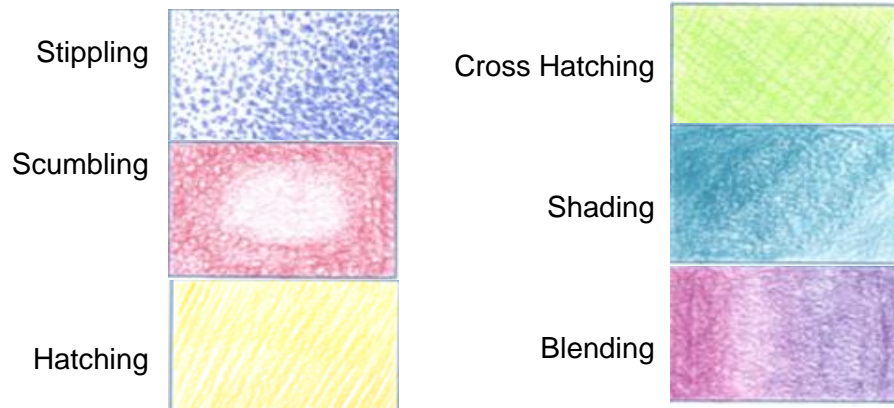
Representing dimension lines on a drawing

Dimension lines show the size or measurements of an engineered product or component

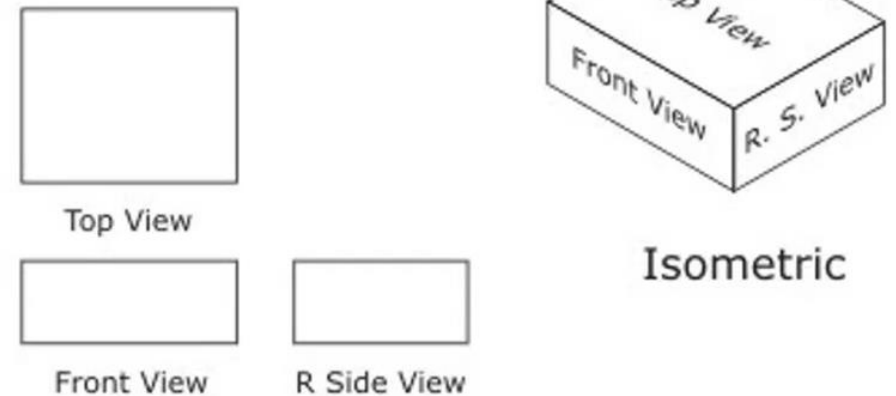


Types of rendering

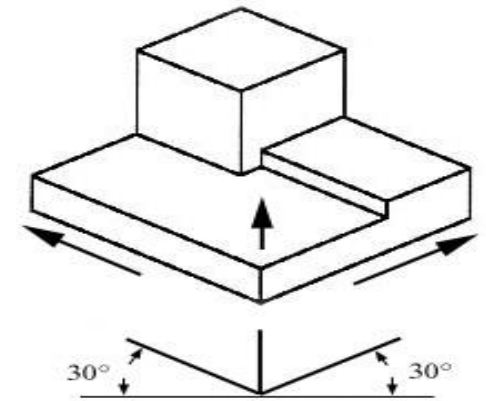
Shading or rendering a three dimensional isometric drawing will give the drawings a realistic feel and show materiality.(what it is made of).



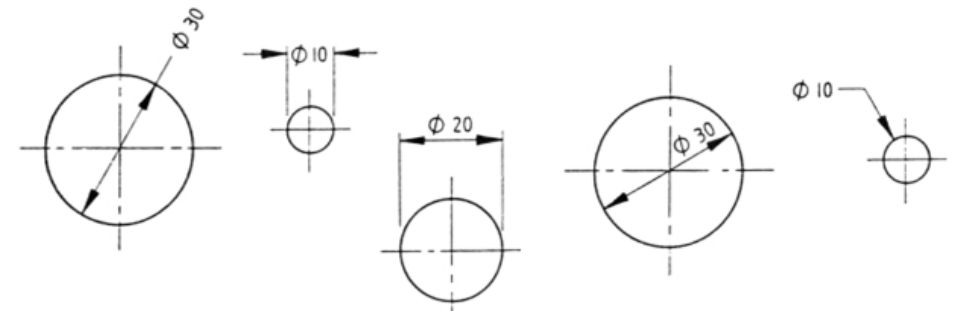
Isometric drawing



As well as a third angle orthographic projection, an engineering drawing can include an isometric projection which uses **vertical lines** and lines drawn at **30°** to horizontal.



Representing dimension lines on circles



All of the above are acceptable when showing the dimensions, diameter or radius of a circle

Yr10 Engineering

Processes

Marking out is a process where the required shape is marked onto the stock material.

Cutting can occur using a hand tool like a hacksaw, sheers or snips saw or fretsaw, or using machinery such as a metal bandsaw.

Milling uses a milling machine to cut slots in blocks of metals, and to face off edges.

Finishing is applied at the end stage of production. It could include a range of finishes such as polishing, knurling, enamelling, electroplating or anodizing.

Shaping can involve the removal of materials, called wasting, using saws, files or grinding equipment.

Drilling is a process used when a hole is required in a material. Drilling can be done using a hand drill, or drill press/pillar drill.

Turning uses a machine called a lathe that can be used to turn a piece of metal to create differently shaped round pieces. It can also be used to create threads and to apply different knurled finishes.

Joining metals can be done permanently using welding, brazing, epoxy resin adhesives and soldering. Temporary methods include nuts and bolts, hinges, screws and rivets. Soldering is used to heat join softer metals such as silver in jewellery (silver solder) or to attach electronic components to printed circuit boards.

Forming is a process used to change the shape of the material, for example by bending, compressing or extruding.

Using engineering tools

Files are used to remove material from stock form of metals and plastics. This is known as wastage.

Scribers are used to mark lines for cutting on materials such as metals and plastics.

Centre punch is a tool that is used to create a small depression in material prior to drilling. This helps locate the drill accurately on the material. Tap and die sets are used to create threaded components.

A tap used to thread a hole and a die to thread a bar (i.e. a bolt).

Hacksaws are a framed saw used mainly to cut metal.

An engineer's square is used in marking out material. It is set at 90° and is also used for parallel marking.

Vernier callipers are used to measure a range of sizes such as length of material, depth of holes, internal openings, etc.

Micrometres are highly accurate measuring tools used to measure sizes, i.e. material width/thickness.

Reamers enlarge, smooth, or contour an existing drilled hole in a work piece for a precise fit when installing fasteners or other parts in metalworking tasks.

Shears and snips are used to cut sheet metal. They may be straight or curved depending on the task.

In addition to the examples above, tools can also include items used on items of equipment known as tooling: Knurling tools are used to put a textured grip onto a metal bar using a lathe. A boring bar is used to enlarge a drilled hole to a precise dimension. They are available for a lathe or a milling machine. Parting tools are used on a lathes to form a narrow slot to assist in the removal of a work piece from the stock/waste material to remove.

Properties of materials

BZP steel is corrosion resistant because it has a coating of zinc, but it does not last forever. It has good tensile strength and can be machined to produce a screw thread. It is easier to work with than some other materials such as stainless steel. It is good to use for the screws, bolt and clamp because they need to be strong and durable.

Stainless steel is corrosion and stain resistant and has good chemical resistance properties. It is not a good electrical conductor, and most type of stainless steel are magnetic. Stainless steel is hard, has good tensile strength and can be also be machined. This makes it good for the screws and bolts that will get covered in mud and rain. Polyurethane 12

Polyurethane is a thermoset polymer and has good heat resistance. It is stiff and does not expand when heated. It is an electrical insulator and does not react with metals.

Nylon is a thermoforming polymer that has a high melting point. It can be self-lubricating and has very good wear resistance. It can be cut easily using stamping so washers can be made easily.

Aluminium is malleable and can be machined easily. It is also quite strong and light compared to steel. It is durable and does not rust. It can also be cast which makes it good for the calliper parts because they are complicated shapes. It will also keep the bike light.

Ferrous Metals - Contain Iron, eg stainless steel

Non Ferrous metals - No Iron, such as bronze or brass or a mixture of metal(alloy) often mixed to make it stronger.

Thermosetting polymers - heated, formed once cannot be reformed. Useful where a lot of heat is applied eg. Kettle.

Thermoforming polymers - heated and reformed over and over. Eg Acrylic.

ABS - Acrylonitrile Butadiene Styrene

Terms and meanings

Scale informs the engineer what scale should be used when using the drawing. A scale of 5:1 indicates that the drawings are five times smaller than the original product should be. This allows engineers to take dimensions (sizes) directly off the engineering drawings.

Finishes information gives details on what the finish of the part or product would look like, for example, a knurled finish on a tightening clamp.

Detail views are sometimes used by engineers to explain the details of more complex parts in an engineering drawing.

Title blocks are used to display key sections of information about the drawing, i.e. scale, who made the drawing, the date it was drawn, the drawing number.

Orthographic views are the standard views used to lay out a set of engineering drawings. They must conform to British standards (BS8888) to allow a common format of presenting information to various people such as manufacturers.

Section views show a drawing of a part that may have been cut through to allow the reader to see further details. Isometric views are often used by engineers and designers to produce a three-dimensional representation of the product or part

Casting and Forging

	Description	Examples	Reasons
Sand casting	Molten metal is poured into a mould created in sand. The mould is made by a wooden pattern, and metal is poured through a hole in the sand. The mould is in two parts called a cope and drag, which are separated to remove the completed item.	Man-hole cover Car parts	Dimensional accuracy is not vital. Can be used for large items.
Die casting	Molten metal is forced under high pressure into a mould. The mould is usually made from two parts of hardened tool steel.	Toy cars	Large quantities, which need to be accurate, are produced.
Investment casting	A pattern is made from wax, which is then surrounded by clay or other ceramic materials. Once completed, molten metal is poured into the mould, sometimes with pressure applied.	Compressor wheels	Used for complex shapes with a high degree of accuracy.

	Description	Examples	Reasons
Drop forging	A heated workpiece is held in a fixed die. A hammer or upper die is then dropped, using gravity, on to the workpiece to form it.	Engine cam shaft	High production rate. Used for small to medium-sized shapes. Good dimensional accuracy.
Press forging	Uses a slow squeezing action for forming the heated workpiece.	Aircraft landing gear	Metal penetrates the whole object.
Upset forging	Usually only one end of a bar needs to be shaped. The heated end of the workpiece is gripped in a fixed die and then struck by a moving die with a hammer blow.	Bolt head	Only one end needs shaping.

Manufacturing processes

Cutting processes

Drilling - holes, either all the way through or flat bottomed.

Sawing - mechanical or manual cutting of material

Filing - removing sharp edges or shaping round edges.

Shearing

Shaping processes

Turning - producing a range of shapes and diameters of round bar

Milling - removing material to create slots or parallel lines, grooves, recesses.

Forming processes

Casting - sand casting or die casting in a die (mould).

Forging - drop forging, upset forging, forcing heated metal into shape through shaping machinery.

Extruding - forcing soft polymer through a die.

Moulding - vacuum forming or injection moulding.

Joining and fabrication processes

Fastening - mechanical join between two components eg screws, nuts, bolts.

Bonding - glue and adhesives.

Soldering - melting solder to join electric components to a circuit board.

Brazing - Joining different metals together using heat.

Features of an engineered product

Dimensions - Size

Tolerance - How much bigger or smaller can a product be and still fit/work?

Surface finish - measure in micrometres (μm). How it might look or wear or resistant to corrosion/rust water.

Physical form - 2D 3D flat curved. Is it long joined to something, sharp edges etc.

Properties of materials

Mild steel - Good tensile strength, malleable and ductile.

Stainless steel - Tough and corrosion resistant

Wrought iron - Corrosion resistant and malleable

Aluminum - Soft, malleable, conductor of heat, corrosion resistant.

