

# Knowledge Bank



**Spring Term 2026**  
**Year 11**



**Name:** \_\_\_\_\_ **Form:** \_\_\_\_\_

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## How to use your Knowledge Organiser for Home Learning

- Knowledge Banks contain core knowledge that you must know
- It will help you retrieve what you learn in lessons so that you remember it in the long term
- You will use your Knowledge Bank to aid your home learning

### For homework:

- You will need to create a home learning timetable so you can organise which subject you do on which days
- You will be asked to use a specific section of your Knowledge Bank to aid home learning
- Your home learning will involve retrieval (prior learning) and flipped learning (research-based task for topics not yet learnt)
- The length of home learning will be different depending on your subject, this information is in a different document
- You must write the subject and date in your homework book - if using
- You need to underline the subject and title as per lessons
- There will be rewards for excellent work and sanctions for work not complete
- your home learning will be set every Monday on ClassCharts
- Your homework will be set **every Monday** on Class Charts
- Completing your home learning is **YOUR** responsibility



**5 Mins**  
4 marks AO1

**Choose four things that are true... ?**

- Read key words in the question & the extract very carefully
- ④ Read range of non-fiction texts for understanding
- ④ Practise finding true or false facts on different aspects of the text



**10 Mins**

8 Marks AO1 **Write a SUMMARY on the similarities/ differences between..?**

- List four points relating to the prompt from Source A. List four points from Source B
- Select words and phrases (judicious quotes) that are the **evidence** for your points
- Make **inferences** about what each point suggests is the similarity or difference
- Write up in paragraphs
- Make sure you refer to parts of the text that relate to the prompt.
  - ④ Practise summarising an extract
  - ④ Practise summarising two extracts finding points of comparison and contrast
  - ④ Practise making inferences from textual info
  - ④ Learn the language of comparison & contrast
  - ④ Learn the language of inference and analysis



**20 Mins**

16 Marks AO3 **Compare how the two writers CONVEY their FEELINGS/ ATTITUDES/VIEWPOINT of ... ?**

- Step back and look at the **whole text**. Focus on the **overall tone and attitude** that is being communicated through the text. Identify this by looking at:
  - Content** - what is mainly written about? What dominates the extract? This will be the most important focus.
  - Organisation** – Look at each paragraph. What is the order of the information? How do the texts differ?
  - Lexical field** – what types of words are repeated throughout? This will give a clue to the tone and attitude?
  - Look for evidence of a **clear and distinctive voice** – is it dramatic? ironic? sarcastic? matter of fact? emotive? How does this differ in each? How does it fit the content or topic?
  - Boil the text down to the **single quote** you think encapsulates the view and attitude. This could be the basis of a detailed analysis section.
  - Techniques** – identify how the writer uses language, especially in the source not used for Q3
  - Evidence** – select words and phrases (judicious quotes) and embed them within your sentences
  - Analysis** – examine the reason for the writer's choices and the impact in detail
  - Make sure you list things only relating to the task prompt
    - ④ Practise analysis of words and phrases
    - ④ Practise identifying attitude and tone in texts.



**15 Mins**

12 Marks AO2

**How is LANGUAGE used to ... ?**

- Techniques** – identify how the writer uses language
- Evidence** – select words and phrases (judicious quotes) and embed them within your sentences
- Analysis** – examine the reason for the writer's choices & impact in detail.
- Make sure you refer to language that relates to the task prompt
  - ④ Revise language techniques thoroughly. Make flashcards and test yourself
  - ④ Revise word classes, correctly identify verbs, nouns, adjectives, adverbs
  - ④ Practise analysis of words and phrases

AO1 – Identify and Interpret information and ideas

AO2 - Explain, comment, analyse how writers use language and structure to achieve effects and influence readers

AO3 – Compare writers' ideas and perspectives across two or more texts

**EXAM PROOF** your answer: use the language of the AOs



## 45 Mins

24 Marks AO5 16 Marks AO6

Techniques to use in opinion and persuasive writing:

Anecdotes

Personal pronouns

Imperatives

Negatives

Emotive language

Facts

Opinions

Rhetorical question

Repetition

Expert evidence

Statistics

Tripling (rule of 3)

I **Imagery** – use of metaphor, personification and simile

I **Imperatives** – for confident, commanding language. *Act today, Don't give in*

I **Insecure, tentative language** 'arguably,' 'possibly' 'suggests' 'could'

### WRITING TO PRESENT A VIEWPOINT:

Homework has no value. Some students get it done for them; some don't do it at all. Students should be relaxing in their free time.'

Write **an article** for a **broadsheet newspaper** in which you explain your point of view on this statement.

How to write to present a viewpoint:

The task may be either a letter, article, text for a leaflet, text of a speech, essay

For a **LETTER** you must/should:

Make it clear you are sending to someone  
 Use these conventions of the letter form

For an **ARTICLE** you must/should:

Use a title  
 Introductory paragraph  
 Use sub-headings

For a **LEAFLET** you must/should:

Use a title  
 Use sections, paragraphs, subheadings, boxes

For a **SPEECH** you must/should:

Clearly demonstrate you are addressing an audience  
 Use rhetorical features of formal speech  
 Close or conclude your speech

For an **ESSAY** you must/should:

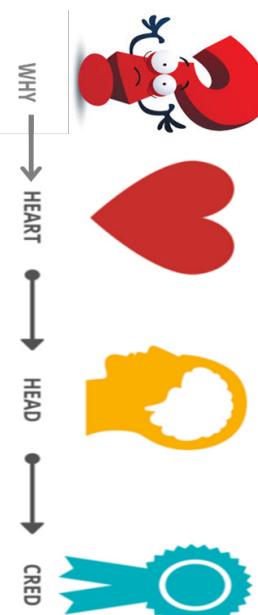
Include an introduction and conclusion  
 Write in a formal style

- ® Read examples of opinion pieces in magazines, online and newspapers.
- ® Look at the tone and style. Practise copying humorous, ironic, emotive, matter-of-fact styles. Don't rant – be controlled.
- ® Practise writing viewpoint pieces for a range of issues – the environment, school, health, consumerism etc.
- ® Practise adding imaginative detail, such as an interview or quotes from an expert.

AO5 – Communicate clearly, effectively and imaginatively

AO6 – Range of vocabulary, sentence structures & accurate SPaG

- **Telos** – ('tell us') why the orator is speaking
- **Pathos** - (sympathy/ empathy) emotion
- **Logos** – Logic and facts
- **Ethos** - (Ethical) credibility - speaker knows what they're talking about



## Homework Sheets Submission Dates

Due Date	16th Jan	23rd Jan	30th Jan	6th Feb	13th Feb	27th Feb	6th Mar	13th Mar	27th Mar	3rd Apr	24th Apr
Complete	<input type="checkbox"/>										

## Useful Links (please use the ones recommended by your teacher)

Sparx Maths	<a href="https://sparxmaths.com/">https://sparxmaths.com/</a>
Maths Genie	<a href="#">Maths Genie • Learn GCSE Maths for Free</a>
Just maths	<a href="#">JustMaths - Maths Tutorials, Resources and Support</a>
Corbett Maths	<a href="#">GCSE Maths Revision Resources - Corbettmaths</a>
First Class Maths	<a href="#">1st Class Maths - Free online GCSE Maths Revision</a>
On Maths	<a href="#">onmaths   Maths revision and support</a>
Hannah Kettle Maths	<a href="#">Hannah Kettle Maths</a>

## GCSE Dates

1MA1 1F	Paper 1 (Non-Calculator) Foundation Tier	Thursday 14 May	Morning	1h 30m
1MA1 1H	Paper 1 (Non-Calculator) Higher Tier	Thursday 14 May	Morning	1h 30m
1MA1 2F	Paper 2 (Calculator) Foundation Tier	Wednesday 03 June	Morning	1h 30m
1MA1 2H	Paper 2 (Calculator) Higher Tier	Wednesday 03 June	Morning	1h 30m
1MA1 3F	Paper 3 (Calculator) Foundation Tier	Wednesday 10 June	Morning	1h 30m
1MA1 3H	Paper 3 (Calculator) Higher Tier	Wednesday 10 June	Morning	1h 30m

## PPE Dates:

Monday 3<sup>rd</sup> March-  
Wednesday 12<sup>th</sup> March 2026

## Foundation Tier Formulae Sheet

### Perimeter, area and volume

Where  $a$  and  $b$  are the lengths of the parallel sides and  $h$  is their perpendicular separation:

$$\text{Area of a trapezium} = \frac{1}{2} (a + b) h$$

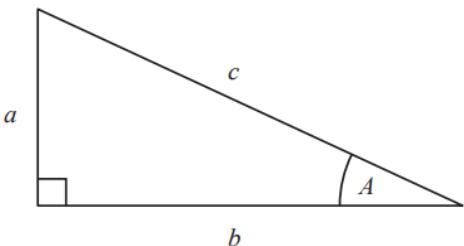
Volume of a prism = area of cross section  $\times$  length

Where  $r$  is the radius and  $d$  is the diameter:

$$\text{Circumference of a circle} = 2\pi r = \pi d$$

$$\text{Area of a circle} = \pi r^2$$

### Pythagoras' Theorem and Trigonometry



In any right-angled triangle where  $a$ ,  $b$  and  $c$  are the length of the sides and  $c$  is the hypotenuse:

$$a^2 + b^2 = c^2$$

In any right-angled triangle  $ABC$  where  $a$ ,  $b$  and  $c$  are the length of the sides and  $c$  is the hypotenuse:

$$\sin A = \frac{a}{c} \quad \cos A = \frac{b}{c} \quad \tan A = \frac{a}{b}$$

### Compound Interest

Where  $P$  is the principal amount,  $r$  is the interest rate over a given period and  $n$  is number of times that the interest is compounded:

$$\text{Total accrued} = P \left(1 + \frac{r}{100}\right)^n$$

### Probability

Where  $P(A)$  is the probability of outcome  $A$  and  $P(B)$  is the probability of outcome  $B$ :

$$P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$$

## Higher Tier Formulae Sheet

### Perimeter, area and volume

Where  $a$  and  $b$  are the lengths of the parallel sides and  $h$  is their perpendicular separation:

$$\text{Area of a trapezium} = \frac{1}{2} (a + b) h$$

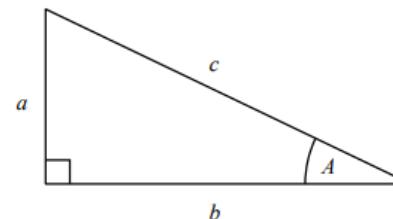
Volume of a prism = area of cross section  $\times$  length

Where  $r$  is the radius and  $d$  is the diameter:

$$\text{Circumference of a circle} = 2\pi r = \pi d$$

$$\text{Area of a circle} = \pi r^2$$

### Pythagoras' Theorem and Trigonometry



### Quadratic formula

The solution of  $ax^2 + bx + c = 0$   
where  $a \neq 0$

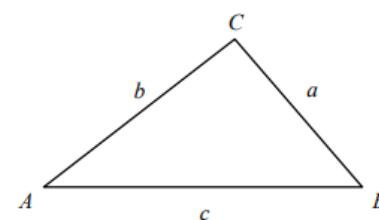
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

In any right-angled triangle where  $a$ ,  $b$  and  $c$  are the length of the sides and  $c$  is the hypotenuse:

$$a^2 + b^2 = c^2$$

In any right-angled triangle  $ABC$  where  $a$ ,  $b$  and  $c$  are the length of the sides and  $c$  is the hypotenuse:

$$\sin A = \frac{a}{c} \quad \cos A = \frac{b}{c} \quad \tan A = \frac{a}{b}$$



In any triangle  $ABC$  where  $a$ ,  $b$  and  $c$  are the length of the sides:

$$\text{sine rule: } \frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$\text{cosine rule: } a^2 = b^2 + c^2 - 2bc \cos A$$

$$\text{Area of triangle} = \frac{1}{2} a b \sin C$$

### Compound Interest

Where  $P$  is the principal amount,  $r$  is the interest rate over a given period and  $n$  is number of times that the interest is compounded:

$$\text{Total accrued} = P \left(1 + \frac{r}{100}\right)^n$$

### Probability

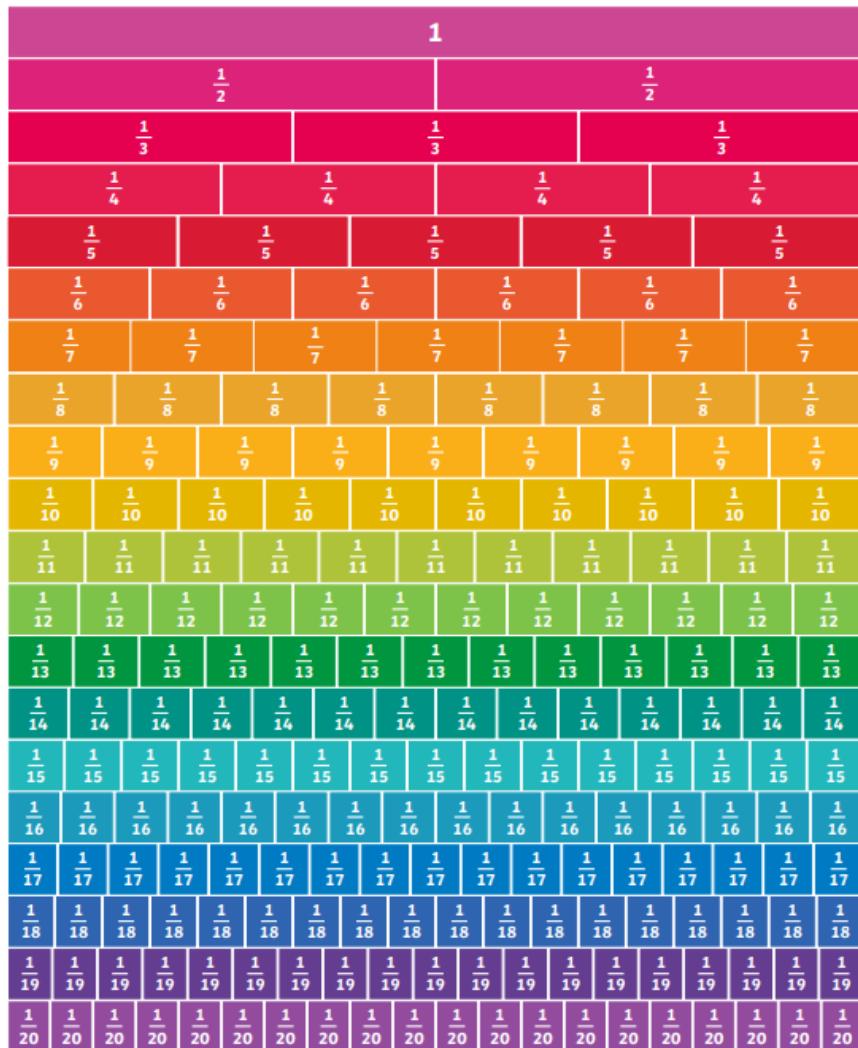
Where  $P(A)$  is the probability of outcome  $A$  and  $P(B)$  is the probability of outcome  $B$ :

$$P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$$

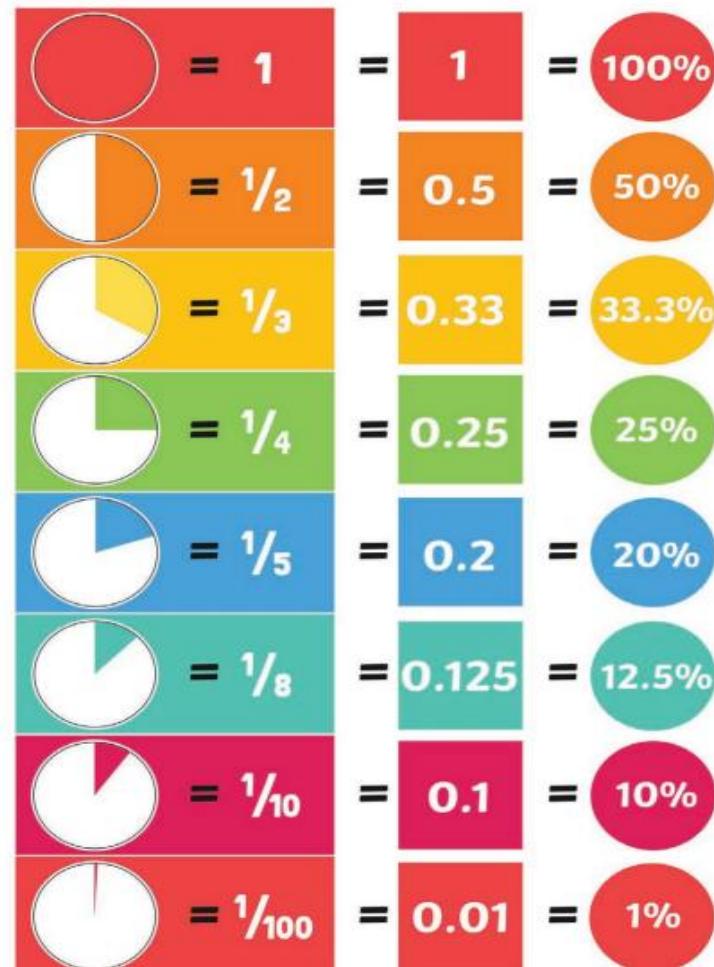
$$P(A \text{ and } B) = P(A \text{ given } B) P(B)$$

<b><u>Command Word</u></b>	<b><u>What It Means</u></b>
Explain	Show how you got your answer with a sentence or calculation.
Draw / Sketch	Draw accurately (or sketch without scale if asked).
Simplify / Simplify fully	Reduce the expression to its simplest form.
Show	Provide all working or complete a diagram.
Find / Work out	Do calculations to reach the answer.
Factorise / Factorise fully	Take out common factors using brackets.
Express	Rewrite in a different form.
Expand / Expand and simplify	Remove brackets and combine like terms.
Change	Convert units or use a conversion graph.
Give a reason / Justify	Provide clear, accurate reasons with correct terminology.
Calculate	Use a calculator and show working.
Solve / Solve algebraically	Find the solution, showing algebraic steps.
Prove / Prove algebraically	Use logical steps and algebra to demonstrate a result.
Describe	State the features of a situation.
Complete	Fill in missing values.
Write down / Write	Give the answer (working may or may not be needed).

# Fractions Wall



# Fractions, Decimals and Percentages



## Multiplication Tables

Table 1

$1 \times 0 = 0$
$1 \times 1 = 1$
$1 \times 2 = 2$
$1 \times 3 = 3$
$1 \times 4 = 4$
$1 \times 5 = 5$
$1 \times 6 = 6$
$1 \times 7 = 7$
$1 \times 8 = 8$
$1 \times 9 = 9$
$1 \times 10 = 10$
$1 \times 11 = 11$
$1 \times 12 = 12$

Table 2

$2 \times 0 = 0$
$2 \times 1 = 2$
$2 \times 2 = 4$
$2 \times 3 = 6$
$2 \times 4 = 8$
$2 \times 5 = 10$
$2 \times 6 = 12$
$2 \times 7 = 14$
$2 \times 8 = 16$
$2 \times 9 = 18$
$2 \times 10 = 20$
$2 \times 11 = 22$
$2 \times 12 = 24$

Table 3

$3 \times 0 = 0$
$3 \times 1 = 3$
$3 \times 2 = 6$
$3 \times 3 = 9$
$3 \times 4 = 12$
$3 \times 5 = 15$
$3 \times 6 = 18$
$3 \times 7 = 21$
$3 \times 8 = 24$
$3 \times 9 = 27$
$3 \times 10 = 30$
$3 \times 11 = 33$
$3 \times 12 = 36$

Table 4

$4 \times 0 = 0$
$4 \times 1 = 4$
$4 \times 2 = 8$
$4 \times 3 = 12$
$4 \times 4 = 16$
$4 \times 5 = 20$
$4 \times 6 = 24$
$4 \times 7 = 28$
$4 \times 8 = 32$
$4 \times 9 = 36$
$4 \times 10 = 40$
$4 \times 11 = 44$
$4 \times 12 = 48$

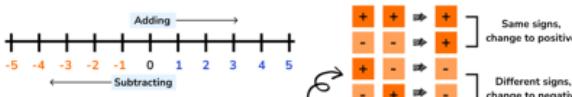


### Adding and Subtracting Negative Numbers

Adding and subtracting negative numbers makes use of the number line:

If you are adding, move to the right of the number line.

If you are subtracting, move to the left of the number line.



When you have two signs next to each other:

If the signs are the same, replace them with a positive sign.

If the signs are different, replace them with a negative sign.

Table 5

$5 \times 0 = 0$
$5 \times 1 = 5$
$5 \times 2 = 10$
$5 \times 3 = 15$
$5 \times 4 = 20$
$5 \times 5 = 25$
$5 \times 6 = 30$
$5 \times 7 = 35$
$5 \times 8 = 40$
$5 \times 9 = 45$
$5 \times 10 = 50$
$5 \times 11 = 55$
$5 \times 12 = 60$

Table 6

$6 \times 0 = 0$
$6 \times 1 = 6$
$6 \times 2 = 12$
$6 \times 3 = 18$
$6 \times 4 = 24$
$6 \times 5 = 30$
$6 \times 6 = 36$
$6 \times 7 = 42$
$6 \times 8 = 48$
$6 \times 9 = 54$
$6 \times 10 = 60$
$6 \times 11 = 66$
$6 \times 12 = 72$

Table 7

$7 \times 0 = 0$
$7 \times 1 = 7$
$7 \times 2 = 14$
$7 \times 3 = 21$
$7 \times 4 = 28$
$7 \times 5 = 35$
$7 \times 6 = 42$
$7 \times 7 = 49$
$7 \times 8 = 56$
$7 \times 9 = 63$
$7 \times 10 = 70$
$7 \times 11 = 77$
$7 \times 12 = 84$

Table 8

$8 \times 0 = 0$
$8 \times 1 = 8$
$8 \times 2 = 16$
$8 \times 3 = 24$
$8 \times 4 = 32$
$8 \times 5 = 40$
$8 \times 6 = 48$
$8 \times 7 = 56$
$8 \times 8 = 64$
$8 \times 9 = 72$
$8 \times 10 = 80$
$8 \times 11 = 88$
$8 \times 12 = 96$

Table 9

$9 \times 0 = 0$
$9 \times 1 = 9$
$9 \times 2 = 18$
$9 \times 3 = 27$
$9 \times 4 = 36$
$9 \times 5 = 45$
$9 \times 6 = 54$
$9 \times 7 = 63$
$9 \times 8 = 72$
$9 \times 9 = 81$
$9 \times 10 = 90$
$9 \times 11 = 99$
$9 \times 12 = 108$