Titanium - Low density, good level of durability

Copper - Tough, ductile, good conductor of electric.

Polyurethane - Strong and impact resistant.

Acrylic - Stiff Durable and an insulator.

Polypropylene - Strong and resistant to stress and cracking,

Modern materials

Modern composite materials	Properties of the material	Examples of typical uses	Reasons for use	Improvements on traditional materials
Carbon fibre	Very high strength-to-weight ratio, easy to mould, does not rust	Formula 1 cars, aircraft parts, racing cycles	High strength, corrosion-resistant, high performance material	Much stronger for the same weight of material. Much easier to form by layering up or moulding
Kevlar®	High tensile strength, chemical resistant, non-flammable	Bullet-proof vests, helmets, guitar strings	Allows body armour to be lighter, therefore user can move more easily	Approximately five times stronger than steel by weight
GRP	Corrosion-resistant, durable, electrical insulator, inexpensive	Boats, garage doors, car body panels	Generally very strong and robust, lightweight, easy to form in complex shapes	More easily formed and stronger than metal for its weight

Relief of the UK

Relief of the UK can be divided into uplands and lowlands. Each have their own characteristics.

Key	
Lowlands	
Uplands	

Areas +600m: Peaks and ridges cold, misty and snow common. i.e. Scotland

Areas - 200m: Flat or rolling hills. Warmer weather. i.e. Fens

Formation of Coastal Spits - Deposition

Example: Dawlish Warren.

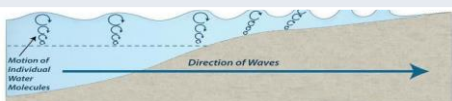
- Swash moves up the beach at the angle of the prevailing wind.
- Backwash moves down the beach at 90° to coastline, due to gravity.
- Zigzag movement (Longshore Drift) transports material along beach.
- Deposition causes beach to extend, until reaching a river estuary.
- Change in prevailing wind direction forms a hook.
- Sheltered area behind spit encourages deposition, salt marsh forms.

How do waves form?

Waves are created by wind blowing over the surface of the sea. As the wind blows over the sea, friction is created - producing a swell in the water.

Why do waves break?

- Waves start out at sea.
- As waves approaches the shore, friction slows the base.
- This causes the orbit to become elliptical.
- Until the top of the wave breaks over.



Size of waves

- Fetch how far the wave has travelled
- Strength of the wind.
- How long the wind has been blowing for.

Types of Erosion

The break down and transport of rocks – smooth, round and sorted.

Attritio n	Rocks that bash together to become smooth/smaller.
Solutio n	A chemical reaction that dissolves rocks.
Abrasio n	Rocks hurled at the base of a cliff to break pieces apart.
Hydrauli c Action	Water enters cracks in the cliff, air compresses, causing the crack to expand.

Types of Weathering

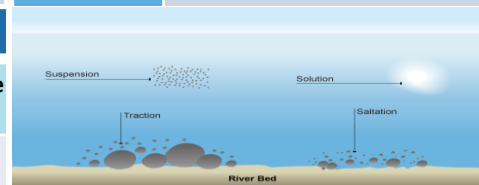
Weathering is the breakdown of rocks where they are.

Carbonation	Breakdown of rock by changing its chemical composition.
Mechanical	Breakdown of rock without changing its chemical composition.

Types of Transportation

A natural process by which eroded material is carried/transported.

Solutio n	Minerals dissolve in water and are carried along.
Suspensio n	Sediment is carried along in the flow of the water.
Saltatio n	Pebbles that bounce along the sea/river bed.
Tractio n	Boulders that roll along a river/sea bed by the force of the flowing water.



What is Deposition?

When the sea or river loses energy, it drops the sand, rock particles and pebbles it has been carrying. This is called deposition.

Mass Movement

A large movement of soil and rock debris that moves down slopes in response to the pull of gravity in a vertical direction.

- Rain saturates the permeable rock above the impermeable rock making it heavy.
- Waves or a river will erode the base of the slope making it unstable.
- Eventually the weight of the permeable rock above the impermeable rock weakens and collapses.
- The debris at the base of the cliff is then removed and transported by waves or river.

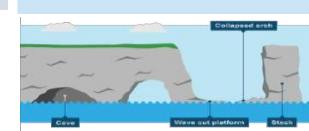


Formation of Bays and Headlands

- Waves attack the coastline.
- Softer rock is eroded by the sea quicker forming a bay, calm area causes deposition.
- More resistant rock is left jutting out into the sea. This is a headland and is now more vulnerable to erosion.

Formation of Coastal Stack

- Hydraulic action widens cracks in the cliff face over time.
- Abrasion forms a wave cut notch between HT and LT.
- Further abrasion widens the wave cut notch to form a cave.
- Caves from both sides of the headland break through to form an arch.
- Weather above/erosion below – arch collapses leaving stack.
- Further weathering and erosion leaves a stump.



Example: Old Harry Rocks, Dorset

Hard Engineering Defences

Groynes	Wood barriers prevent longshore drift, so the beach can build up.	✓ ✗	Beach still accessible. No deposition further down coast = erodes faster.
Sea Walls	Concrete walls break up the energy of the wave . Has a lip to stop waves going over.	✓ ✗	Long life span Protects from flooding Curved shape encourages erosion of beach deposits.
Gabions or Rip Rap	Cages of rocks/boulders absorb the waves energy, protecting the cliff behind.	✓ ✗	Cheap Local material can be used to look less strange. Will need replacing.

Soft Engineering Defences

Beach Nourishment	Beaches built up with sand, so waves have to travel further before eroding cliffs.	✓ ✓ ✗ ✗	Cheap Beach for tourists. Storms = need replacing. Offshore dredging damages seabed.
Managed Retreat	Low value areas of the coast are left to flood & erode.	✓ ✓ ✗	Reduce flood risk Creates wildlife habitats. Compensation for land.

Coastal Case Studies

Swanage: Features of Erosion & Deposition Geology: composed of resistant Limestone / chalk and less resistant clay and sands (soft rock)
Landforms of erosion: Headland - a protruding area of resistant rock. Bay - an enclosed area of less resistant rock. Cliffs and wave cut platforms. Caves. Arch Stack e.g. Old Harry Rocks

Landforms of deposition: Beaches / Bar / Spit e.g. Dawlish Warren. Tombolo / Sand dunes

Lyme Regis: Management

Reasons: Layer cake geology, susceptibility to landslides, powerful destructive waves in autumn/winter
Method: coastal management at Lyme Regis has involved two focus areas: 1. **Beach front** - to combat wave attack hard engineering has used (groynes, the Cobb extended, sea wall, rock armour). Beach nourishment has also been used. 2. **Slopes** – to prevent landslides soil nailing/piling has been used. **Effects** (benefits): 140 properties protected, secures tourism (worth £994 million); safeguards beach, improves access. Financially benefits outweigh costs 6:1.
Conflicts (costs): £21 million, environmental impact e.g. Langmore Gardens, terminal groyne syndrome

Water Cycle Key Terms

Precipitation	Moisture falling from clouds as rain, snow or hail.
Interception	Vegetation prevent water reaching the ground.
Surface Runoff	Water flowing over surface of the land into rivers
Infiltration	Water absorbed into the soil from the ground.
Transpiration	Water lost through leaves of plants.

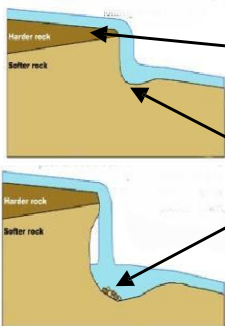
Physical and Human Causes of Flooding.

Physical: Prolong & heavy rainfall Long periods of rain causes soil to become saturated leading runoff.	Physical: Geology Impermeable rocks causes surface runoff to increase river discharge.
Physical: Relief Steep-sided valleys channels water to flow quickly into rivers causing greater discharge.	Human: Land Use Tarmac and concrete are impermeable. This prevents infiltration & causes surface runoff.

Upper Course of a River

Near the source, the river flows over steep gradient from the hill/mountains. This gives the river a lot of energy, so it will erode the riverbed vertically to form narrow valleys.

Formation of a



1) River flows over alternative types of rocks.

2) River erodes soft rock faster creating a step.

3) Further hydraulic action and abrasion form a plunge pool beneath.

4) Hard rock above is undercut leaving cap rock which collapses providing more material for erosion.

5) Waterfall retreats leaving steep sided gorge.

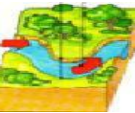
Middle Course of a River

Here the gradient get gentler, so the water has less energy and moves more slowly. The river will begin to erode laterally making the river wider.

Formation of Meanders & Ox-bow Lakes

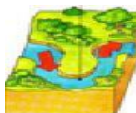
Step 1

Erosion of outer bank forms river cliff. Deposition inner bank forms slip off slope.




Step 2

Further hydraulic action and abrasion of outer banks, neck gets smaller.




Step 3

Erosion breaks through neck, so river takes the fastest route, redirecting flow



Step 4

Evaporation and deposition cuts off main channel leaving an oxbow lake.



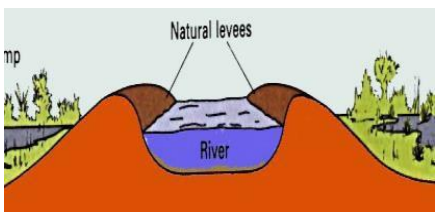
Lower Course of a River

Near the river’s mouth, the river widens further and becomes flatter. Material transported is deposited.

Formation of Floodplains and levees

When a river floods, fine silt/alluvium is deposited on the valley floor. Closer to the river’s banks, the heavier materials build up to form natural levees.

- ✓ Nutrient rich soil makes it ideal for farming.
- ✓ Flat land for building houses.



River Management Schemes

Soft Engineering

Afforestation – plant trees to soak up rainwater, reduces flood risk.
Demountable Flood Barriers put in place when warning raised.
Managed Flooding – naturally let areas flood, protect settlements.

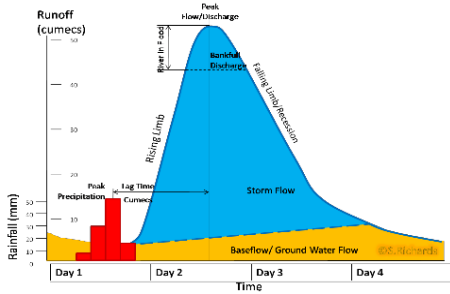
Hard Engineering

Straightening Channel – increases velocity to remove flood water.
Artificial Levees – heightens river so flood water is contained.
Deepening or widening river to increase capacity for a flood.

Hydrographs and River Discharge

River discharge is the volume of water that flows in a river. Hydrographs who discharge at a certain point in a river changes over time in relation to rainfall

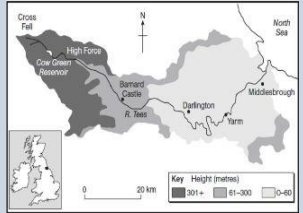
- Peak discharge** is the discharge in a period of time.
- Lag time** is the delay between peak rainfall and peak discharge.
- Rising limb** is the increase in river discharge.
- Falling limb** is the decrease in river discharge to normal level.