Table 10

$10 \times 0 = 0$
$10 \times 1 = 10$
$10 \times 2 = 20$
$10 \times 3 = 30$
$10 \times 4 = 40$
$10 \times 5 = 50$
$10 \times 6 = 60$
$10 \times 7 = 70$
$10 \times 8 = 80$
$10 \times 9 = 90$
$10 \times 10 = 100$
$10 \times 11 = 110$
$10 \times 12 = 120$

Table 11

$11 \times 0 = 0$
$11 \times 1 = 11$
$11 \times 2 = 22$
$11 \times 3 = 33$
$11 \times 4 = 44$
$11 \times 5 = 55$
$11 \times 6 = 66$
$11 \times 7 = 77$
$11 \times 8 = 88$
$11 \times 9 = 99$
$11 \times 10 = 110$
$11 \times 11 = 121$
$11 \times 12 = 132$

Table 12

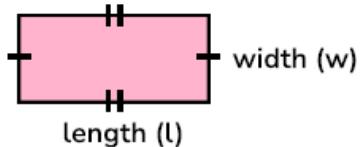
$12 \times 0 = 0$
$12 \times 1 = 12$
$12 \times 2 = 24$
$12 \times 3 = 36$
$12 \times 4 = 48$
$12 \times 5 = 60$
$12 \times 6 = 72$
$12 \times 7 = 84$
$12 \times 8 = 96$
$12 \times 9 = 108$
$12 \times 10 = 120$
$12 \times 11 = 132$
$12 \times 12 = 144$

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	• tenths	hundredths	thousandths	ten thousandths	hundred thousandths	millionths
M	HTh	TTh	Th	H	T	O	• t	h	th	tth	hth	m
							•					
								•				
									•			

## Area

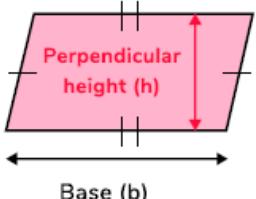
### Rectangle

Area = length x width

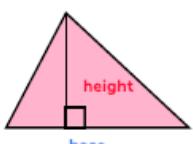


### Parallelogram

Area = base x perpendicular height

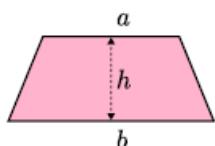


### Triangle



Area =  $\frac{1}{2} \times \text{base} \times \text{height}$

### Trapezium



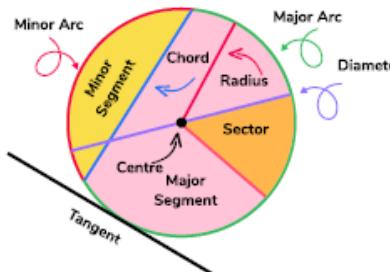
Area =  $\frac{1}{2} (a + b)h$

## Circles

$r$  = radius,  $d$  = diameter

Area =  $\pi r^2$

Circumference =  $\pi d$  or  $2\pi r$



## Percentage Change

Percentage change =  $\left( \frac{\text{Difference}}{\text{Original}} \right) \times 100$

## Straight Lines

Gradient  
 $m = \frac{y_2 - y_1}{x_2 - x_1}$

Equation of a Line  
 $y = mx + c$

$m$  = Gradient,  $c$  =  $y$  intercept

Midpoint 2 points  $(x_1, y_1)$  and  $(x_2, y_2)$

$(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2})$

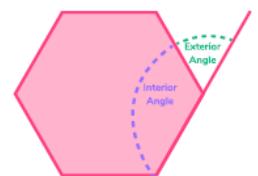
## Angles in a Polygon

Exterior angle =  $\frac{360}{n}$

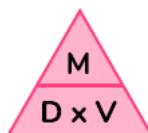
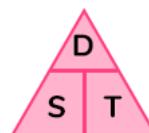
$n$  = number of sides

Interior angle + Exterior angle =  $180^\circ$

Sum of interior angles =  $(n - 2) \times 180$



## Compound Measures



Distance = Speed x Time

Speed = Distance ÷ Time

Time = Distance ÷ Speed

Mass = Density x Volume

Density = Mass ÷ Volume

Volume = Mass ÷ Density

Force = Pressure x Area

Pressure = Force ÷ Area

Area = Force ÷ Pressure

## Volume

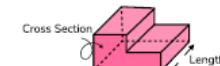
### Cuboid

Volume = length x width x height

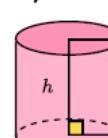


### Prism

Volume = area of cross section x length



### Cylinder



$r$  = radius,  $h$  = height

Volume =  $\pi r^2 h$

# Knowledge Organiser 13 : Producing Robust Programs

## 1. Input Validation

Validation	Does not ensure that the data entered is correct, just that it is possible and sensible
Type Check	The input is in the correct data type. E.g. Integer, Real, String
Range Check	The input is within a correct range. E.g. Between 1 and 2
Presence Check	Some data has been entered. E.g. Reject blank inputs
Format Check	The input is in the correct format. E.g. dd/mm/yyyy
Length Check	The input has the correct number of characters. E.g. 8 or more chars
Why use input validation?	<ul style="list-style-type: none"> <li>The program is more robust</li> <li>The program is more user friendly</li> <li>To prevent further errors occurring later in the algorithm</li> </ul>

## 2. Anticipating Misuse

Division by Zero	In mathematics, there is no number which when multiplied by zero returns a non-zero number. Therefore the arithmetic logic unit cannot compute a division by zero.
Communication Error	Online systems require connections to host servers. If this connection is dropped, unable to be established or the server is overloaded, it could potentially cause a program to crash or hang when loading/saving data.
Peripheral Error	Any peripheral may be in an error mode (e.g. paper jam)
Disk Error	Programs that read and write to files must handle <u>exceptions</u> , including: <ul style="list-style-type: none"> <li>The file/folder not being found.</li> <li>The disk being out of space.</li> <li>The data in the file being corrupt.</li> <li>The end of the file being reached</li> </ul>
Authentication	<ul style="list-style-type: none"> <li>Username and password to access systems.</li> <li>Password recovery by e-mailing to an authenticated e-mail address.</li> <li>Encryption of data files.</li> <li>Check for human and not bot attempting access (e.g. reCAPTCHA)</li> </ul>

## 6. Refining Algorithms

What do we mean by refining?	<ul style="list-style-type: none"> <li>Code should anticipate all inputs and it should deal with 'bad' data, or missing data, and not crash.</li> <li>It should ensure prompts to the user are helpful and that the input can only be of the correct type</li> </ul>
How to refine	Many languages have exception handling commands

## 3. Maintainability

Comments	These explain the purpose of the program, or a section of code. They may also explain any unusual approaches or temporary 'fixes'
White Space	Make each section of the code stand out. Use spaces so code is not cramped up and hard to read
Indentation	Mandatory in Python but use indentation to show the flow of the program
Variable Names	Use sensible variable names that have some meaning as to what they are being used for
Sub Programs	Use Procedures and functions to structure the code and eliminate duplicating portions of it
Constants	Declare constants at the top of the program

## 4. Testing

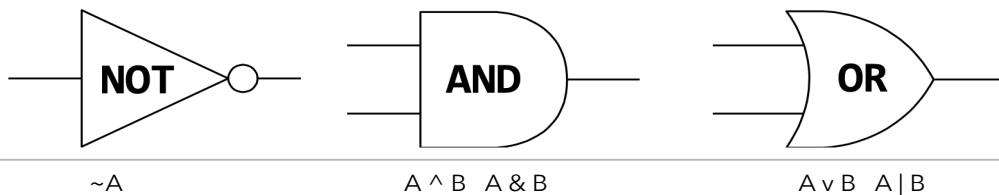
Reasons for Testing	<ul style="list-style-type: none"> <li>To ensure there are no errors (bugs) in the code.</li> <li>To check that the program has an acceptable performance and usability.</li> <li>To ensure that unauthorised access is prevented.</li> <li>To check the program meets the requirements</li> </ul>
Iterative Testing	<ul style="list-style-type: none"> <li>Each new module is tested as it is written.</li> <li>Program branches are checked for functionality.</li> <li>Checking new modules do not introduce new errors in existing code.</li> <li>Tests to ensure the program handles erroneous data and exceptional situations.</li> </ul>
Final / Terminal Testing	<ul style="list-style-type: none"> <li>Testing that all modules work together (integration testing)</li> <li>Testing the program produces the required results with normal, boundary, invalid and erroneous data.</li> <li>Checking the program meets the requirements with real data.</li> </ul>

## 5. Suitable Test Data

Normal Inputs	Data which should be accepted by a program without causing errors
Boundary Inputs	Data of correct type on the edge of accepted validation boundaries
Invalid Inputs	Data of the correct type but outside accepted validation checks
Erroneous Inputs	Data of the incorrect type which should be rejected by a computer system. This includes no input being given when one is expected

# Knowledge Organiser 14 : Boolean logic, Programming Languages and IDEs

## 1. Logic Gate Symbols



## 2. Truth Tables

A	NOT A	A	B	A AND B	A	B	A OR B
0	1	0	0	0	0	0	0
1	0	0	1	0	0	1	1
		1	0	0	1	0	1
		1	1	1	1	1	1

## 4. Translators

Assembler	Assembles' assembly language into machine code. Translates the whole code before execution
Compiler	Translates source code from high-level languages into object code and then into machine code ready to be processed by the CPU. The whole program is translated into machine code before it is run.
Compiler Advantages	<ul style="list-style-type: none"> <li>No need for translation software at run-time, and no need to share original source code</li> <li>Speed of execution is faster because code is usually optimised.</li> </ul>
Compiler Disadvantages	<ul style="list-style-type: none"> <li>You cannot compile the program if there are syntax errors anywhere in it which can make it tricky to debug.</li> <li>If you change anything you need to recompile the code</li> </ul>
Interpreter	Translates source code from high level languages into machine code ready to be processed by the CPU. The program is translated line by line as the program is running.
Interpreter Advantages	<ul style="list-style-type: none"> <li>Easy to write source code because the program will always run, stopping when it finds a syntax error.</li> <li>Code does not need to be recompiled when code is changed, and it is easy to try out commands when the program has paused after finding an error.</li> </ul>
Interpreter Disadvantages	<ul style="list-style-type: none"> <li>Translation software is needed at run-time, so you need to share the original source code.</li> <li>Speed of execution is slower because the code is not optimised</li> </ul>

## 3. Levels of Programming Languages

Machine Code 1st Generation	<ul style="list-style-type: none"> <li>Binary representation of instructions in a format that the CPU can decode and execute.</li> <li>Have an operation code (opcode) instruction and address or data to use (operand).</li> </ul>
Low-Level Languages 2nd Generation	<ul style="list-style-type: none"> <li>Written in Assembly language.</li> <li>Translated by an assembler into machine code.</li> <li>Used for embedded systems and device drivers where instructing the hardware directly is necessary.</li> <li>One instruction translated into one machine code instruction.</li> <li>The code works on one type of processor only.</li> <li>The programmer works with memory directly.</li> <li>Code is harder to write and understand.</li> <li>Memory efficient.</li> <li>Code is fast to execute.</li> </ul>
High-Level Languages 3rd Generation	<ul style="list-style-type: none"> <li>Source code is written in languages as Python, C++.</li> <li>Translated by a compiler or interpreter into machine code.</li> <li>Makes the writing of computer programs easier by using commands that are like English.</li> <li>One source code instruction translates to many machine code instructions.</li> <li>Code will run on different types of processors.</li> <li>The programmer has lots of data structures to use.</li> <li>Code is quicker and easier to understand and write.</li> <li>Less memory efficient.</li> <li>Code can be slower to execute if it is not optimised.</li> </ul>

## 5. Integrated Development Environments

Debugging Tools	<ul style="list-style-type: none"> <li>Breakpoints – stopping at a line of code during execution.</li> <li>Stepping through lines of code one at a time.</li> <li>Tracing through a program to output the values of variables.</li> </ul>
Run Time Environment	<ul style="list-style-type: none"> <li>Output window.</li> <li>Simulating different devices the program can run on.</li> </ul>
Usability Functions	<ul style="list-style-type: none"> <li>Navigation, showing/hiding sections of code.</li> <li>Formatting source code often in different colours.</li> <li>Text-editor functions</li> <li>Illustrating keyword syntax and auto-completing command entry.</li> </ul>
Translator	Some IDEs have an inbuilt translator to test the program and make small alterations before compiling the final program into an executable file for distribution

## Year 11 Ethics: Religion, Peace and Conflict: Knowledge Organiser

Important Key words to remember		Key beliefs	Key beliefs
War	Fighting between nations to resolve issues between them	1. War as conflict is a way of resolving differences. The intention to fight is often to create peace once the war is over as war is expensive and not sustainable.  Islam is Arabic means 'salam' or peace. 'As-salamu alaikum' means 'peace be with you'.	11. Holy Wars are fought in defence or in promotion of a religion. Muslims have rules as to how a Holy War should be fought. In the Old Testament wars were fought to gain the Promised Land where the Jews would eventually live. The teachings of Jesus, however, make it quite clear that the use of violence is not justified.
Justice	Bringing about what is right and fair, according to the law, or making up for a wrong that has been committed.		
Peace	An absence of conflict, which leads to happiness and harmony	2. Justice, forgiveness and reconciliation strongly link to one another. All are needed for peace to occur.	12. Pacifism is considered an alternative to conflict. Organisations such as the Muslim Peace Fellowship and the Anglican Pacifist Fellowship all promote pacifism. Islam is a religion of peace, although the duty of jihad makes it difficult for Muslims to identify with it.
Forgiveness	Showing mercy and grace and pardoning someone for what they have done wrong	'Just' is one of 99 names of Allah. The Bible speaks of God showing justice and forgiveness, thus Christians should show the same.	
Reconciliation	The restoring of harmony after relationships have broken down	3. The UK law considers protest to be a right and part of citizen's democratic freedom. The rules: police must know 6 days in advance, police can alter the route or apply for a ban if possible violence.	13. Both Islam and Christianity work to help the victims of war. Islamic Relief, Muslim Aid, Caritas and Christian Aid are examples of present day organisations. They provide financial help to widows and orphans as well as rehabilitation.
Protest	An expression of disapproval, often in a public group		
Violence	Using actions that threaten or harm someone	4. No religion promotes violence and generally all agree that violence should be avoided.  Peaceful protests are often preferred to violence. The work of Dr Martin Luther King Jnr. during the civil rights movement is an example of this.	<b>Key quotes to remember</b>  "The servants of the Lord of Mercy are those who <b>walk humbly</b> on the earth, and who, when aggressive people address them, reply, with <b>words of peace</b> ". Qur'an 25:63
Terrorism	The unlawful use of violence, usually against innocent civilians, to achieve a political goal		
Greed	Selfish desire for something	5. Terrorism is condemned by main-stream religious groups. This is because the actions often result in the death of innocent people.  However, although most religions have extreme groups in their faith.	"Do not take life, which God has made <b>sacred</b> " Qur'an 17:33
Self-defence	Acting to prevent harm to yourself or others		"Know the <b>evil of war is swift</b> , and its <b>taste bitter</b> " Hadith
Retaliation	Deliberately harming someone as a response to them harming you	6. Greed for land, wealth or power can lead a country to challenge a weaker country, invade and take the resources they were after.	"Those who have been attacked are <b>permitted to take up arms</b> because they have been wronged" Qur'an 22:39
Just War	A war that meets internationally accepted criteria for fairness; follows traditional Christian rules for a just war, and is now accepted by all other religions.	7. Self-defence is usually considered to be a morally acceptable reason to go to war e.g. Great Britain defended itself in WWII against Nazi Germany.	"Whoever saved a life, it would be as if they <b>saved the life of all mankind</b> " Qur'an 5: 32
Holy War	Fighting for a religious cause or God, probably controlled by a religious leader	8. Sometimes wars are fought in retaliation against a country which is seen to have done something wrong e.g. the invasion of Afghanistan in response to the attack on the World Trade Centre in NYC.	"But I tell you, <b>do not resist an evil person</b> . If anyone slaps you on the right cheek, turn to them the other cheek also" Matthew 5:39
Lesser jihad	The outward struggle to defend one's faith, family and country from threat		
Weapons of mass destruction/chemical/biological weapons	Weapons that kill large numbers of people/ weapons that use chemical to poison, burn or paralyse humans and destroy the natural environment/ weapons that contain living organisms or infective material leading to disease or death.	9. There are differing types of weapons. Often weapons of mass destruction are held by countries so that they are feared by other countries. In 2015, nine nations possessed around 15,700 nuclear weapons between them.  10. Religions use rules to determine whether they should go to war or not. Muslims call it a just war as part of lesser jihad. Christians have the 4 <sup>th</sup> Century theory on Just War – 9 ways and reasons to go to war.	"You have heard that it was said to the people long ago. 'You shall not murder, and anyone who murders will be subject to judgment.' But I tell you that anyone who is angry with a brother or sister will be subject to judgement." Matthew 5: 21-22
Greater jihad	The personal inward struggle of all Muslims to live in line with the teachings of their faith		"For the <b>love</b> of money is a root of all kinds of evil" 1 Timothy 6:10
Pacifism	The belief of people who refuse to take part in war and any other form of violence		

## Year 11 Ethics: Christian Practices: Knowledge organiser

Key Words			
Believer's Baptism	Service where those old enough to decide for themselves are welcomed into the church	Liturgical Worship	Formal worship with set prayers, hymns and Bible readings
Christmas	Christian festival which celebrates the incarnation (birth) of Christ	Mission	The calling to spread the word of God and evangelise
Consecration	When a priest blesses bread and wine in order to use it for Eucharist	Non-liturgical worship	Worship with no set pattern, may have modern music and sermons
Easter	Christian festival which celebrates the resurrection of Christ	Persecution	Hostility and ill-treatment of a group of people
Eucharist	Service where bread and wine is received by Christians to remember Jesus' sacrifice	Pilgrimage	Going on a journey to visit a holy site
Evangelism	Spreading the word of God through action or speech	Prayer	A communication with God, can be private or during worship
Infant Baptism	Service where babies are welcomed into the church with holy water	Reconciliation	Restoring friendly relations after a conflict or falling out

Key Ideas			
<b>Worship + Prayer</b> 	<p><b>Liturgical Worship</b></p> <ul style="list-style-type: none"> <li>- This form of worship takes place in a church and is led by a priest</li> <li>- <b>Formal, set prayers</b> are read out</li> <li>- A more <b>traditional</b>, and formal form of worship</li> </ul> <p><b>Non-liturgical Worship</b></p> <ul style="list-style-type: none"> <li>- Also takes place in a church but <b>less formal</b></li> <li>- No set prayers, instead people take turns to preach and read from the <b>Bible</b></li> <li>- Can be modern and appealing to young people</li> </ul>	<b>Prayer</b>	<ul style="list-style-type: none"> <li>- Prayer means <b>communicating with God</b>, either silently or out loud, sometimes through song</li> <li>- It is one of the most important parts of the spiritual life of a Christian and enables them to have a personal relationship with God</li> <li>- <b>Intercessions</b> are prayers made on behalf of others</li> <li>- <b>Thanksgiving</b> is when people pray to say thank you to God</li> <li>- <b>Set prayers</b> are written down and used in liturgical worship</li> <li>- <b>Informal prayer</b> is off-the-cuff and often used in non-liturgical worship</li> </ul>
<b>Eucharist + Baptism</b> 	<p><b>Eucharist</b></p> <ul style="list-style-type: none"> <li>- Eucharist and baptism are both sacraments meaning special occasions in a Christian's life</li> <li>- In Eucharist a priest <b>consecrates</b> (blesses) <b>bread</b> and <b>wine</b> and the congregation then receives these</li> <li>- <b>Catholics</b> believe the Holy Spirit transforms the bread and wine into Jesus' body and blood</li> <li>- <b>Anglicans</b> believe the bread and wine are symbolic</li> <li>- Christians take part in this ritual in order to remember the <b>sacrifice</b> Jesus Christ made for them by being <b>crucified</b> on the cross</li> </ul> <p><i>"For whenever you eat this bread and drink this cup, you proclaim the Lord's death until he comes" – 1 Corinthians 11:26</i></p>	<b>Infant Baptism</b>	<ul style="list-style-type: none"> <li>- This is a <b>formal</b> service welcoming a new child into the Christian church</li> <li>- <b>Holy water</b> is sprinkled over the baby's head</li> <li>- All Catholics baptise their children close to birth in order to ensure they go to heaven</li> </ul>
<b>Pilgrimage + Festivals</b> 	<p><b>Pilgrimage</b></p> <ul style="list-style-type: none"> <li>- A pilgrimage is a journey made by a Christian to a holy site</li> <li>- Catholics go on pilgrimage to Lourdes where a vision of Mary was once seen, they believe the water there has healing effects</li> </ul>	<b>Christmas</b>	<ul style="list-style-type: none"> <li>- Christmas celebrates the incarnation (birth) of Jesus Christ</li> <li>- Christians give gifts to commemorate the gift of God sending his own son to the world</li> </ul>
<b>Evangelism + Church in the Community</b> 	<p>Christians have a duty to <b>evangelise</b> (tell others of the word of God). An example is the <b>Alpha Course</b> which is an educational course that tells people more about the life of Jesus.</p>	<b>Easter</b>	<ul style="list-style-type: none"> <li>- Easter celebrates the resurrection of Jesus Christ</li> <li>- Christians celebrate by saying "<b>he is risen</b>" and by eating chocolate eggs that represent new life</li> </ul>
<b>Reconciliation</b> 	<ul style="list-style-type: none"> <li>- Christians across the world play an important role in <b>reconciliation</b> (seeking to restore friendly relations after a conflict or falling out)</li> <li>- An example is <b>Coventry Cathedral</b> which was bombed during World War II but now seeks to create peace and reconciliation elsewhere in the world. <b>The World Council of Churches</b> also works to help after conflict.</li> <li>- In some places Christians face <b>persecution</b> where they are treated badly for their faith. Churches around the world work together to try and overcome this.</li> </ul>	Christians also have a duty to <b>help others in the local community</b> . Two examples of this are <b>Street Pastors</b> who help drunk people at night and <b>Food Banks</b> that provide food to people in poverty.	

# Knowledge Bank for Year 11 – Healthy Living

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## Week 1 – Healthy Habits – due 12/01

Learn the following vocabulary. Create flashcards and use look, cover, write and check to practise.

French	English
Pour garder la forme	To keep in shape
je mange	I eat
je bois	I drink
je dors	I sleep
je marche	I walk
je cours	I run
(bon pour) la santé	(good for your) health
(bon pour) le corps	(Good for the) body
le fruit	fruit
le légume	vegetable
le fast-food	fast food
sain	healthy
malsain	unhealthy
bon	good
mauvais	bad
équilibré	balanced

Translate the following sentences into French:

1. To keep in shape, eat fruit because it's healthy.
2. I drink water because it's good for your health.
3. I sleep when I am tired because it's important.
4. I walk because it's good for the body.
5. I keep in shape I eat balanced and healthily.