Case Study: The River Tees

River Tees: Features of Erosion & Deposition

Located in the North of England and flows 137km from the Pennines to the North Sea at Red Car.
Landforms of erosion: V shaped valleys interlocking spurs e.g. North Pennines. Waterfalls and gorges e.g. High Force
Landforms of deposition: Meanders and oxbow lakes e.g. Dalton on Tees. Levees and floodplains e.g. Croft on Tees. Estuary e.g. Tees Estuary



Banbury, Cotswold Hills: Flood Management


Reasons: Near River Cherwell, a tributary of the River Thames, has a history of flooding in 1998 and 2007 flooding houses and costing over £12.5 million. **Strategy:** Built embankment parallel to M40 to create flood storage area – area where rainwater is stored. Flow control structures backing up water behind gate in reservoir rather than continuing towards the town. Raise A361 main road plus improved drainage, new pumping station, creation of Biodiversity action plan (BAP) wetland habitat to store more water. **Effects (S):** Raised road can remain open during floods, quality of life improved from new habitats, reduced anxiety **(Ec) COST £18.5 MILLION**, protects 441 houses and 73 commercial properties. **(En)** New habitats created, new area able to be flooded

1. What are Natural Hazards?

Natural hazards are physical events such as earthquakes and volcanoes that have the potential to do damage to humans and property. Hazards include tectonic hazards, tropical storms and forest fires.

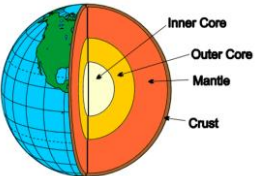
What affects hazard risk?

Population growth
Global climate change
Deforestation
Wealth - LICs are particularly at risk as they do not have the money to protect



2. Structure of the Earth

The earth has 4 layers
The core (divided into inner and outer), mantle and crust.



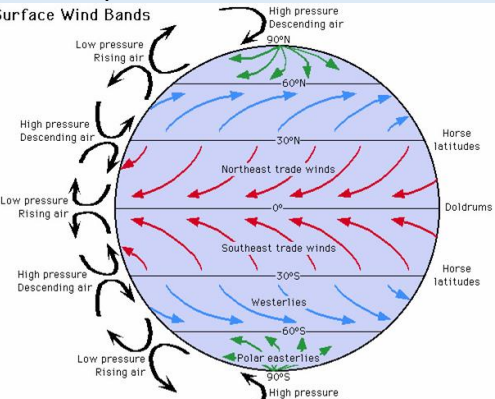
The crust is split into major sections called **tectonic plates**.

There are 2 types of crust:
Oceanic (thin and younger but dense) and
Continental (old and thicker but less dense).

Plates either move towards each other (**destructive** margin) away from each other (**constructive**) or past each other (**conservative**). These plates move due to convection currents in the mantle and, where they meet, tectonic activity (volcanoes and earthquakes) occurs..

9. Global atmospheric circulation

At the equator, the sun's rays are most concentrated. This means it is hotter. This one fact causes global atmospheric circulation at different latitudes.



4. Effects of Tectonic Hazards

Primary effects happen immediately. Secondary effects happen as a result of the primary effects and are therefore often later.	
Primary - Earthquakes	Secondary - Earthquakes
<ul style="list-style-type: none"> - Property and buildings destroyed. - People injured or killed. - Ports, roads, railways damaged. - Pipes (water and gas) and electricity cables broken. 	<ul style="list-style-type: none"> - Business reduced as money spent repairing property. - Blocked transport hinders emergency services. - Broken gas pipes cause fire. - Broken water pipes lead to a lack of fresh water.
Primary - Volcanoes	Secondary - Volcanoes
<ul style="list-style-type: none"> - Property and farm land destroyed. - People and animals killed or injured. - Air travel halted due to volcanic ash. - Water supplies contaminated. 	<ul style="list-style-type: none"> - Economy slows down. Emergency services struggle to arrive. - Possible flooding if ice melts - Tourism can increase as people come to watch.

5. Responses to Tectonic Hazards

Immediate (short term)	Long-term
<ul style="list-style-type: none"> - Issue warnings if possible. - Rescue teams search for survivors. - Treat injured. - Provide food and shelter, food and drink. - Recover bodies. - Extinguish fires. 	<ul style="list-style-type: none"> - Repair and re-build properties and infrastructure. - Improve building regulations - Restore utilities. - Resettle locals elsewhere. - Develop opportunities for recovery of economy. - Install monitoring technology.

6. Distribution of tectonic activity

Along plate boundaries.
On the edge of continents.
Around the edge of the Pacific.

3. Earthquakes and Volcanoes

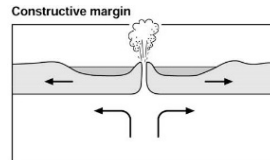
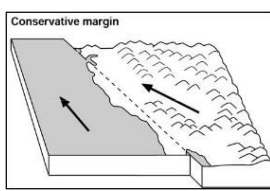
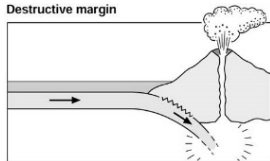
Volcanoes	Earthquakes
<ul style="list-style-type: none"> - Constructive margins – Hot magma rises between the plates e.g. Iceland. Forms Shield volcanoes. - Destructive margins – an oceanic plate subducts under a continental plate. Friction causes oceanic plate to melt and pressure forces magma up to form composite volcanoes e.g. the west coast of South America. 	<ul style="list-style-type: none"> - Constructive margins – usually small earthquakes as plates pull apart. - Destructive margins – violent earthquakes as pressure builds and is then released. - Conservative margins – plates slide past each other. They catch and then as pressure builds it is released e.g. San Andreas fault.

8. Comparing Earthquakes – Nepal and Chile

Nepal. April 2015. Magnitude 7.8.	Chile. 27th February 2010 Magnitude 8.8.
Primary Effects	
9000 deaths 23000 injured Over 500,000 homes destroyed Historic buildings including Dharahara Tower fell 26 hospitals and 50% of schools destroyed	500 deaths 12000 people injured. 220,000 homes destroyed Port and Airport badly damaged Lost power / Water / 56 hospitals damaged Cost of damage \$30 billion
Secondary Effects	
Avalanche on Mount Everest killing 19 people. Loss of income from tourism (which was 8.9% of Nepal's GDP). Rice seed stored in homes was ruined as homes collapsed. This caused food shortages.	1500km of roads damaged cutting off communities Coastal towns devastated by tsunamis - Warnings prevented deaths Fire at chemical plant leading to an evac.
Immediate Responses	
Nepal requested international help. UK's DEC raised \$126 million. Red Cross- tents for 225,000 people. UN and WHO distributed medical supplies to the worst districts. Facebook launched a safety feature so people could indicate they were safe.	International help for field hospitals National emergency services acted quickly Power & water services restored to 90% within 10 days National appeal raised \$60 million, enough to build 30,000 small shelters
Long term responses	
Rebuilding. World Heritage Sites reopen June 2015. Longer climbing season.	Strong economy meaning they didn't need much foreign aid. 4 years to fully recover. Reconstruction started 1 month after event.

7. Reducing the impact of tectonic hazards

Monitoring	Prediction
Seismometers measure earth movement. Volcanoes give off gases.	By observing monitoring data, this can allow evacuation before event.
Protection	Planning
Reinforced buildings and making building foundations that absorb movement. Automatic shut offs for gas and electricity.	Avoid building in at risk areas. Training for emergency services and planned evacuation routes and drills.

Natural Hazards



10. Tropical Storms

Occur in low latitudes between 5° and 30° north and south of the equator (in the tropics). Ocean temperature needs to be above 27° C. Happen between summer and autumn.

11. Sequence of a Tropical Storm

- Air is heated above warm tropical oceans.**
- Air rises under low pressure conditions.**
- Strong winds form as rising air draws in more air and moisture causing torrential rain.**
- Air spins due to Coriolis effect around a calm eye of the storm.**
- Cold air sinks in the eye so it is clear and dry.**
- Heat is given off as it cools powering the storm.**
- On meeting land, it loses source of heat and moisture so loses power.**

Climate change will affect tropical storms too. Warmer oceans will lead to more intense storms – but not necessarily more frequent ones.

18. Extreme weather in the UK

Rain – can cause flooding damaging homes and business.
Snow & Ice – causes injuries and disruption to schools and business. Destroys farm crops.
Hail – causes damage to property and crops.
Drought – limited water supply can damage crops.
Wind – damage to property and damage to trees potentially leading to injury.
Thunderstorms – lightning can cause fires or even death.
Heat waves – causes breathing difficulties and can disrupt travel.

12. Typhoon Haiyan, Philippines, November 2013

Primary Effects	Secondary Effects
At least 6340 killed 314 km/hr wind speeds. 5m Storm Surge 90% buildings in Tacloban destroyed Habitats & Crops destroyed	\$14 Billion of damage Water supply polluted 130,000 houses destroyed, leaving 4.2 million homeless Public Order – Looting Airports unusable for supplies
Immediate Responses	Long-term Responses
1,069 emergency shelters set up in public buildings. Disaster Emergency Committee helped 3,316,500 people outside these centres by providing aid. UK aid charities provided shelter, food and medical supplies.	UN appeal raised \$300 million. Typhoon warning systems have been improved. People are now better educated about how to respond.

Prediction	Planning	Protection
Monitoring wind patterns allows path to be predicted. Use of satellites to monitor path to allow evacuation	Avoid building in high risk areas Emergency drills Evacuation routes	Reinforced buildings and stilts to make safe Flood defences e.g. levees and sea walls Replanting Mangroves

13. Somerset Levels Floods. Feb - March 2014

Wettest January since records began in 1910. Successions of low pressure depressions making wet weather last several weeks. 350mm of rain in Jan / Feb (100mm over average) High tides, no dredging in 20 years

Social Effects

No deaths. 600 homes flooded, evacuation, power supplies off, stress

Economic Effects

Difficult to report cost. Early estimates over £10 million. More recent figures suggest £147 million. Livestock effected, people stranded, railway shut

Environmental impacts

Sewage polluting fields, debris from flood, stagnant water had to be reoxygenated before being pumped into rivers.

Management strategies	Managing Climate Change				
Homeowners coped as best they could, using sandbags to protect homes. Villages used boats to go shopping, attend schools etc. Army was deployed to offer assistance.	<table border="1"> <thead> <tr> <th>Mitigation</th> <th>Adaption</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> Alternative energy production will reduce CO₂ production. Planting Trees – helps to remove carbon dioxide. </td> <td> <ul style="list-style-type: none"> Changes in agricultural systems need to react to changing rainfall and temperature patterns and threat of disease and pests. Managing water supplies – eg. by installing water efficient devices </td> </tr> </tbody> </table>	Mitigation	Adaption	<ul style="list-style-type: none"> Alternative energy production will reduce CO₂ production. Planting Trees – helps to remove carbon dioxide. 	<ul style="list-style-type: none"> Changes in agricultural systems need to react to changing rainfall and temperature patterns and threat of disease and pests. Managing water supplies – eg. by installing water efficient devices
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14. Climate Change – natural or human?

Evidence for climate change shows changes before humans were on the planet. So some of it must be natural. However, the **rate** of change since the 1970s is unprecedented. Humans are responsible – despite what Mr Trump says!

15. Causes

Natural	Human
<ul style="list-style-type: none"> Orbital changes – The sun’s energy on the Earth’s surface changes as the Earth’s orbit is elliptical its axis is tilted on an angle. Solar Output – sunspots increase to a maximum every 11 years. Volcanic activity – volcanic aerosols reflect sunlight away reducing global temperatures temporarily. 	<ul style="list-style-type: none"> Fossil fuels – release carbon dioxide with accounts for 50% of greenhouse gases. Agriculture – accounts for around 20% of greenhouse gases due to methane production from cows etc. Larger populations and growing demand for met and rice increase contribution. Deforestation – logging and clearing land for agriculture increases carbon dioxide in the atmosphere and reduces ability to planet to absorb carbon through photosynthesis.

17. Effects of Climate Change

Social	Environmental
<ul style="list-style-type: none"> - Increased disease eg. skin cancer and heat stroke. - Winter deaths decrease with milder winters. - Crop yields affected by up to 12% in South America but will increase in Northern Europe but will need more irrigation. - Less ice in Arctic Ocean increases shipping and extraction of oil and gas reserves. - Droughts reduce food and water supply in sub-Saharan Africa. Water scarcity in South and South East UK. - Increased flood risk. 70% of Asia is at risk of increased flooding - Declining fish in some areas affect diet and jobs. - Increased extreme weather - Skiing industry in Alps threatened. 	<ul style="list-style-type: none"> - Increased drought in Mediterranean region. - Lower rainfall causes food shortages for orangutans in Borneo and Indonesia. - Sea level rise leads to flooding and coastal erosion. - Ice melts threaten habitats of polar bears. - Warmer rivers affect marine wildlife. - Forests in North America may experience more pests, disease and forest fires. - Coral bleaching and decline in biodiversity.