## Week 2 – Food and Drink – due 19/01

Learn the following vocabulary. Create flashcards and use look, cover, write and check to practise.

French	English
je prends	I take
je prépare	I prepare
je choisis	I choose
je cuisine	I cook
je mange	I eat
Afin que je puisse	So that I can
le repas	Meal
le petit-déjeuner	breakfast
le déjeuner	lunch
le dîner	dinner
le fromage	cheese
le gâteau	Cake
l'eau	water
le jus	Juice
délicieux	delicious
sucré	sweet

Translate the following sentences into French (use previous week if stuck on any!)

1. I choose juice because it's sweet.
2. I cook dinner and it's delicious.
3. I eat breakfast and lunch so that I can do sport
4. I prepare a healthy lunch because it's good for my health.
5. I drink water and eat fruit.

## Week 3 – Exercise and Fitness – due 26/01

Learn the following vocabulary. Create flashcards and use look, cover, write and check to practise.

French	English
je fais du sport	I do sport
je joue au foot	I play football
je nage	I swim
je fais du vélo	I cycle
je cours	I run
le sport	sport
le gymnase	gym
le terrain	field
le ballon	ball
le match	match
actif	active
sportif	sporty
fatigué	tired
fort	strong
rapide	fast

Translate the following sentences into French (use previous week to help if stuck!)

1. I do sport so that I can keep in shape.
2. I play football and I run so that I can keep in shape
3. I swim because it's good for my health.
4. I cycle and I play a match because it's good for the body
5. I go to the gym because I am sporty and so that I can stay in shape

## Week 4 – Rest and Wellbeing – due 02/02

Learn the following vocabulary. Create flashcards and use look, cover, write and check to practise.

French	English
reposer	To relax
je me repose	I rest
je me relaxe	I relax
je dors	I sleep
je lis	I read
je regarde la télé	I watch TV
le lit	Bed
le canapé	Sofa
le livre	Book
la télé	TV
le repos	Rest
calme	Calm
tranquille	Peaceful
ennuyeux	Boring
intéressant	Interesting
relaxant	Relaxing

Translate the following sentences into French:

1. I rest in the evening and it's peaceful
2. I relax and read a book.
3. I sleep because it's relaxing.
4. I watch TV so that I can relax
5. I rest on the sofa and I read so that I can relax

## Week 5 – Risks and Choices – due 09/02

Learn the following vocabulary. Create flashcards and use look, cover, write and check to practise.

French	English
Si je fume	If I smoke
Si je vapote	If I vape
j'évite	I avoid
je choisis	I choose
je decide	I decide
Je prends	I take/ make
la cigarette	cigarette
la vape	vape
le choix	choice
la decision	decision
le risque	risk
Dangereux	dangerous
Mauvais	bad
Sain	healthy
Utile	useful
Néfaste	harmful

Translate the following sentences into French:

- I avoid smoking because it's dangerous.
- If I choose healthy food it's good for the body.
- I decide to eat vegetables so that I can stay in shape.
- If I vape it's harmful and the risk is terrible!
- I make a healthy decision.

## Week 6 – Conditional Tense Verbs (half term homework due 23/02)

Learn the following vocabulary. Create flashcards and use look, cover, write and check to practise.

French	English
je mangerais	I would eat
je boirais	I would drink
je dormirais	I would sleep
je marcherais	I would walk
je courrais	I would run
je prendrais	I would take
je choisirais	I would choose
je cuisinerais	I would cook

Translate the following sentences into French:

- I would eat fruit every day.
- I would drink water because it's healthy.
- I would sleep more.
- I would walk to school.
- I would cook dinner for my family.

## Week 7 – Past Tense Practice – due 02/03

Learn the following vocabulary. Create flashcards and use look, cover, write and check to practise.

French	English
j'ai mange	I ate
j'ai bu	I drank
j'ai dormi	I slept
j'ai marché	I walked
j'ai couru	I ran
j'ai pris	I took
j'ai choisi	I chose
j'ai cuisine	I cooked
j'ai joué	I played
j'ai lu	I read
j'ai regardé	I watched
j'ai évité	I avoided
j'ai décidé	I decided
Je n'ai pas fumé	I did not smoke
Je n'ai pas vapoté	I did not vape

Translate the following sentences into French:

1. I ate fruit yesterday.
2. I drank juice this morning because it's healthy.
3. I slept well last night so that I can play football with my friends.
4. I walked to school.
5. I played football and read a book so that I can relax.

## Week 8 – Future Tense Practice (due 09/03)

Learn the following vocabulary. Create flashcards and use look, cover, write and check to practise.

French	English
je mangerai	I will eat
je boirai	I will drink
je dormirai tôt	I will sleep early
je marcherai	I will walk
je courrai	I will run
je prendrai	I will take
je choisirai	I will choose
je cuisinerai	I will cook
je jouerai	I will play
je lirai	I will read
je regarderai	I will watch
j'éviterai	I will avoid
je déciderai	I will decide
je ne fumerai jamais	I will never smoke
je ne vapoterai jamais	I will never vape

Translate the following sentences into French:

1. I will eat vegetables tomorrow.
2. I will drink water after sport.
3. I will sleep early because it's healthy.
4. I will never smoke because it's unhealthy.
5. I will cook a healthy meal so that I can stay in shape.



The structure of the Earth		Volcanic Hazards			Managing Volcanic Eruptions	
The Crust	Varies in thickness (5-10km) beneath the ocean. Made up of several large plates.	Ash cloud	Small pieces of pulverised rock and glass which are thrown into the atmosphere.		Warning signs	Monitoring techniques
The Mantle	Widest layer (2900km thick). The heat and pressure means the rock is in a liquid state that is in a state of convection.	Gas	Sulphur dioxide, water vapour and carbon dioxide come out of the volcano.		Small earthquakes are caused as magma rises up.	Seismometers are used to detect earthquakes.
The Inner and outer Core	Hottest section (5000 degrees). Mostly made of iron and nickel and is 4x denser than the crust. Inner section is solid whereas outer layer is liquid.	Lahar	A volcanic mudflow which usually runs down a valley side on the volcano.		Temperatures around the volcano rise as activity increases.	Thermal imaging and satellite cameras can be used to detect heat around a volcano.
		Pyroclastic flow	A fast moving current of super-heated gas and ash (1000°C). They travel at 450mph.		When a volcano is close to erupting it starts to release gases.	Gas samples may be taken and chemical sensors used to measure sulphur levels.
		Volcanic bomb	A thick (viscous) lava fragment that is ejected from the volcano.		Preparation	

#### Convection Currents

#### LIC -CS: Nepal 2015

The crust is divided into tectonic plates which are moving due to convection currents in the mantle.

- 1 Radioactive decay of some of the elements in the core and mantle generate a lot of heat.
- 2 When lower parts of the mantle molten rock (Magma) heat up they become **less dense** and **slowly rise**.
- 3 As they move towards the top they cool down, become **more dense** and **slowly sink**.
- 4 These **circular movements** of semi-molten rock are **convection currents**
- 5 Convection currents create **drag** on the base of the tectonic plates and this causes them to move.

**Causes**  
On a destructive plate margin, involving the Eurasian and Indo Australian plates. The [magnitude 7.8 earthquake](#) occurred on 25th April 2015.

**Effects**  
9,000 people died and 22,000 injuries. Avalanches triggered in Himalayas. 800,000 buildings damaged or destroyed. Mountain roads were blocked by landslides

**Management**  
India and China sent rescue teams. Oxfam provided food, shelter and water. Education - earthquake drills. Road from Nepal to Tibet opened after 2 years.

#### Earthquake Management



#### PREDICTING

##### Methods include:

- Satellite surveying (tracks changes in the earth's surface)
- Laser reflector (surveys movement across fault lines)
- Radon gas sensor (radon gas is released when plates move so this finds that)
- Seismometer
- Water table level (water levels fluctuate before an earthquake).
- Scientists also use seismic records to predict when the next event will occur.

#### PROTECTION

You can't stop earthquakes, so earthquake-prone regions follow these three methods to reduce potential damage:

- Building earthquake-resistant buildings
- Raising public awareness
- Improving earthquake prediction

#### HIC - CS: New Zealand 2016

#### Causes

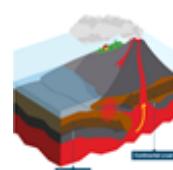
On a destructive and conservative plate margin involving the Indo-Australian and Pacific plates  
Magnitude 7.5 and occurred on 14th November 2016

#### Effects

Two people died.  
More than 50 injured.  
10,000s homes damaged.  
200km roads destroyed

#### Management

Warships were sent with food and medical supplies.  
Tsunami warnings.  
100,000 landslides occurred.



**Destructive Plate Margin**  
When the denser plate subducts beneath the other, friction causes it to **melt and become molten magma**. The magma forces its way up to the surface to form a volcano. This margin is also responsible for **devastating earthquakes**.

#### Constructive Plate Margin

Here two plates are **moving apart** causing new magma to reach the surface through the gap. Volcanoes formed along this crack cause a submarine mountain range such as those in the **Mid Atlantic Ridge**.

#### Conservative Plate Margin

A conservative plate boundary occurs where plates **slide past each other** in opposite directions, or in the same direction but at different speeds. This is responsible for earthquakes such as the ones happening along the San Andreas Fault, USA.

#### What is a Natural Hazard

A natural hazard is a natural process which could cause death, injury or disruption to humans, property and possessions.

#### Geological Hazard

These are hazards caused by land and tectonic processes.

#### Meteorological Hazard

These are hazards caused by weather and climate.

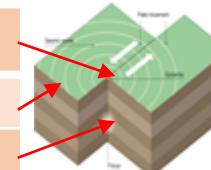
#### Causes of Earthquakes

Earthquakes are caused when two plates become **locked** causing **friction** to build up. From this **stress**, the **pressure** will eventually be released, triggering the plates to move into a new position. This movement causes energy in the form of **seismic waves**, to travel from the **focus** towards the **epicentre**. As a result, the crust vibrates triggering an earthquake.

The point directly above the focus, where the seismic waves reach first, is called the **EPICENTRE**.

**SEISMIC WAVES** (energy waves) travel out from the focus.

The point at which pressure is released is called the **FOCUS**.



Global pattern of air circulation			Changing pattern of Tropical Storms		Case Study: UK Flooding Somerset Levels 2014			
Atmospheric circulation is the large-scale movement of air by which heat is distributed on the surface of the Earth.			Scientist believe that global warming is having an impact on the frequency and strength of tropical storms. This may be due to an increase in ocean temperatures.		Causes End of 2013, UK was hit by a series of severe storms. Wettest January on record.			
Hadley cell	Largest cell which extends from the Equator to between 30° to 40° north & south.		Management of Tropical Storms		Effect	Management		
Ferrel cell	Middle cell where air flows <b>poleward</b> between 60° & 70° latitude.		<b>Protection</b> Preparing for a tropical storm may involve construction projects that will improve protection.	<b>Aid</b> Aid involves assisting after the storm, commonly in LIDs.	<ul style="list-style-type: none"> <li>600 houses flooded.</li> <li>Train services from Bristol to Exeter were disrupted.</li> <li>Nearly 7000 ha of farmland was under water for a month.</li> <li>Muchelney village was cut off.</li> </ul>	<ul style="list-style-type: none"> <li>Pumps were brought in from the Netherlands to help clear the water.</li> <li>20 Year flood action plan has been set up in the area.</li> <li>River channels have been dredged so they can hold more water.</li> </ul>		
Polar cell	Smallest & weakest cell that occurs from the poles to the Ferrel cell.		<b>Development</b> The scale of the impacts depends on the whether the country has the resources cope with the storm.	<b>Planning</b> Involves getting people and the emergency services ready to deal with the impacts.	What is Climate Change?			
Distribution of Tropical Storms.		High and Low Pressure		Climate change is a large-scale, long-term shift in the planet's weather patterns or average temperatures. Earth has had tropical climates and ice ages many times in its 4.5 billion years.				
They are known by many names, including hurricanes (North America), cyclones (India) and typhoons (Japan and East Asia). They all occur in a band that lies roughly 5-15° either side of the Equator.		Low Pressure	High Pressure	Recent Evidence for climate change.				
		Caused by hot air rising. Causes stormy, cloudy weather.	Caused by cold air sinking. Causes clear and calm weather.	<b>Prediction</b> Constant monitoring can help to give advanced warning of a tropical storm	<b>Education</b> Teaching people about what to do in a tropical storm.	Global temperature		
				Primary Effects of Tropical Storms		Ice sheets & glaciers		
				<ul style="list-style-type: none"> <li>The intense winds of tropical storms can destroy whole <b>communities, buildings and communication networks</b>.</li> <li>As well as their own destructive energy, the winds can generate abnormally high waves called <b>storm surges</b>.</li> <li>Sometimes the most destructive elements of a storm are these subsequent <b>high seas and flooding</b> they cause to coastal areas.</li> </ul>		Sea Level Change		
				Secondary Effects of Tropical Storms		Enhanced Greenhouse Effect		
				<ul style="list-style-type: none"> <li>People are <b>left homeless</b>, which can cause distress, poverty and ill health due to lack of shelter.</li> <li><b>Shortage of clean water and lack of proper sanitation</b> makes it easier for diseases to spread.</li> <li><b>Businesses are damaged</b> or destroyed causing employment.</li> <li>Shortage of food as <b>crops are damaged</b>.</li> </ul>		Recently there has been an increase in <b>humans burning fossil fuels</b> for energy. These fuels (gas, coal and oil) emit <b>greenhouse gases</b> . This is making the Earth's atmosphere thicker, therefore trapping more solar radiation and causing <b>less to be reflected</b> . As a result, the Earth is becoming warmer.		
Formation of Tropical Storms		Case Study: Typhoon Haiyan 2013		Evidence of natural change				
1	The sun's rays heats large areas of ocean in the summer and autumn. This causes <b>warm, moist air</b> to rise over the particular spots	Causes		Orbital Changes	Some argue that climate change is linked to how the Earth orbits the Sun, and the way it wobbles and tilts as it does it.			
2	Once the <b>temperature is 27°</b> , the rising warm moist air leads to a <b>low pressure</b> . This eventually turns into a thunderstorm. This causes air to be sucked in from the <b>trade winds</b> .	Started as a tropical depression on 2 <sup>nd</sup> November 2013 and gained strength. Became a Category 5 "super typhoon" and made landfall on the Pacific islands of the Philippines.		Sun Spots	Dark spots on the Sun are called Sun spots. They increase the <b>amount of energy Earth receives</b> from the Sun.			
3	With trade winds blowing in the opposite direction and the rotation of earth involved (Coriolis effect), the thunderstorm will eventually start to <b>spin</b> .	Effects		Volcanic Eruptions	Volcanoes release large amounts of <b>dust containing gases</b> . These can <b>block sunlight</b> and results in cooler temperatures.			
4	When the storm begins to <b>spin faster than 74mph</b> , a tropical storm (such as a hurricane) is officially born.	<ul style="list-style-type: none"> <li>Almost <b>6,500 deaths</b>.</li> <li><b>130,000 homes destroyed</b>.</li> <li>Water and sewage systems destroyed had caused <b>diseases</b>.</li> <li><b>Emotional grief</b> for dead.</li> </ul>		Managing Climate Change				
5	With the tropical storm growing in power, <b>more cool air sinks</b> in the centre of the storm, creating calm, clear condition called the <b>eye of the storm</b> .	Management		Carbon Capture	This involves new technology designed to reduce climate change.			
6	When the tropical storm hits land, it <b>loses its energy source</b> (the warm ocean) and it begins to lose strength. Eventually it will 'blow itself out'.	<ul style="list-style-type: none"> <li>The UN raised <b>£190m</b> in aid.</li> <li>USA &amp; UK sent <b>helicopter carrier ships</b> deliver aid remote areas.</li> <li><b>Education</b> on typhoon preparedness.</li> </ul>		Planting Trees	Planting trees increase the amount of carbon is absorbed from atmosphere.			
			International Agreements		Renewable Energy			
			Countries aim to cut emissions by signing international deals and by setting targets.		Replacing fossil fuels based energy with clean/natural sources of energy.			

# HISTORY KNOWLEDGE ORGANISER – AMERICAN WEST

## 1. Early America

Independence	Plantations
Liberty	Reserve
Colony	Civilised
Constitution	Native
Congress	
The five civilised tribes:	
• Cherokee	
• Choctaw	
• Creek	
• Chickasaw	
• Seminole	



Declaration of Independence	1776
Original 13 States	1776
George Washington (first President)	1789
Lewis & Clark (Great American Desert)	1803
Louisiana Purchase	1819
Missouri Compromise signed	1820
Cotton Boom	1830
Indian Removal Act	1830
Indian Trade and Intercourse Act	1834
Seminole War	1835
The Creek War	1836
The Trail of Tears	1838

## 2. Indian Territory.

Federal/State	Dog Soldiers
Frontier	Scalping
Reservation	Coup Stick
Indian Territory	Brotherhoods
Savage	Great Spirit
Predators	Prey
Social Structure	Medicine Man
Nomadic	Spirit World
Travois/Tipi	Sun Dance
Collaboration	Sacred Land
Resourceful	Buffalo
Reverence	

US win the Mexican-American War	1848
Indian Appropriations Act	1851
The Fort Laramie Treaty	1851

‘For as long as the stars shall shine and the rivers flow.’  
Andrew Jackson (1834)



## 3. Early Settlement

Expansion	Mountain men
Natural Frontiers	Jim Bridger
Extreme weather	Bridger pass
Early Pioneers	Bridger trail
Independence	Fort Bridger
Mormons	Donner party
Joseph Smith	Wagon train
Brigham Young	Mining towns
Moroni	Law of the Gun
Religious Persecution	Claim-jumping
Dannites	Agricultural
Deseret	Climate

Lewis and Clark Expeditions	1803-6
Bank collapse	1837
Oregon Trail	1843
Manifest Destiny (John O’Sullivan)	1845
Californian Gold Rush	1849
Fort Laramie Treaty	1851
Horace Greeley ‘Go West young man’	1859



## 4. Civil War

Democrats	Assassination
Republicans	Immigrants
Secession	Deserters
Radical	Ex-Slaves
Reconstruction	Ex-Soldiers
Homesteaders	
Filing a claim	
13th Amendment	
Immigration	
Abolitionists	
Union/North/Blues/Free States	
Confederacy/South/Greys/Slave States	



The Missouri Compromise	1820
The Kansas-Nebraska Act ended M C	1854
Abraham Lincoln becomes President	1860
Confederate States refused secession	1861
American Civil War	1861-5
Emancipation Proclamation	1862
The ‘Black Codes’ (KKK)	1866
Reconstruction Acts	1867
The Reconstruction years	1865-77
Free States – Banned Slavery	
Slave States – Allowed Slavery	



## 5. Homesteaders and Farming

Pacific Railroad Act, 1862	Technology
Transcontinental	Timber
Open Range	Sod Houses
Rustling	Crops
Long Drives	Dry farming
Cattle Trails	Mennonites
Meat Packing	Turkey red wheat
Quarantine	
Vigilante	
Posse	
Lynching	
Marshal	

The US Civil War ends, herds multiplied	1865
Goodnight & Loving Trail	1866
Abilene (Joseph McCoy)	1867
‘Beef bonanza’	1870s
Open Range (John Iliff)	1870
Harsh winter (-55°C) ends Open Range	1886-7
Homestead Act ((160acres for \$10+\$30)	1862
Timber Culture Act (another 160 acres)	1873
Wind Pump (Daniel Halladay)	1874
Joseph Glidden (barbed wire)	1874
Sulky Plough (steel, spare parts)	1875
Desert Land Act (another 640 acres)	1877

## 6. Conflict & Conquest

Rustlers	Reason for Conflict:
Roundup	* Culture of the Plains Indians
Foreman	* Government policy
Treaty	* Destruction of the buffalo
Massacre	
Extinction	
Bozeman Trail	
Sacred	
Total War	
Clash of Cultures	
Assimilate	
Americanise	



Lincoln County War	1878
Johnson County War	1892
Little Crow’s War (let them eat grass)	1862
Sand Creek Massacre (Col Chivington)	1864
Red Cloud’s War	1866-8
2nd Treaty of Fort Laramie	1868
Gold found in the Black Hills of Dakota	1874
The Battle of the Little Bighorn	1876
The Exoduster Movement	1879
The Dawes Act	1887
Wounded Knee Massacre	1890
Oklahoma Land Rush	1893

## Section 2.4: Making Financial Decisions

### 2.4.1 Business Performance

Businesses use financial data to assess performance and make decisions.

Measure	What it shows	Why it's useful
Revenue	Income from sales	Shows how well the business is selling
Costs	Expenses to run the business	Helps control spending
Profit	Revenue - Costs	Shows overall financial success
Cash Flow	Money in vs. Money out	Ensures the business can pay its bills

### 2.4.2 Average Rate of Return (ARR)

ARR compares the average yearly profit from an investment to the original investment.

Formula	Explanation
$\text{ARR} = (\text{Average Annual Profit} \div \text{Cost of Investment}) \times 100$	Higher ARR = more profitable investment

- Used to compare investment options

- Helps decide if a project is worth funding
- Expressed as a percentage

### 2.4.3 Financial Decision Making

Financial data helps managers make informed decisions.

- Deciding whether to launch or stop a product
- Setting budgets and prices
- Planning for future growth

### 2.4.4 Key Terms & Ratios

Term	Definition
Revenue	Price $\times$ Quantity Sold
Fixed Costs	Costs that stay the same as output changes (e.g. rent)
Variable Costs	Change with output (e.g. materials)
Total Costs	Fixed + Variable Costs
Net Profit	Revenue - Total Costs
Gross Profit	Revenue - Cost of Goods Sold
Break-Even	Point where total revenue = total costs

## 2.4.5 Break-even Charts

Break-even analysis helps businesses plan how much they need to sell to cover costs.

- Break-even point = where Total Revenue meets Total Costs
- Margin of safety = how much sales exceed break-even
- Used for setting prices and planning output

## 2.4.6 Cash Flow Forecasting

Predicts how much money will flow in and out of a business over time.

- Helps identify times of cash shortage
- Assists with planning (e.g. needing a loan)
- Ensures payments can be made on time

Cash Flow Term	Explanation
Inflows	Money coming in (e.g. sales, loans)
Outflows	Money going out (e.g. rent, wages)
Net Cash Flow	Inflows - Outflows
Opening Balance	Cash at the start of the period
Closing Balance	Cash left at end = Opening + Net Flow

## Section 2.5: Making Human Resource Decisions

### 2.5.1 Organisational Structures

How a business is arranged in terms of roles and responsibilities.