Global Temperature, 1880 - 2014

Land - Ocean Index: 1951-1980 Base

Source: Goddard Institute for Space Studies (GISS) and Climate Research Unit (CRU), prepared by ProcessTrends.com, updated by globalissues.org

16. Evidence for Climate Change

The Met Office has reliable climate evidence since 1914 – but we can tell what happened before that using several methods.

Ice and Sediment Cores

- Ice sheets are made up of layers of snow, one per year. Gases trapped in layers of ice can be analysed. Ice cores from Antarctica show changes over the last 400 000 years.
- Remains of organisms found in cores from the ocean floor can be traced back 5 million years.

Pollen Analysis

- Pollen is preserved in sediment. Different species need different conditions.

Tree Rings

- A tree grows one new ring each year. Rings are thicker in warm, wet conditions
- This gives us reliable evidence for the last 10 000 years.

Temperature Records

- Historical records date back to the 1850s. Historical records also tell us about harvest and weather reports.

GEOGRAPHY

Learning Aim A - HEALTH CARE CONDITIONS

Conditions	Symptoms	Needs	Professionals
Arthritis	A condition affecting the joints, causing inflammation, pain and difficulty with movement.	<ul style="list-style-type: none"> • Medication to reduce swelling and pain • Physiotherapy to increase mobility • Lifestyle changes, such as improved diet and increased exercise to help joint function • Surgery to replace joints like knees and hips • Regular medical examinations to monitor effectiveness of treatment • X-rays, MRI scans or CT scans to check progression of condition • Mobility aids to help support movement • Adaptations to home to help with mobility 	<ul style="list-style-type: none"> • GP • Pharmacist • Rheumatologist • Physiotherapist • Dietitian • Radiologist • Surgeon • Occupational therapist
Coronary heart disease (CHD)	A condition where the arteries are blocked by fatty deposits, leading to difficulties with the flow of blood, causing pain in the chest and upper body and shortness of breath.	<ul style="list-style-type: none"> • Medication to lower cholesterol and blood pressure, to stop clots from forming and to increase blood flow to the heart • Low fat and low salt diet to reduce cholesterol • Increased exercise to improve heart function • Support to stop smoking to reduce damage to the heart • Meditation and relaxation to reduce stress • ECG monitoring to check heart function • Surgery to widen blocked arteries or heart bypass • Surgery to implant pacemaker 	<ul style="list-style-type: none"> • GP • Pharmacist • Dietitian • Practice nurse • Counsellor • Cardiologist • Surgeon
Dementia	A condition affecting the brain, causing impairments to cognitive skills including memory and thinking and leading to behavioural difficulties.	<ul style="list-style-type: none"> • Medication to improve symptoms such as memory loss and confusion • Lifestyle changes such as to diet and exercise to improve quality of life • Personal care • Safeguarding • Emotional support • Stimulating activities to improve cognitive skills, such as reminiscence • Regular medical examinations to monitor progression of condition 	<ul style="list-style-type: none"> • GP • Pharmacist • Homecare worker • Care assistant • Specialist dementia nurse • Geriatrician • Psychiatrist/neurologist/ psychologist
Diabetes (type 2)	A condition where not enough insulin is produced or where the body cannot use the insulin that is produced, causing difficulties regulating glucose levels. This can lead to tiredness, weight loss, excess thirst and extreme tiredness.	<ul style="list-style-type: none"> • Changes to diet, exercise and weight management to help manage blood sugar levels • Medication to help control blood sugar levels • Self-monitoring of blood glucose levels at home • Regular medical examinations to monitor progression of condition • Blood tests to monitor glucose levels and inform treatment plan 	<ul style="list-style-type: none"> • GP • Pharmacist • Practice nurse • Specialist diabetes nurse • Dietitian • Endocrinologist
Obesity	A condition where a person is significantly overweight with a body mass index (BMI) above 30 kg/m ² , causing risk of developing serious conditions such as heart and liver disease and diabetes.	<ul style="list-style-type: none"> • Lifestyle changes to lose weight including diet and exercise and reduction of alcohol intake • Medication to reduce appetite, increase metabolism, or block the absorption of fat • Weight loss surgery to reduce food intake or to re-route food to block the absorption of calories • Regular blood tests may also be recommended to monitor cholesterol and blood sugar levels • Weight loss monitoring to inform treatment plan 	<ul style="list-style-type: none"> • GP • Pharmacist • Dietitian • Practice nurse • Psychologist/therapist/counsellor • Personal trainer

Learning Aim A - HEALTH CARE CONDITIONS

Conditions	Symptoms	Needs	Professionals
Asthma	A condition affecting the lungs, causing the airways to narrow and leading to difficulties in breathing and wheezing.	<ul style="list-style-type: none"> • Inhalers to prevent asthma attacks and give relief from the symptoms of an attack • Medication to reduce inflammation in the airways and improve lung function • Peak flow monitoring to track lung function • Regular medical examinations to monitor and adjust treatment plan 	<ul style="list-style-type: none"> • GP • Pharmacist • Practice nurse • Asthma clinic team • Emergency responders • Paramedics • A&E doctors and nurses
Chronic obstructive pulmonary disease (COPD)	A condition affecting the lungs where the airways become narrow. Symptoms include shortness of breath, coughing, wheezing and chest tightness, which can worsen over time and significantly impact daily activities.	<ul style="list-style-type: none"> • Medication to relax the muscles around the airways, making it easier to breathe • Oxygen to help with breathing • Lifestyle changes to diet and to stop smoking • Physiotherapy to improve lung function and reduce symptoms • Regular monitoring of lung function to adjust medication • Chest X-rays and CT scans to monitor changes in lungs • Emergency plans in place 	<ul style="list-style-type: none"> • GP • Pharmacist • District nurse • Radiologist • Cardiologist • Emergency responders • Paramedics • A&E doctors and nurses
Sensory impairment	A condition in which one or more of the senses (sight, hearing, taste, smell, touch) is affected, resulting in conditions including vision and hearing impairment.	<ul style="list-style-type: none"> • Aids such as corrective lenses, glasses or contact lenses (vision), hearing aids (hearing) • Assistive devices such as magnifiers or screen readers can also be used to aid reading and other visual tasks. Hearing loops can be used where available • Surgery such as cochlear implants • Regular medical assessments to ensure that any changes or developments in the condition are detected and managed appropriately • Communication strategies such as sign language, lip reading or speech therapy 	<ul style="list-style-type: none"> • Optician • Ophthalmologist • Audiologist • Sign language interpreters • Speech therapist • Occupational therapist
Physical impairment	A condition in which a person's physical abilities are limited, making it difficult to perform certain tasks or activities. This can include conditions such as paralysis, amputation, mobility issues, deterioration of muscles and flexibility due to pain or the ageing process.	<ul style="list-style-type: none"> • Physical examinations to identify the extent of the impairment • Medication for pain and inflammation • Surgery • Rehabilitation after injury or surgery • Physiotherapy • Assistive devices including prosthetics and mobility aids • Lifestyle changes including changes to diet and exercise plans 	<ul style="list-style-type: none"> • Pharmacist • Physiotherapist • Orthopaedic surgeon • Occupational therapist • Homecare worker • Dietitian
Learning disability	A condition that affects a person's ability to learn and process information. People with learning disabilities may have difficulty with reading, writing, maths, personal or social skills.	<ul style="list-style-type: none"> • Assessment to determine the type of disability and the individual's needs • Individualised Education Plan (IEP) outlining any adjustment needs for educational settings • Therapies, such as speech therapy, occupational therapy and psychological therapies • Acquisition of life skills and independent living skills • Support for and protection of rights and choices • Advocacy to assist with expressing needs and wishes 	<ul style="list-style-type: none"> • Psychologist • Learning disability nurse • Speech and language therapist • Occupational therapist • Support worker • Teaching assistant

Learning Aim A - HEALTH CARE SERVICES AND CASE STUDIES

Primary care

This is the first point of contact that an individual has with health services. Individuals would usually decide to use a primary care service themselves, by self-referral, because they have symptoms indicating that they have a health problem.

Secondary care

This is more specialist treatment or care usually given in a hospital or a dedicated clinic. Service users are commonly referred to secondary care services by a primary care professional like a GP via professional referral.

Tertiary care

This is specialised health care which is accessed by referral from a primary or secondary health professional. Tertiary care facilities will have staff and facilities for advanced medical investigation and treatment.

Allied health professionals

Professionals who work in a range of specialisms, who support individuals who have physical and mental health problems. They are involved in treating, rehabilitating and improving the lives of patients.

Allied health professionals include physiotherapists, speech and language therapists, occupational therapists, dietitians, art therapists, drama therapists, osteopaths, paramedics, prosthetists, radiographers, podiatrists, operating theatre practitioners and orthoptists.

Jan is 20 years old and has recently had problems catching her breath. She is experiencing a tight chest and wheezing.

Apply it:

How can primary care services meet the specific health needs of Jan who has asthma?

Jan can self-refer by booking an appointment with her GP. The first step is for the **GP** to formally diagnose Jan and assess the severity of her asthma. This may involve conducting lung function tests like peak flow, reviewing her medical history and asking about her symptoms.

Once Jan's asthma has been diagnosed, primary health services can provide her with the appropriate medications to manage her symptoms. This may include inhalers to open her airways and reduce inflammation.

Once the doctor has prescribed the medication, she would be able to go to a local pharmacy or chemist where the pharmacist would dispense the medication. The **pharmacist** could also answer any general queries Jan has about the medication, such as how often she should take it, potential side effects and how the asthma medication may interact with any other medications Jan takes.

Jan will need educating about asthma management, including how to use her inhaler correctly, recognising triggers that can cause an asthma attack, and understanding the signs and symptoms of worsening asthma. This can be provided at the regular asthma clinics held at her GP's surgery by the **practice nurse**.

If Jan experiences a severe asthma attack or other complications, she may need emergency treatment. This can be provided by **emergency responders, paramedics** and the **A&E department**, and will usually involve the use of nebulisers to stabilise her condition.

Apply it:

How can secondary care services meet the specific health needs of Jan who has asthma?

If Jan's asthma is not well-controlled with primary care, she may need to be referred to a specialist clinic at the local hospital. Specialists at an **allergy clinic** can investigate what may be triggering the asthma attacks. They will question Jan about her medical history and any family history of allergies. They will also carry out skin and blood tests to try and identify a potential trigger for Jan's asthma attacks.

Another service that can be provided at Jan's local hospital is the **asthma clinic**. At the clinic, additional tests can be undertaken, such as detailed lung function tests, measurement of inflammation in the lungs, blood tests, sputum analysis and CT scans which are not available at a GP's surgery. At the clinic, specialists provide expert advice on managing her condition.

Specialist asthma nurses can help Jan develop an asthma action plan; a personalised plan that outlines steps to take when her asthma symptoms worsen. The plan includes a list of medications to take, signs to look out for, and when to seek medical attention.

If Jan's asthma symptoms are not well-controlled with her current medications, the specialist clinic can look at some non-standard treatments and can adjust her medication to find a more effective treatment plan.

Apply it:

How can primary and secondary services work together to meet Jan's needs?

Primary and secondary healthcare providers will share information with each other about Jan's condition, treatment plan, and any changes to her medications or symptoms. This can help ensure that everyone involved in her care is on the same page and working towards the same goals.

When the GP refers Jan to secondary services, they will write a letter with key information that the secondary service needs to know about Jan's condition and the reasons for the referral. Any results of tests carried out at the asthma or allergy clinics, would be sent to the GP, so that the GP is aware of their findings and can advise Jan accordingly.

Primary and secondary healthcare providers can coordinate their care efforts to ensure that Jan receives the best possible care.

This can include discussing any changes in Jan's condition or treatment plan.

Both primary and secondary healthcare providers can educate Jan about her asthma and how to manage it effectively. This can help ensure that Jan understands her condition and feels empowered to take an active role in her own care.

	Examples	Tertiary Care Additional Services	
Primary Care Services	<ul style="list-style-type: none"> • General Practitioner (GP) • Dentist • Accident and Emergency (A&E) • Optician/Optomtrist • Walk In Centre • Pharmacist 	Rehabilitation	<ul style="list-style-type: none"> - Helps people recovery from illness or injury - Restores the person back to their original state such as someone who has had a stroke, may have a rehab programme which is based around physiotherapy
Secondary Care Services	<ul style="list-style-type: none"> • Cardiologist • Psychiatry • Paediatrics • Neurology • Orthopaedics • Gastroenterology 	Palliative and End of Life Care	<ul style="list-style-type: none"> - For individuals who have an illness or disease which has no cure - They help to manage pain, physical symptoms, improve quality of life and offer emotional and spiritual support to the individual and their family
Tertiary Care Services	Specialist care in the following areas: <ul style="list-style-type: none"> • Spinal surgery and recovery • Cardiac medication, surgery and recovery • Cancer care extra support • Pain management • Premature and poorly newborn babies 	Hospice at Home	<ul style="list-style-type: none"> - Is a service that provides expert care and support for people who have advanced illnesses at home - Support is given by nurses and carers who work closely with a GP/doctor and community team
Allied Health Care Professionals	<ul style="list-style-type: none"> • Physiotherapist • Paramedic • Dietician • Occupational Therapist • Speech and Language Therapist • Art Therapist 		

Learning Aim A - SOCIAL CARE

Reasons For Needing Support		
Children and Young Adults	Adults and Children with Specific Needs	Older Individuals
<ul style="list-style-type: none"> • Parents/carers are ill • Family relationship problems • Child may need protection (eg from abuse and neglect) • Child may have behavioural issues or profound additional needs 	<ul style="list-style-type: none"> • Learning Disabilities • Sensory Impairments • Long Term Health issues 	<ul style="list-style-type: none"> • Breathing problems • Depression • Dementia • Osteoporosis • Arthritis/ Poor mobility

HEALTH AND SOCIAL CARE

SOCIAL Care Services/Providers		
Services for Children and Young Adults		
Foster Care <ul style="list-style-type: none"> - For children who are unable to live with family - It could be for a short period of time until they can return home - Or it could be for long periods of time and may lead to adaptation or independent living - Foster homes provide a safe and stable environment for a children to grow and develop 	Youth Work Services <ul style="list-style-type: none"> - Is a service which supports young people aged between 11 and 25 years old - They help with personal and social development and help you build skills to ensure that you are independent and building a better future for yourself 	Residential Care Homes <ul style="list-style-type: none"> - Is a place where children and young adults live together - They provide a living environment where you all play a part and continue life as normal, such as attending school - They provide you with everything you would need to grow and develop
Services for Adults and Children with Specific Needs		
Residential Care <ul style="list-style-type: none"> - For individuals who have specific care needs and are safer living in residential care than their own home - They provide accommodation, laundry and meals - Different residential care homes could be for either, learning, sensory or long term disabilities - The staff are trained to support the specific needs and are available 24 hrs 	Domiciliary Care <ul style="list-style-type: none"> - This is where care workers visit the individual at home to help with their personal care and other daily activities - Some individuals require even more specialist care, and this can be provided as long as the carer is training. Such as feeding tubes 	Respite Care <ul style="list-style-type: none"> - Is a service/place where the family of the individual who has a specific need can have some free time - The individual can be looked after by trained carers either at the family home or in a residential care home - It allows for the family to have a break from being a 'carer' and relax without the pressures of looking after someone
Services for Older Adults	Additional Care	
<ul style="list-style-type: none"> - As we get older, our body systems function less effectively and we may require additional help in some areas of our lives - Older people normally want to stay at home, so if they can they can be supported by a carer or a personal assistant <p>They may need to move into a residential care home or nursing home where support is provided on a day to day bases such as cleaning, cooking and personal care.</p>	Informal Care <ul style="list-style-type: none"> - Is given by friends, family or neighbours - They are not qualified carers and are not paid (unless they meet the carers allowance criteria) - They can help with household task, such as cooking, cleaning - They can help with personal care, such as washing, feeding and dressing - They can also provide company to prevent loneliness and isolation 	Voluntary Care <p>Charities - Voluntary organisations that support individuals and their families e.g.. Homestart.</p> <p>Faith-based groups – Supporting Individuals who share religious or Spiritual beliefs e.g. Islamic relief.</p> <p>Community groups – Support within the community. E.g. Food banks</p>

Learning Aim A – BARRIERS TO ACCESSING SERVICES

Barriers To Care Services

Physical barriers Something that stops someone physically accessing the service they need e.g. Stairs into a GP surgery	Cultural barriers Something which reduced a persons' ability to access a service due to cultural beliefs, practices and needs e.g. worrying they will be judged or not taken seriously because of their beliefs	Intellectual/ Learning Disabilities barriers Cannot access services because they did not know about them or cannot fully understand the information or requirements of them, their condition or their care
Sensory barriers Something which reduces a persons' ability to access a service due to a sensory impairment e.g. not being able to hear what is happening around you due to a deterioration in hearing	Psychological barriers Affecting the way an individual thinks about a service preventing them from trusting or using the services due to anxieties or mental health conditions	Language barriers Something which reduces a person's ability to access a service due to not understanding the words or language used e.g. having English not as a first language
Social barriers Cannot access services because they struggle in social situations	Geographical barriers Being unable to access a service due to location, e.g. poor public transport in a village making it difficult to get to the local GP surgery	Financial barriers Being unable to access a service due to money e.g. not being able to afford care/therapies or prescriptions

Physical Barriers and Overcoming Them

People can struggle with accessing care services, which could be caused by the building facilities or if the individual has a specific condition or disability which requires them to use mobility equipment, such as wheelchairs or walking frames.

We would also need to consider how the individual actually get to each care service as this may also cause some difficulties.

It is also important to think about the physical difficulties individuals may face when during their appointment/consultation or procedure. An individual who has arthritis in their next and back may find it painful to sit in a dentist chair for long periods of time.

Why People Struggle With Access	Overcoming Access Difficulties
<ul style="list-style-type: none"> • Uneven and rough pavements/surfaces • Building with narrow doorways/corridors • Small bathroom facilities • Getting on and off public transport • Not having lifts or lifts that work • Getting up steep slopes • Climbing numerous amounts of steps/stairs • Bad weather - rain, ice or snow • Slippery surfaces due to rubbish or leaves 	<ul style="list-style-type: none"> ✓ Facilities to provide ground floor and easy access ✓ Facilities to provide electric doors ✓ Facilities to adapt buildings to ensure wide corridors, doorways and ensure working lifts ✓ Plan routes carefully to avoid obstacles ✓ Plan appointment/access for quieter days ✓ Keep mobility equipment regularly maintained such as replacing batteries in electric wheelchairs ✓ Avoid busy times when traveling to care service ✓ Have allocated parking closer to the entrance ✓ Install hoists to help move physically disabled patients safely

Geographical Barriers and Overcoming Them

People who need to access health and social care services may have problems which stops them from travelling long distances or there may also be difficulties if the individual does not drive. However even if a service user did live close, there are still some geographic barriers which they must face even on short distances.

Reasons for Geographic Barriers

- Direct transport links may not be available especially if you live rurally
- Travelling to an appointment multiply times a week can be exhausting, especially for people who are poorly
- Specialist services such as chemotherapy may only have one facility in the local area, meaning travel is needed
- Cost of fuel and car parking when travelling
- For those who walk, the route may be unsafe
- Public transport may not run at the times which is it needed to make an appointment

Overcoming Geographical Barriers

- ✓ Voluntary services may offer transport to and from hospital or GP appointments
- ✓ Mobile treatment units may travel to your area, so you could plan your check up or treatment
- ✓ Hospital offers refunds on car park charges for specific treatments such as cancer
- ✓ Offering home visits for patients struggling to travel
- ✓ Family members may be able to drive you to your service if you do not have a car
- ✓ Partner may drive you if you are feeling too poorly or unwell

Financial Barriers and Overcoming Them

In the UK, we do not pay for majority of our NHS treatments, due to our taxation scheme. For example, seeing a doctor or using the emergency service are all free under the NHS.

Reasons for Financial Barriers

However, there are some health and social care services which are NOT free:

- Optical and Dental Care and Prescriptions
- Complementary Therapies such as massages which could help muscular pain
- Care support such as private care assistants who help with cooking, cleaning, dressing and day to day activities
- Chiropody (treatments of the feet, sometimes for painful conditions when walking)

There are also additional costs which need to be considered:

- Petrol and parking charges
- Taxi or Bus charges
- Loss of income during treatment
- Childcare costs when at appointments

Overcoming Financial Barriers

- ✓ You may meet specific criteria which means you are exempt (you do not have to pay) such as being under the age of 16 = free dental care, prescriptions and eye care including glasses)
- ✓ Claiming back costs if they meet specific criteria such as the NHS Low Income Scheme
- ✓ Purchasing an NHS Prescription Prepayment Certificate, which is a one-off cost, however it covers all prescriptions and dental care.
- ✓ Asking family members to help you, however this in itself may cause other difficulties
- ✓ NHS vouchers are available to some people to reduce the cost of eye tests, glasses and lenses

Social and Cultural Barriers and Overcoming Them

Social background refers to how a person was raised and their position in society.

Cultural background refers to the groups or communities a person belongs to, based on factors such as their race, religion and gender.

People from different social and cultural backgrounds can experience different barriers such as...

Reasons for Social and Cultural Barriers

Lack of awareness

- People not knowing what their symptoms are
- Not being aware of the services available to them

Differing cultural beliefs

- May have different needs such as diet, specific prayer time or may wish to be treated by someone of the same gender

Social Stigma

- Is when a person is seen in a negative way and maybe discriminated against, due to health condition, mental and sexual health
- People are less likely to visit a service if they feel their needs are not being met

Fear of loss of independence

- Maybe reluctant to get help if they think it will affect their independence eg maybe moved into a residential care

Overcoming Social and Cultural Barriers

Lack of awareness

- ✓ Services can run awareness campaigns or distribute posters and leaflets to educate people

Differing cultural beliefs

- ✓ Services should listen and respect the needs of a person and should try and meet them
- ✓ Making sure there is a range of foods available
- ✓ Offering a choice of service providers
- ✓ Arranging tests and procedures to avoid prayer times
- ✓ Making sure there is a place for a person to pray or worship

Social Stigma

- ✓ Educating people about stigmatised conditions, by leaflets and posters in waiting rooms

Fear of loss of independence

- ✓ Work with the individuals to help them stay as independent as possible
- ✓ Allow them to make their own choices
- ✓ Helping people do things for themselves instead of doing it for them

Language Barriers and Overcoming Them

Language barriers normally affect people that speak English as an additional language (their first language is not English) or people who have a language or speech impairment.