Structure	Explanation	Examples/Features
Hierarchical	Multiple layers of management	Clear roles, long communication chains
Flat	Fewer management levels	Quicker communication, wider spans of control
Centralised	Decisions made at the top	Consistent policies, less local flexibility
Decentralised	Decisions made at various levels	More responsive to local needs

#### Communication

- Effective communication helps avoid mistakes and keeps employees informed
- Poor communication can lead to confusion and low morale
- 

### 2.5.2 Recruitment and Selection

Finding and hiring the right person for a job.

Step	Purpose
Job Description	Outlines the duties and responsibilities
Person Specification	Describes skills, qualifications needed
Application Form/CV	To apply for the job
Interviews/Tests	To assess suitability of candidates

- Internal recruitment: hiring from within the business
- External recruitment: hiring from outside the business

### 2.5.3 Training

Training develops skills, knowledge, and efficiency.

Type	Explanation	Example
<b>Induction</b>	Introduces new employees to the business	Company tour, policies
<b>On-the-job</b>	Training at the workplace	Shadowing, mentoring
<b>Off-the-job</b>	Training away from the job	Courses, workshops

- Improves productivity and motivation
- Can be costly and time-consuming

### 2.5.4 Motivation and Retention

Motivated employees are more productive and stay longer.

Method	Explanation
<b>Financial</b>	Pay, bonuses, commission
<b>Non-Financial</b>	Praise, flexible hours, career development
<b>Recognition</b>	Employee of the month, awards
<b>Job Enrichment</b>	Giving more responsibility and variety

- Retaining staff reduces recruitment costs
- Motivated staff give better customer service

### 2.5.5 Employment Law

Laws that protect employees and set out employer responsibilities.

Law/Right	Explanation
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<b>Minimum Wage</b>	Employees must be paid at least the legal minimum
<b>Discrimination</b>	Illegal to treat staff unfairly due to gender, race, etc.
<b>Health and Safety</b>	Workplaces must be safe for employees
<b>Contract of Employment</b>	Written agreement of terms and conditions

## Content area 1: Child development

### Physical Development

*Movements, balance and co-ordination*

**Fine motor** – small movements often made using hands, such as picking up a spoon or using a pencil

**Gross motor** – large movements such as running, balancing & throwing.

### Expected pattern of Physical development.

#### Fine motor

At birth:

- hands are firmly closed
- Often fold their thumb under fingers
- 1 years:
- Clasps hands together
- Points using index finger
- 2 years:
- Draws lines, dots and circles
- Separates interlocking toys
- 3 years:
- Fastens large zip
- Begins to show preference for dominant hand
- 4 years:
- Begins to fasten buttons
- Uses spoon and fork well to eat
- 5 years:
- Can use a knife and fork
- Can thread small beads

#### Gross Motor

At birth:

- Lies with head to one side
- Head lags when pulled to sitting position
- 1 year
- Sits down from standing
  - Is more mobile
  - 2 years
- Runs with control
- Throws and kicks a ball
- 3 years
- Can walk backwards and sideways
- Jumps with both feet

### Communication and Language development

*Talking, listening & understanding. Reading & writing for older children.*

**Receptive language** – what children can understand

**Expressive language** – what children can say

### Social & emotional development

*Relationships with others, managing feelings, confidence & self-control*

**Attachment** – a close bond between the child & their parents

**Bonding** – the process by which children & parents develop a strong loving relationship

### Cognitive development

*Thinking, memory & understanding concepts such as time, colour & number*

**Object permanence** – the ability to understand that objects when placed out of sight are still in existence

**Trial by error** – seeing what happens after an action has been made & learning from it.

### Expected pattern of communication and language development

At birth:

- Cries to indicate needs
  - Recognises main caregiver's voice
  - 1 years:
- Understands simple frequent words
- Babbles leading to spoken words
- 2 years:
- Uses 50 words or more
- Refers to self by name
- 3 years:
- Uses 200 words or more
- Joins in simple rhymes
- 4 years:
- Enjoys telling and sharing stories
- Can be understood easily by others
- 5 years:
- Shows signs of reading
  - Concentrates and maintains attention

### Holistic Development – Overall development of a child

### Expected pattern of social and emotional development.

At birth:

- Expresses pleasure when being fed
- Often imitates facial expressions
- 1 years:
- Enjoys simple games
- Dependant on others
- 2 years:
- Responds to gestures
- 2 year
- Understands consequences for actions
- Names pictures and objects in book
- 3 years:
- Recognises objects that are heavy and light
- Sorts objects by shape and size
- 4 years
- Counts to 10
- Names some colours
- 5 years:
- Can count to 20
- Understand basic rules

### Expected pattern of Cognitive development.

At birth:

- Turns head towards bright light
- Startled by sudden noises
- One year
- Understand simple instructions
- Responds to gestures
- 2 year
- Understands consequences for actions
- Names pictures and objects in book
- 3 years:
- Recognises objects that are heavy and light
- Sorts objects by shape and size
- 4 years
- Counts to 10
- Names some colours
- 5 years:
- Can count to 20
- Understand basic rules



**Transition** – a change of place, family circumstance and/or carer.

## Content area 2: Factors that influence the child's development

### Nature: Biological.

### Nurture: Environmental

Biological Factors	Example	Environmental factor	Example
<b>Physical traits</b> – some are linked to genetic inheritance.	Height, physical strength, face shape, eye colour.	<b>Love &amp; interaction</b> – children thrive if they feel loved & have plenty of positive attention from the adults who care for them.	Cuddles, time to talk, being spoken to positively, being listened to.
<b>Medical conditions</b> – most are linked to genetic inheritance.	Diabetes, asthma, sickle cell anaemia.	<b>Stimulation &amp; play</b> – children benefit if there are opportunities to play, talk and do different things.	Going to different places, doing different things, playing with adults and other children, sharing books.
<b>Learning difficulties</b> – are most likely as a result of genetic inheritance.	Autistic spectrum conditions, dyslexia.	<b>Physical conditions/ socio-economic</b> – Children need shelter, warmth and to be physically safe. They also need room to move and explore.	Warm home, opportunities to go outdoors, space to play indoors.
<b>Disabilities</b> – some are linked to genetic inheritance, whilst others may occur during pregnancy and birth	Deafness, sight problems, cerebral palsy, spina bifida.	<b>Food &amp; drink</b> – children need food & drink that is nutritious and healthy. This helps them to grow and have the energy to explore, move and learn.	Developing good food habits including enjoying vegetables and foods high in nutrients.
<b>Personality &amp; temperament</b>	Shyness, curiosity, outgoing	<b>Family Lifestyle:</b>	Abuse, neglect, drug/alcohol abuse, healthy diet, poor diet.
<b>Pregnancy &amp; birth</b> – how healthy a mother is during pregnancy can affect a child's development	German measles, fetal alcohol syndrome, spina bifida, developmental difficulties.	<b>Personal factors</b> are about inherited traits and also what happened before and immediately after you were born. <b>External factors</b> are about where and how you grew up. They also include the events and experiences that you have had.	

### Common Transitions

- Going to a pre-school, nursery or childminder
- Starting school
- Being cared for by a family member
- Going to a club or class
- Changing group or class within a nursery, pre-school or school.
- Arrival of a new baby
- Moving home
- Death or illness of a family member
- Family breakdown e.g. divorce

### Impacts of transitions on a child's development

- Language development** child not wanting to talk, finding it hard to listen and withdrawing.
- Intellectual development** concentration, memory may be limited, children need to be interested in what they are learning.
- Social & emotional** can cause anxiety, behavioural changes.
- Physical** can be loss of appetite. Sleep patterns, regression

### Illness – Stress

affects how well children can fight illness. They may get more coughs and colds than usual.



**Sleep** – When children are stressed, they find it hard to get to sleep or may wake up a lot.

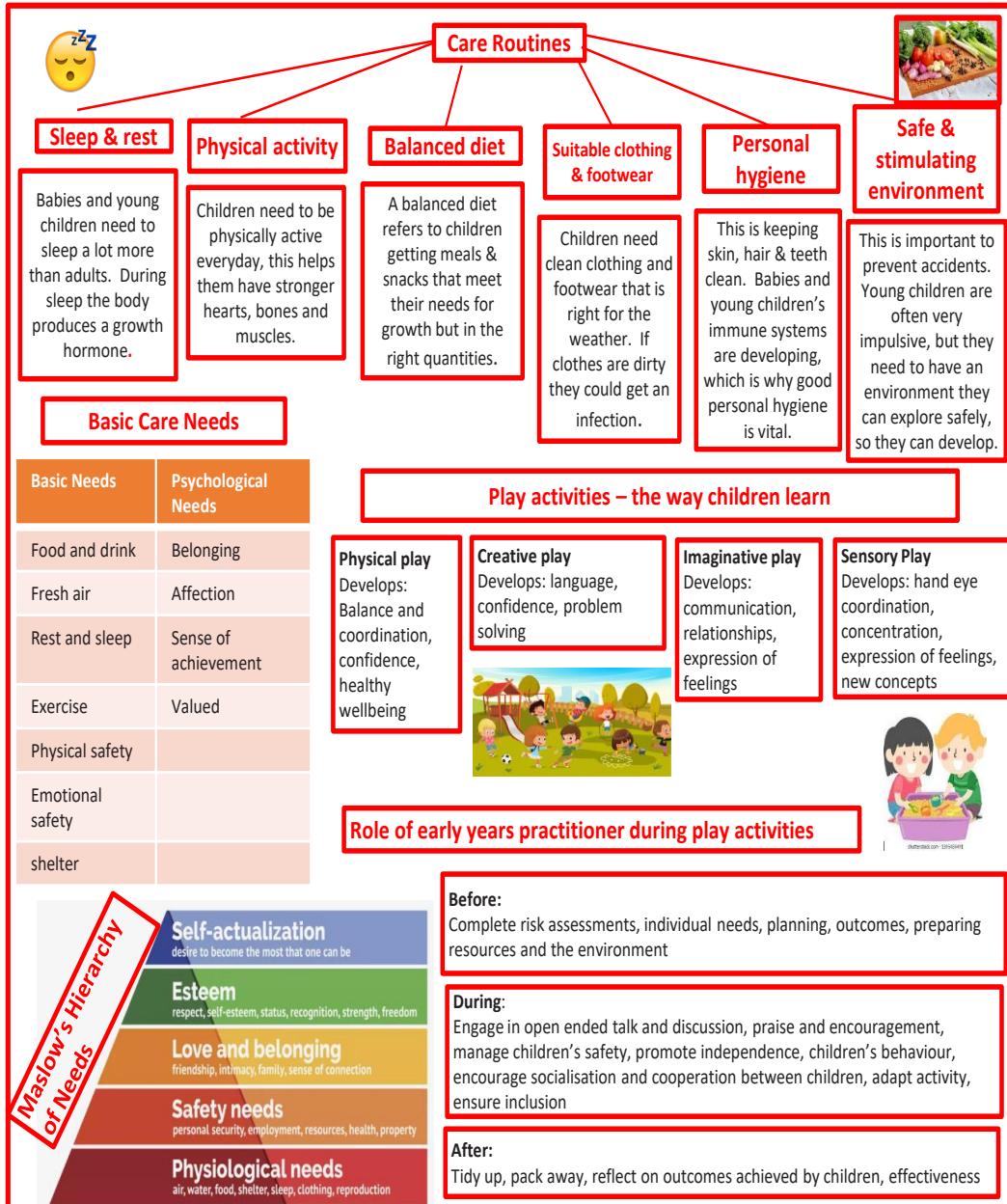


### Possible effects of transitions

**Feeding** – When children are unsure or stressed, they may find it hard to eat or lose their appetite.

**Lack of energy/ interest** – Children may not be interested or have the energy to run or explore, this can mean that physical skills are not being practised.