Reasons for Language Barriers

- Doctors using jargon (technical words) when talking to a patient
- People having an accident or being taken ill in another country where they do not speak the language at all
- Patients in English speaking countries understanding and speaking very little English
- Information leaflets only available in one language
- Care providers using slang or phrases specific to their own language
- Speech impairments (eg a stutter) making it difficult for patients to express their needs

Overcoming Language Barriers

- ✓ Explaining complex medical information in simpler terms
- ✓ Using interpreters in both face to face and phone appointments
- ✓ Having longer appointment times to allow time for longer explanations
- ✓ Having information leaflets available in multiple languages
- ✓ Avoid using slang or phrases that others might not understand
- ✓ Training staff to be aware of common speech and language difficulties
- ✓ Having an advocate – a person to help a patient express their needs

Learning Aim B – Skills, Attributes and Values

Values within H&SC



Scan the QR code for the specification document

Skills and Attributes in Health and Social Care

- ✓ Problem Solving
- ✓ Observation
- ✓ Dealing with difficult situations
- ✓ Organisation
- ✓ Empathy
- ✓ Patience
- ✓ Trustworthiness
- ✓ Honesty

Value	Definition
Communication	The exchange of information between two people that helps to provide care and support.
Care	Looking after and providing for the needs of a person.
Compassion	Working with empathy, respect, and dignity.
Competence	Skills and knowledge to understand a person's needs and to deliver effective care, based on research.
Courage	Doing the right thing for the people being cared for and speaking up when concerns arise.
Commitment	A determination to improve the quality of care.

Obstacles that individuals face

- ⚠ Lack of motivation
- ⚠ Self-esteem issues]
- ⚠ Stress
- ⚠ Previous bad experiences
- ⚠ Anxiety
- ⚠ Lack of support
- ⚠ Time constraints
- ⚠ Unachievable targets
- ⚠ Lack of resources
- ⚠ Disability
- ⚠ Health Conditions
- ⚠ Addiction

Benefits of skills, attributes and values.

- 💡 High quality care
- 💡 Person-Centred Care
- 💡 Respect
- 💡 Independence
- 💡 Involvement in care decisions
- 💡 Not discriminated against
- 💡 Protected from harm
- 💡 Able to raise complaints
- 💡 Protected dignity and privacy
- 💡 Rights promoted
- 💡 Confidentiality maintained

Learning Objectives

A – Understand the different types of health and social care services and barriers to accessing them.

B – Understanding the skills, attributes and values required to give care.

Empowerment and Independence

Empowerment is the feeling of being in control of your life and the decisions you make. However, we can lose empowerment when we become poorly or are in vulnerable situations. Some individuals need help with being empowered, because of their age, circumstance or level of confidence - for example:

- Children and young people
- Children and adults with specific health care needs
- Individuals with learning disabilities
- Individuals with physical disabilities
- Older individuals

Individuals who have a health condition will need to make decisions based on their care and treatment, therefore it is important that we give them the choice to choose what they feel is right for them.

When individuals are making decisions they will need the following:

- To have all the information available (advantages and disadvantages) which will enable them to make an informed safe choice

Many individuals will feel they have lost control/independence of certain aspects of their day to day routine, so it is important that we allow individuals to continue with daily tasks independently and safely as possible. This could be though:

- Adapting activities such as fitting a stair lift, or putting handrails in the bathroom
- Providing pieces of equipment such as walking frames, wheelchair or a grabber

Individuals can also be empowered through being provided an advocate. An advocate is someone who can help them put forward their views when they are unable to.

Respect for Others

Respect is considering other people's views and opinions and treating them in a courteous way regardless of how you personally feel.

It is very easy to jump into a conversation to express your own view, yet this may lead to an argument and falling out with family and friends. Respect is about trying to understand someone else's views and opinions and being able to:

- Be tolerant of others
- Accept their views (as we hope they accept ours)
- Accept and keep an open mind about different behaviours and faiths

Respect is also about privacy and we can respect privacy in some of the following ways:

- Gain permission before entering someone's personal space
- Provide a private area to talk about sensitive issues
- Do not leave personal records around for other people to see
- Do not access someone else's phone without permission

Respect is extremely important when it comes to individuals with mental health conditions. It may be hard to understand someone's views/choices when they have a mental health condition, however we must respect them. The attitudes of the care workers can influence if an individual with mental health conditions continues with their treatment plan. Care workers must ensure they:

- Respect the person's views and ideas
- Understand and accept that ideas/views may change quite quickly
- Promote independence
- Involve the individual in all decision making
- Support the individual without imposing your own views

Maintaining Confidentiality

By law, it is a person's right to have their personal information kept confidential (private). Some of a service user's information which health and social care workers must keep confidential is as followed:

- Address and who they live with
- Health issues, test results, planned treatment and allergies
- Religion, beliefs, sexual preferences
- Where they work and their financial details
- It is also important that care workers know exactly how to keep information safe. Some methods could be:
 - Passwords on all computers and electrical devices
 - Locking paper files away in locked cabinets or rooms
 - Don't leave files left unattended for others to see
 - Do not discuss service users in open spaces or to people who do not have the right to know

If care workers 'breach' confidentiality (passing on private information) it could cause a lack of trust for the service user. It may also lead to anxiety and fear of that service and the care workers.

Social media is a platform where private information could be available and health and social care workers must be extremely careful when dealing with their organisations social media. For example:

- A care worker in a residential care home takes a picture of the local primary schools visit and posts it on their facebook page. This now means that all the children who are in that photo have their face on social media. This could be putting some children at risk.

Preserving Dignity

Health and social care workers need to work hard at keeping (preserving) their service users dignity. Dignity is about considering how an individual may feel in a certain sensitive situation, such as:

- Going to the toilet
- Need help showering/taking a bath
- Dressing
- Eating and drinking

If individuals lose their dignity, it results in them feeling embarrassed and ashamed and may if prolonged, cause anxiety, depression or isolation.

Carers can show they care about an individual's dignity by:

- Closing doors/curtains when an individual is washing/dressing or going to the toilet
- Keeping their private areas covered
- Speaking quietly and using appropriate language when discussing sensitive and personal topics
- Ensuring an individual's clothes, hair and face are clean
- Dealing with embarrassing situations, quickly, sensitively and professionally.

Care workers who do not demonstrate dignity may do some of the following which can cause the individual to feel unvalued, disrespected or embarrassed:

- Using children's feeder cups instead of age appropriate equipment that has been adapted
- Not discussing with a person what their care will be
- Telling the individual that they should use a bedpan or incontinence
- Rushing a person

Effective Communication

Communication is a basic need. It is the key to all relationships, for example, with family and friends, in work, at school, socially and formally. Poor ineffective communication between individuals can often lead to problems. You might have heard the phrase a breakdown in communication to describe a relationship that has failed. Building trust and relationships in health and social care is crucial. Trust can easily be lost if the care worker appears not to care all be interested.

Electronic Communications:

These days, it is common for carers to communicate electronically both of service users and with colleagues. It is important to consider tone and impact, especially in short messages.

For example:

- Using capital letter gives a feel of shouting or impatience
- Short statements may appear code and to direct
- Messages might be misunderstood by the reader (communicating electronically does not have the support of body language that verbal communication does)

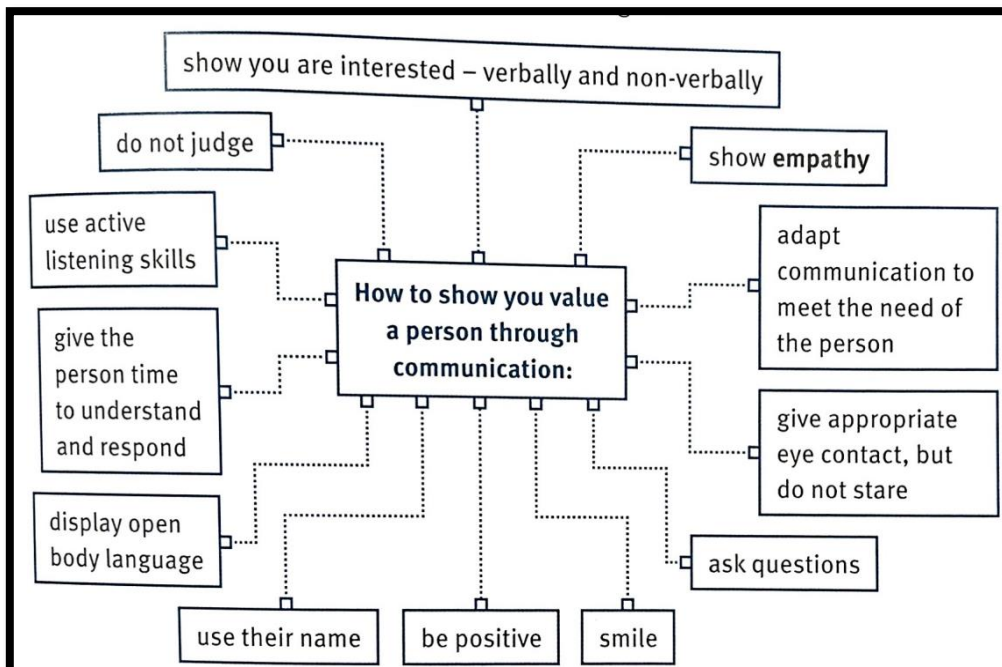
Service Users who may need help with communication:

- English is not their first language
- Visual difficulties including blindness
- Hearing difficulties including deafness
- Problems understanding because they have dementia or brain damage
- May have a combination of the above

Good Communication:

An effective care worker will be able to:

- Adapt their communication style to suit the audience
- Make service users feel respected



Safeguarding and Duty of Care

Safeguarding is about keeping people safe from harm.

- Service users have a right to be safe.
- Care workers have a legal duty to protect service users.
- If a carer understand is a sign of danger and harm they will be able to protect their service users

Types of abuse.

Physical, emotional, sexual, financial, neglect, domestic violence, modern slavery, discriminatory abuse, and cyber bullying.

Safeguarding individuals:

It is important that care workers recognise the signs and symptoms of abuse so they can protect people. Symptoms on their own do not always indicate abuse. Carers need to look at the whole picture. For example, an individual with bruises could've fallen recently. But several unexplained bruises at different stages of healing would make you suspicious. Several signs together would make you strongly suspect abuse.

What Do To:

If you were a care worker and you suspected someone was being bullied or abused, here are some things you would do:

- Report the abuse, the person could be in danger
- Never promised to keep the abuse secret make it clear that you need to tell someone more senior than you
- If you could not talk to someone in the workplace you could tell a responsible adult who could help to contact the inspection team, a team that checks a care service for being properly run

Duty of Care

Care workers must work in ways that never put individuals at any risk of harm. They need to know the responsibilities of the role and only do things that they were trained to do. Their duty of care to safeguard people means that they

- Know their role and responsibilities
- Follow or procedures properly
- Deliver care as individual care plan states
- Always report and record any concerns about an individual, even if it appears minor.



Promoting Anti-Discriminatory Practices

What is Discrimination?

Discrimination means treating a person or group of people unfairly or less well than others. Discrimination may be obvious. However, sometimes it is more subtle or hidden. It is against the law to discriminate. The following are known as protected characteristics. The equality act of 2010 makes it illegal to discriminate based on these points. For example, it would be illegal to discriminate against anyone in a job interview based on their:

- Age
- Disability
- Gender reassignment
- Marriage and civil partnership
- Pregnancy and maternity
- Race
- Religion or belief
- Sex
- Sexual orientation

Why People Discriminate:

When someone discriminates against another person it may be because they have a stereotyped idea of what the person is like. They do not see the person as an individual, they see them as a member of a group based on, for example, their religion, race or gender. They make assumptions about the individual based on what they think they know. For example, they may assume that older people are frail and weak. This is having a prejudiced attitude.

In childhood, we learn from the people around us. If these people have prejudiced attitudes, then we may grow up believing those attitudes are right. Often, we are unaware of our prejudice, but they can make us act in ways that discriminate against other people. We need to think about our attitude and make sure we do not use discriminatory behaviour.

Effects of Discrimination:

The effects of discrimination are devastating for the victim and for others who know them. Discrimination can result in

- Feeling isolated and depressed
- Disempowerment (loss of control over life)
- Physical health problems such as digestive, heart and skin problems
- Low self-esteem and mental anxiety
- Suicide

Anti-Discriminatory Practice:

There are many ways of promoting anti discriminatory practice in health and social care, for example:

- Having patience with others who do not speak English very well
- Communicating in a way that the person will understand
- Showing tolerance towards people who have different beliefs than you
- Respect in the health and care choices that individuals make
- Not getting involved in a discriminatory behaviour is that others show
- Challenging unkind behaviours

Working in anti discriminatory way will demonstrate that you value a person and their differences.

Case Studies

Empowering/ Independence: James has arthritis. His joints are sore and swollen. He used to be a journalist and write a lot. He wants to discuss his meal choices and how to be as independent as possible whilst eating.

Respect: Nathan is about to have his 3rd birthday. His mum wants to invite everyone from his nursery to his party and is preparing invitations. Some of Nathan's friends are Jehovah's Witness but Nathan's mum wants them to be there without being disrespectful to their beliefs.

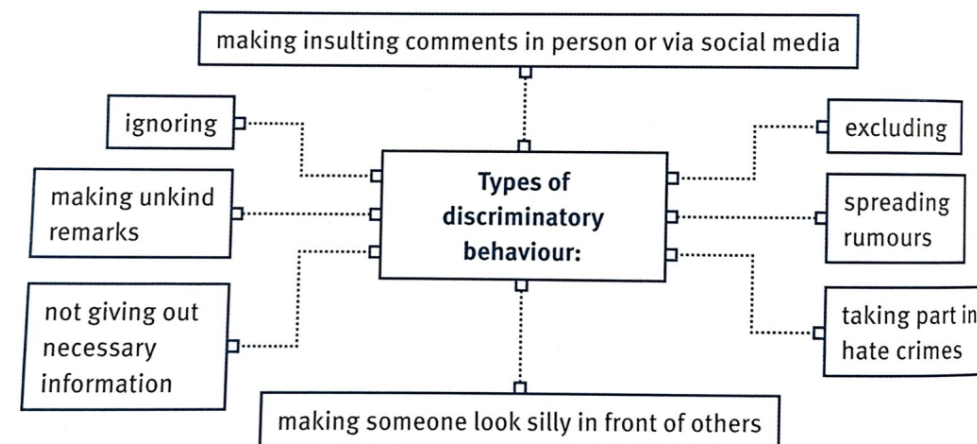
Confidentiality: The medical records of 26 million patients are embroiled in a major security breach amid warnings that the IT system used by thousands of GPs is not secure. The Information Commissioner is investigating concerns that records held by 2,700 practices - one in three of those in England - can be accessed by hundreds of thousands of strangers.

Dignity: Ana is receiving palliative care, she recently had a course of chemotherapy and has lost her hair. She had always been very particular about her appearance. She is nearing the end of life and Justine is helping her with her care in the hospice, Justine wants to maintain her dignity where possible.

Communication: The lack of communication across the NHS is "completely shocking", the Health Secretary said yesterday as he disclosed that 11 people died last year after being given the wrong medication. The NHS needs to improve communication to staff and patients.

Safeguarding/ duty of care: There were 12 chances to save the life of this eight year old girl. Instead, she died of 128 injuries. On 25 February 2000, months of abuse and neglect finally overcome Victoria Climbié and she's declared dead. The torture she's suffered includes starvation, cigarette burns, repeated beatings with bike chains and belt buckles. And hammer blows to her toes. Many will blame the Haringey social worker, for not doing more to prevent the abuse and the social care system that utterly failed to protect an innocent child.

Anti-discriminatory practice: Violet aged 84, had an appointment to have an operation on a bunion on her big toe. However, because of her angina, she was sent for a heart scan. She said: "They found that it was not angina, but a leaky valve. "I asked if I could have this fixed. The attitude from doctors was: 'What are you bothered about, at your age?'.



Box A: Key words and definitions

1. Democratic republic - Country without king or queen. People vote for leaders.
2. Constitution - Set of written rules for the country.
3. President - Leader of United States. Elected every 4 years.
4. Congress - Similar to UK parliament
5. States - Smaller political units which form the United States.
6. Federal power - States had own government.
7. Representatives - Politicians from each state which helped make laws for whole country.
8. Territory - Area with few people. No state government and controlled by Congress.
9. Supreme Court - Highest court in USA
10. Secede - Leave a union.
11. Segregated - Separate for black and white people.

Box D: Removal of Eastern tribes (1830 - 38)

1. The 'Five Civilised Tribes' in south-east tried to adapt and live alongside white Americans.
2. Cherokee used same political structure as USA, set up capital city, used money, had a written language, set up schools and churches.
3. President Jackson persuaded Congress to pass the Indian Removal Act (1830) and set up Indian Territory in Oklahoma.
4. Many tribes were unhappy with this.
5. Government used range of tactics to remove Eastern tribes between 1830 - 1838. This included warfare, treaties, use of concentration camps and forced removal to Indian Territory.
6. 4000 Cherokee died in 'Trail of Tears' forced-march..

Box E: Lives and culture of Plains Indians (natives)

1. Plains were vast and dangerous grassland. White Americans thought they were inhabitable before 1840s. Few resources e.g. water or wood. Extreme temperatures.
2. Sioux tribe divided into 3 groups: Lakota, Dakota and Nakota.
3. Moved permanently from near Minnesota to Plains in 1830s when other natives filled up their homelands to escape white expansion.
4. Lakota were skilled with horses and followed buffalo herds. They, had guns from white traders from 1830.
5. Similarities and differences in the culture of the different tribes. Main features were: nomadic lifestyle, led by powerful warrior, buffalo used for food and homes (tipis), belief in Great Spirit and land could not be bought nor sold.

Box B: Growth of USA (1789 - 1838)

1. USA became independent from Britain in 1783.
2. USA was a democratic republic. Only white, male, property-owning Americans could vote.
3. USA made of smaller states with a governor in charge. Could make own laws but not if they went against Constitution.
4. Each state sent representatives to Congress where they would help make new laws for whole country.
5. The President could suggest laws but Congress had to agree them.
6. 13 states in 1790. Other land lived in by natives or claimed by European powers.
7. There were 26 states by 1838, particularly in the northwest. This was due to expansion of slavery, buying land from France, and fighting with natives then taking their lands.

Box C: Growth of Deep South (1793 - 1838)

1. Cotton was key to wealth. 42% of all exports in the South by 1820. Factories in the North bought and made it into cloth.
2. Many Presidents were from the South and did not stop growth.
3. Eli Whitney invented the cotton gin in 1793. It could separate fibres more quickly and process it 50% faster. More slaves were needed to pick raw material.
4. Slaveholders from the original 13 states opened new plantations in the Deep South with loans from banks who would make a profit from the interest charged.
5. Children of slaves automatically became slaves themselves.
6. Slaves could not vote but it was decided that each was worth 3/5th of a vote in 1787. This gave the white Americans in the South a third more electoral votes in Congress than the North. The interests of slaveholders were maintained until 1861.
7. Many in North felt the South was too powerful. Worried new state joining USA (slave or free) would upset balance of power. A handful of abolitionists believed slavery was morally wrong.
8. Missouri Compromise created in 1820 to solve concerns. Virtual line across middle of country. Any state joining USA below that line could vote whether to be slave or free.

The Making of America 1789 - 1900



Box F: Journey to Oregon and California

1. Large number of whites travelled up to 3000 miles from 1840s. Most travelled over land using wagons to carry belongings. 20 miles per day.
2. Push and pull reasons for moving West: Banking system collapse in 1837, explorers began to map safe routes, California taken from Mexico by USA in 1848, Manifest Destiny, belief in converting natives to Christianity and advertising campaigns.
3. Bought supplies at meeting place then travelled with company (group) across trails and Rocky Mountains. Natives often helped at rivers.

Box G: Mormon settlement of Utah

1. Religious group set up in 1800s. Practiced polygamy (marrying many wives).
2. Brigham Young chose Utah to build Salt Lake City in late 1840s.
3. Planned from beginning with irrigation ditches and Mormon Church decided how much land each family got.
4. Nobody owned water. Modelled on streets of Paris. Temple at centre.

Box H: California Gold Rush (1848)

1. Discovery of gold in California led to a rush of settlers from 1848. Over 50,000 whites headed west to 'strike it rich'.
2. Natives forced from land to set up mining camps.
3. Mining settlements were heavily male dominated, often full of gambling dens and saloons. Robberies and murders more common than in other places. Women worked as prostitutes or did domestic chores e.g. cooking and laundry.
4. A lot of money made but often not through gold-mining. Small-business owners sold shovels, sifting pans, maps and supplies.
5. California applied to become a state in 1849. Declared free (without slavery) in 1850. Threw delicate balance of free / slave states into crisis.
6. San Francisco grew to be a city and busy trading port by 1850.
7. Huge numbers of Chinese went to find riches by 1851.
8. Crushing mills needed to extract gold from rock after 1852.
9. Huge impact on Plains. Miners travelled across natives' hunting ground. Government forced to sign Fort Laramie Treaty. Law brought in which allowed natives to be sold into slave labour.
10. Mining caused environmental destruction in California, clogging rivers with silt and putting harmful chemicals into water supply.
11. Led to demands to connect country up fully with railroad.

Box I: Pike's Peak Gold Rush (1858 - 59)

1. Land occupied by Cheyenne Indians. Over 100, 000 arrived by 1859.
2. Farms established to feed those in mining towns e.g. Denver
3. Settlement in Kansas showed Plains were not deserts and encouraged settlers.
4. Settlement of Kansas broke treaties made between USA and natives in 1850s. They began to fight back. By 1860, war inevitable.

Box P: Reversal of Radical Reconstruction (1870 onwards)

1. Radical reconstruction was not popular in South. Many white business owners in North became rich from building railways or factories in South. Nicknamed carpetbaggers.
2. Freedman's Bureau shut down in 1872.
3. Many black Americans worked on plantations as sharecroppers.
4. 1873: Supreme Court said that voting rights at state level were choice of the state.
5. 1875: Supreme Court said not role of government to stop black Americans being bullied out of voting booths.
6. 1877: Withdrew soldiers stationed in South after war.

Box O: Radical Reconstruction (1866 - 1870)

1. Many Republican politicians were extremely angry at Johnson and forced through own changes.
2. Freedman's Bureau re-established in February 1866.
3. Congress brought in Civil Rights Bill in March 1866 to protect rights of all black Americans.
4. Congress proposed the 14th Amendment in April 1866, which said anyone born in USA was a citizen regardless of skin colour. Became law in July 1868.
5. Ex-Confederate governments were taken over by North between March and July 1867. People who fought against the Union were banned from voting. Military sent to South to protect rights of black Americans.
6. 15th Amendment passed in March 1870, giving all black Americans the right to vote. More than 2000 black Americans were voted into political office by November 1870;

Box J: Causes of Civil War

1. People in South saw cities and industry of North as too modern and ungodly.
2. By 1850, population of North was growing rapidly and gaining more political power.
3. 1850 Compromise (law stating free states had to return escaped slaves to their owner) gave power back to slaveholders in South. In return, California became a free state. Many arguments over whether slavery should be allowed as USA grew.
4. Kansas-Nebraska Act (1854) overrode Missouri Compromise and allowed states to decide if wanting to be free or slave.
5. In 1857, Supreme Court said slaves had no rights and government could not ban slavery in territories.
6. Republican Party created in 1854. Anti-slavery. Worried slaveholders in South.

Box K: Trigger of Civil War

1. Abraham Lincoln elected President in 1860. Lots of support in North but almost none in South.
2. South Carolina voted to secede in November 1860 as a protest for him becoming President.
3. By 1861, six other states also seceded and formed the Confederacy. Elected own President, Jefferson Davis.
4. Lincoln said the Confederacy and its President was illegal in April 1861. Davis ordered his gunboats to attack a Union fort, Fort Sumter in South Carolina.
5. Lincoln declared war in April 1861. Four more states joined Confederacy by June 1861.

Box L: Civil War (1861 - 1865)

1. Fought between North and South.
2. North called themselves Union.
3. South called themselves Confederacy.
4. 750, 000 people died.

Box M: Experience of Black people during Civil War

1. In North: Lived in poorer areas with higher rents, segregated education, could get jobs but not in charge of whites, of equal pay or professional e.g. doctor, lawyer etc.
2. In South: Most were slaves. If not, could not get jobs. Lived in plantation houses. Disease spread easily. Illegal to learn reading and writing.
3. 1861 - 62: Union refused to end slavery throughout whole of USA but South Carolina was a free state. Ex-slaves began setting up regiments. A lot of opposition to these and they often did hard labour for Union army. Volunteers taught ex-slaves how to read and write.
4. 1863 - 65: Lincoln declared the Emancipation Declaration on 1st January 1863. Freed all slaves across USA upon Union winning war. Thousands of ex-slave men joined the Union army and often did worse jobs. Ex-slave women supported as nurses / cooks. Most black workers in North did not volunteer.
5. Race riots happened across Northern cities where whites were forced to join the army and blamed black people for this..

Box N: Reconstruction (1865 - 66)

1. Lincoln persuaded Congress to make Emancipation Proclamation the 13th Amendment in January 1865.
2. Set up Freedman's Bureau, which gave land confiscated from plantation owners to ex-slaves.
3. Lincoln shot dead in April 1865 and replaced by Andrew Johnson.
4. Johnson believed his most important job was to bring country back together. Forgave thousands of Confederate soldiers. Returned land to plantation owners. South allowed to re-establish own state governments and bring in Black Codes. Stopped work of Freedman's Bureau. Did little to stop Ku Klux Klan.

The Making of America 1789 - 1900



Box A: Homesteaders

People became homesteaders because:

1. Homestead Act offered 160 acres of free land is inhabited for 5 years.
2. Railroad companies advertised Plains as great place to farm. Unusually high amount of rain in 1860s. New technology made e
3. Ex Slaves could but land to farm and escape the South
4. Railroads allowed people to sell farmed goods to the cities more easily which helped homesteaders to make a profit.

Homesteaders faced problems like:

1. Families often lived miles from nearest town. Lonely and isolated.
2. Few trees.
3. Getting supplies was extremely difficult. People had to improvise.
4. Lack of clean water meant cholera and typhoid was common.
5. Harsh climate; strong winds, freezing in winter and hot in summer.
6. They could not fence the land due to lack of wood.
7. The soil was too hard and broke their traditional tools

To solve these problems they:

1. Would build their homes out of Saud instead of wood as it was cheap and quick
2. Use wind pumps to get water from underground. To do this they would drill into the ground and use the power of the winds to pump the water up from Deep below.
3. Use dry farming methods to capture what little rain fell by turning the soil to prevent evaporation
4. Use new types of crops which could survive the plains, like turkey red wheat.
5. Use the new invention of barbed wire which was developed in 1874 this was cheaper and easier than using wood
6. Women were very resourceful making what they could from what they had such as soap from fat and fixing and mending clothes.
7. They used buffalo dung, or chips, as fuel for their ovens and fires
8. When more people move to the Plains they would work together

Box C: Growth of Big business (1877 - 1900)

1. Big business created opportunities and hardship.
2. Cotton: Picked by poorly paid sharecroppers. Changing it into cloth created jobs but low paid.
3. Tobacco: 90% controlled by one company. No reason to improve wages.
4. Bonanza Farms: People could work there to save for own land. Best land, water and railroad access own by these big companies. Small-scale often could not compete against them.
5. Trade unions had little power in mineral industry. Black and Mexican workers used to undermine striking. Black-listing normal.

Box B: Changing lives of Plains Indians (1877 - 1900)

1. After 1877, government policy towards natives became harsher.
2. Natives forced onto reservations after Great Sioux War. Supplies, medical aid and rations were low.
3. Growth of railroad brought many hunters to the Plains. They killed 3 million buffalo by 1883. Government did little to stop them.
4. Homesteaders, ranches and big businesses on Plains pushed many tribes to starvation. Again, government did little to stop this.
5. Government destroyed culture. Tribes sent to different reservations. Lived in houses not tipis. Forced conversion to Christianity. Forced education, often in boarding schools away from family. Children forced to choose English names and beaten if they did not speak English. Dawes Act in 1887 gave natives 160 acres of land and citizenship if they gave up tribal lands.
6. Ghost dance was last major attempt at resistance. Religious movement of 1890s. Believed white settlers would be swept off land and buffalo would return if they danced / prayed. Banned by government. Army killed over 250 believers at Wounded Knee.

Box E Changing Lives of African Americans 1877 - 1900

1. Black Americans continue to live in poverty after the end of the reconstruction
2. the cotton industry collapsed after the Civil War because it costs too much
3. black Americans were prevented from getting better paid jobs
4. black Americans in the south was sharecroppers
5. some black Americans became homesteaders, encourage by Benjamin Singleton
6. by 1879 over 6000 black Americans had moved to Kansas these people became known as the exodusters
7. there is racism in northern cities
8. in 1882 Booker T Washington set up schools to train black children to be Farmers and crafts people
9. in 1900 Washington established the Negro business League to support black businesses
10. in 1900 there were 23866 black teachers, and 417 black doctors
11. in the south Jim Crow laws kept living conditions difficult for Blacks
12. Jim Crow laws separated trains theatres churches parks and schools
13. there was an increasing number of black authors with over 100 books and 206 journals published by black authors between 1865 and 1893
14. there was violence against black Americans due to the Ku Klux Klan who reformed secretly in the 1890s
15. there were Redeemer governments who were around by ex slaveholders they tried to undo the changes made by the Civil War
16. Redeemer governments put in place and possible literacy tests which prevented black Americans from voting
17. in 1905 in Louisiana only 1342 black Americans were registered to vote
18. black Americans were lynched in 1892 161 black Americans were lynched

Box D: Cities and Mass Migration (1877 - 1900)

1. Cities attracted people, especially in West, as they controlled local water supplies and promised work, education and entertainment..
2. Often overcrowded, e.g. 32 families sharing 8 storey building, which led to disease. In Chicago, 60% died before 1 year old.
3. Driving force in US women getting vote in 1920s.
4. Steam ships made travel faster. 600,000 immigrants came from Italy alone in 1890s. Jews and other minority groups left persecution. Needed to pass language test and medical check.
5. Immigrants often met racism and hostility. Violence was common. Low wages. Lived in poorest areas of cities.

The Making of America 1789 - 1900

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Box F Railroads

1. The new transcontinental railroad United the east and the West of America for the first time
2. in 1862 Abraham Lincoln had approved the Pacific railroad act which meant the government gave money to help building the Railroad
3. the line was completed in 1869 at The Golden spike ceremony in Utah
4. the Railroad have both positive and negative impacts on the USA
5. people who invested in the Railroad had become very wealthy from it
6. the native Americans were negatively impacted because it disrupted the buffalo. people who use the Railroad could also buy a special ticket which meant they could go out on the special buffalo Hunt which again destroy the native Americans source of life. it also meant that more people came to Settle on native land.
7. the people who worked building the Railroad had a terrible time there are over 12000 Chinese immigrants who were building the railways. the Railroad builders were paid very little and it was a very dangerous job
8. the Railroad did help America to grow as it created new railroad lines along which towns were built. however some of these towns were very drunken and unruly such as Dodge City.
9. overtime the Railroad help to improve Law and Order across America

Box G Cattle Industry

1. The cattle industry grew thanks to the railroads.
2. the cattle industry started in Texas here cowboys reared the Texas longhorn cattle
3. a few times a year the cattle would be driven which actually means walked to the northern towns where they would be sold. Here the cowboys got a bigger profit.
4. after the American Civil War in 1865 soldiers found that their cattle herds had grown massively whilst they had been away fighting
5. in 1866 Charles goodnight and Oliver Loving made \$24,000 by selling 2000 cattle to Indians on reservations at Fort Sumner. They had set up a new cattle Trail
6. these trails weren't called The Long drives. remember they did not involve cars.
7. these drives cause conflict with the native Americans because the cowboys went through Native American land.
8. when the Railroad was built Joseph McCoy decided to set up a cow town at the point of a railroad in Kansas, this town was called Abilene and was built in 1867
9. Abilene was a place for the Cowboys to take their cattle and then it could be sold to cities in the east using the Railroad.
10. Abilene was a drunken place as cowboys who went their off and just went and spent all their money on alcohol prostitution and gambling
11. John iliff was a famous cattle rancher who started to ranch on the Plains of America using the open range
12. the open range means that the cattle were free to roam
13. however the cattle needed a lot of grass and water.
14. droughts men that eventually the cattle industry couldn't support itself and it collapsed

Box H: Indian Wars

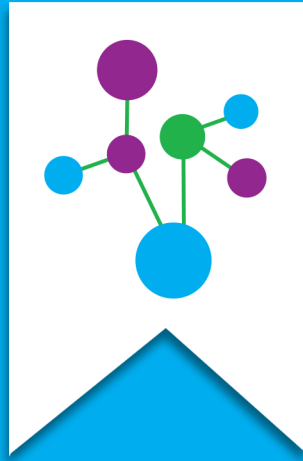
There was growing tensions between the Whites and the Natives because

1. Growing tension between natives and whites due to impact of gold rushes, railroads, homesteaders and cattle ranches.
2. Government began policy of moving natives to reservations (set aside areas of land) so they would not interfere with white settlement.
3. The transcontinental Railroad disrupted Indian hunting grounds.
4. Gold being discovered at Pikes Peak lead to conflict over land and Resources,
5. Natives like the Sioux refused to stay on their reservations

The Wars

1. Little Crows War - This was caused by little crow who have to sign a reservation agreement in 1861 in return for supplies from the US government. The government was not helping them and refused to open up the emergency stores when the Indians were starving in 1862. This led to little crow and his Warriors attacking white farmers because they were desperate for food they killed 500 white settlers. Little Crows people were then attacked by local soldiers, little crow was killed. The survivors were severely punished with 38 being publicly hanged. This made the natives very angry. The remaining Sue were forced to move to a reservation in Dakota
2. Red Cloud's War - In 1851 the Sioux had signed a treaty with the US government who promise to respect Sioux and this was called The Fort Laramie Treaty. in 1862 gold was discovered on the Sioux reservation and miners began pouring in they created a new trail called the bozeman trail which went right through the Sioux Lands. Red Cloud of the lakota Sioux led attacks against some of the miners in response the US Army set up Forts on Sioux Land. Between 1866 and 1868 red cloud and his Warriors for the US Army eventually the government had to admit defeat. The consequences of this more were a new Fort Laramie treaty which was signed in 1868 it gave the soon more land but they have to promise that they would not attack the Settlers, it also gave them the Black Hills which was sacred land. The government were humiliated.
3. The Great Sioux Wars - Gold was discovered in the Black Hills of Dakota in 1874, this was the land that had been promised to red cloud in the 1868 fort Laramie Treaty. the government tried to buy the black hills but the Sioux refused as the Black Hills were sacred to them. the US government and frustrated and ordered the Sioux back onto their reservations, however Sitting Bull a powerful chief and his people did not return. on the 25th of June 1876 General Custer found sitting Bulls camp on the Bighorn river. Custer and his 210 cavalry man attacked with 6000 natives. It took just minutes for Custer and his soldiers to be defeated. The natives scalped and mutilated the bodies of the Fallen soldiers. Whilst the natives won this battle they were treated very harshly afterwards they were rounded up by the US Army and rations were stopped on reservations, Sitting Bull fled to Canada, eventually the sewer forced to sell their Lands and move onto even smaller reservations

PLYMPTON ACADEMY



TERM ONE & TWO

HANDBOOK

YEAR 11