## Content Area 3: Care routines, play and activities to support the child



## Content Area 4: Early Years Provisions

<b>Statutory</b> - These are services that have to be available by law, i.e. through legislation which requires either the government or local authorities to provide them.	<b>Private</b> - These are profit-making services. They will be run by a owner or company.	<b>Independent</b> - These are services that are provided independently of the state and do not rely on government funding	<b>Voluntary</b> - These are services that are usually run by a charity, where some or all of their funding comes from donations.
<b>Setting</b>	<b>Description</b>		<b>Age</b>
Registered childminder	A registered childminder looks after the children in their own home and is self-employed. They need to be registered and inspected by Ofsted, and offer flexible and individualised care for children. They can look after up to six children between the ages of birth to eight years, including their own.		0-8yrs+
School-based nursery	A school-based nursery will be attached to an infant or primary school. They only run during term time. A child may start from two years in an independent school. However, a school-based nursery usually starts the year before the child begins full time education in Reception, so around four years.		Varies
Reception class	A school reception class will start during the years of the child's 5th birthday. Children may start by attending on a half-day basis but will quickly build up to a full day. School-based settings are registered and inspected by Ofsted.		4-5yrs
Children's centres	They offer a range of different services for children under five and their families. They may be located on school sites or local authority sites. These services also may differ within different areas, but may include health & support for families with young children. They also usually include play centres where parents can attend with their children.		0-5yrs
Day nursery	They must be registered and inspected by Ofsted and are usually open all day. They can be private, voluntary or workplace based. Some will have longer hours and will be open during weekends and evenings.		0-5yrs
Out of school clubs/ play centres	These are clubs which are run for school-age children before and after school, and may run during school holidays.		4+
Parent & toddler group	These are drop-in sessions for parents of young children and are usually run by volunteers and other parents. Parents will have responsibility for their children.		0-3yrs
Playgroup/ pre-school	They may be run by parents or children may be left in the care of staff. If children are left in the care of staff, they must be registered with Ofsted. They are usually run on a voluntary basis during term time and have sessions of around 3 hours.		2-5yrs
Workplace nursery	This provides care and education for children at the place where their parents work.		3 mths+
Nanny	A nanny is a carer who is employed by a child's parents to look after the child in their own home. Nannies will often look after more than one child if needed and are usually very flexible. However, although many do have training, they are not required to have qualifications.		0-5yrs+
Crèche	A crèche will provide interim care for children from time to time while their parents are engaged in a one-off activity such as shopping, sport, or other activity, usually on the same premises. They are not required to register with Ofsted but can choose to do so.		Varies

## Content Area 5: Legislation, policies and procedures in the early years

Regulatory authority – **OFSTED** – Part of the government, inspects settings to ensure suitability.

Legislation: A law, or set of laws that have been passed by parliament.

Framework: A set of standards that must be met.

Policy: An action adopted by an organisation.

Procedure: An established way of carrying out a policy.

Act	Policy	Procedure
The Health and Safety at Work Act 1974 – health, safety and welfare of children, staff and visitors within the workplace	<ul style="list-style-type: none"> <li>Health and safety policy</li> <li>Food and drink policy</li> <li>Visitors to the setting policy</li> </ul>	<ul style="list-style-type: none"> <li>Risk assessments</li> <li>Safe working practices during food prep</li> <li>Reporting accidents</li> <li>Signing visitors in and out</li> </ul>
United Nations Convention on Rights of the Child – 1989 – grants all children under 18 the rights	<ul style="list-style-type: none"> <li>Safeguarding</li> <li>Play policy</li> <li>Equality and diversity</li> </ul>	<ul style="list-style-type: none"> <li>Report abuse (record keeping/reporting)</li> <li>Provide play</li> <li>Adapt activities</li> </ul>
Equality Act 2010 – ensures an individual's characteristics are protected	<ul style="list-style-type: none"> <li>Equality and diversity</li> </ul>	<ul style="list-style-type: none"> <li>Provide resources that reflect society</li> <li>Good role model</li> <li>Adjust activities</li> </ul>
General Data Protection Regulation 2018 (GDPR) – data protection and privacy on how personal data is used and stored	<ul style="list-style-type: none"> <li>Confidentiality</li> </ul>	<ul style="list-style-type: none"> <li>Share information with consent</li> <li>Store information safely</li> <li>Share information on a 'need to know' basis</li> </ul>
The Early Years Foundation Stage Statutory Framework (EYFS)	<ul style="list-style-type: none"> <li>Keyworker</li> <li>Safeguarding</li> <li>Health and safety</li> </ul>	<ul style="list-style-type: none"> <li>Ensure staff/child ratio</li> <li>Respond to disclosure</li> <li>No personal use of mobiles</li> </ul>

### The role of the practitioner in supporting and maintaining these procedures.

**Health and safety procedure**

- risk assessments
- Security checks
- Safety of equipment
- First aid procedures
- Report incidents/accidents
- Hygiene routines
- Follow emergency and fire evacuation procedures
- Safe disposal of bodily fluids and waste
- Manual handling safety

**Equality and Inclusion Procedure**

- recognise and celebrate individuals
- Ensure dignity and respect
- Reasonable adjustments
- Appropriate resources
- Adapt materials
- Positive images
- Treating every equally
- Meeting individual needs
- Ensure anti-discriminatory practice

**Safeguarding Procedure**

- Protecting children
  - Physical abuse
  - Emotional abuse
  - Sexual abuse
  - Neglect
- How to respond and report

**Confidentiality Procedures**

- Build trust between all those involved
  - Safeguarding
  - Legal requirement
    - Privacy
    - Obtain consent/permission
- 'Need to know' principle

## Content Area 6: Expectations of the early years practitioner

### Behaviour

- Role model – Children will copy what you do, so always try to act as you want them to. E.g. when having lunch with a child, ensure you have good table manners.
- Positive attitude – smiling, offering to help, going the extra mile
- Professional boundaries,
- Working within the policies and procedures
- Effective communication

### Appearance

- Personal hygiene
- Body art, piercings, tattoos
- Clothing and accessories



### Timekeeping and attendance

- Punctuality
- Attendance
- Dealing with absence

## Content Area 7: Roles and responsibilities within early years settings

### Roles

- Manager
- Early years practitioner
- Room leader
- Key person
- Childminder
- Teaching assistant
- nanny

### Responsibilities

- Keeping children safe
- Support healthy development
- Promote development
- Work in partnership

**Partnership working:** different services and professionals working together with other teams or people to meet the child's and/or families needs.

**How partnership working benefits the child, family and the early years practitioner.**  
**Child:** promotes safeguarding, consistent care, interventions, holistic needs  
**Family:** support, shared goals, builds trust  
**Early Years Practitioner:** advice and information, planning activities, trust, shared goals, work together.



### Specialist roles inside the setting

SENDCO – Special educational needs and disabilities co-Ordinator

- Co-ordinates provision for children with SEN
- Responsible for overseeing, assessing, planning, and monitoring progress

DSL – Designated safeguarding lead

- Responsible for child protection
- Ensures policies and procedures are in place

Makes referrals

Monitors needs of children and families

PANCO – Physical activity and nutrition coordinator

- Acts as a champion for best practice
- Promotes health and wellbeing

Key person – A requirement of the early years foundation stage (EYFS)#

- Works with small groups of children
- Offers care to promote children's growth and development



### Specialist roles outside the setting

SEND teams:

- physiotherapist – helps and individual affected by injury, disability, illness with movement and exercise, manual therapy, education and advice
- Educational psychologist – assesses an individual with special needs, emotional or behavioural difficulties

Health professionals:

- General practitioner (GP) – diagnoses and treats medical conditions
- Paediatrician – doctor who specialises in the treatment and care of children and young people
- Health visitor – works with children and families to support and promote health and development
- Children's social care
- Social care – provides assessment of a child and their family needs and offers a range of support to ensure a child is protected and well cared for
- Family support worker – provides practical advice and support to the individuals and families in need on a range of issues.

## Content Area 8: The importance of observations in early years childcare

### How observations support child developments

#### Formative assessment:

- Assessments that inform planning and immediate responses to children
- Find out the child's interests
- Helps identifies stages of development
- Understand triggers in behaviour
- Gain insight to share with parents/carers/professionals
- Supports provision for the characteristics of effective learning
- Plan development activities

#### Summative assessment:

- Assessments that provide a summary of the child's learning and development at a point in time
- Evaluates effectiveness of interventions
- Supports assessment of the child's development
- Supports other professionals
- Plan learning and development activities
- Track progress against current frameworks

Holistic development: the overall development of a child.

### Different methods of observation

**Media methods:** Make a video recording, take a photograph, record observations in a digital format

**Learning journal:** Collection of notes, observations and thoughts built up over a period of time

**Post-it notes:** make a note of a child's behaviour or skill, temporarily attach a note to a document or surface

**Narrative/free description/written account:** a short observation focused on the child, write everything down during the period of observation of the child

**Checklist:** check whether the child can achieve a specialised skills, record findings.

Observation: the action or process of closely observing or monitoring something or someone.

### Objective and subjective observations

#### Objective:

- A record of what is seen and heard
- It does not include an opinion
- It states the facts and details only
- It avoids interpretation

#### Subjective:

- Is influenced by past events
- Is based on personal experiences
- Is based on opinion, feelings and assumptions
- Is subject to interpretation

### Components of recording observations

**Aim:** what the observer wants to find out

**Recording:** the method used, and information gained

**Evaluation:** an assessment of what has been observed and recorded

**Planning:** consider what should happen next to support the child and the activities that could support the holistic development



## Exam breakdown – How am I being assessed?

### Assessment breakdown

**Non-exam assessment (NEA)** 50%

**Examined assessment (EA)** 50%

**Total** 100%

- 1 hour 30 minutes examined assessment
- 14 hours non-exam assessment

Externally-set, internally marked and externally moderated:

- Synoptic project

Externally set and externally marked:

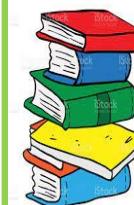
- Written exam

**Overall grades:**  
Level 1: pass, merit and distinction  
Level 2: pass, merit and distinction

## Top Exam Tips

### Before the exam

- Revision
- Plenty of rest/sleep
- Manage your time
  - Exercise
  - Ask for help
- Make a revision timetable
- Have enough food and drink
  - Get organised
  - Arrive early for exam



### During the exam

- Read questions carefully
- Answer every question
- Use all the time you have been provided
- Re-check your answers if you have spare time
- Highlight keywords if you find it helpful
  - Be positive
  - Stay calm



## Content Area 9: Planning in early years childcare

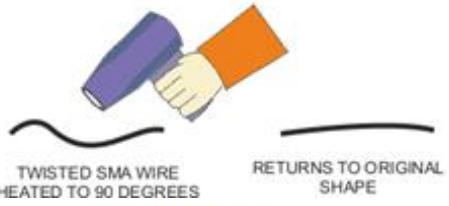
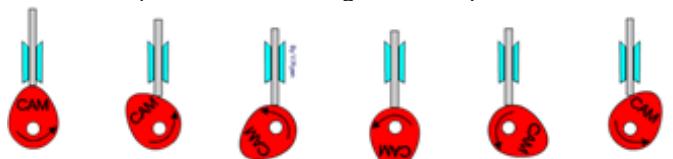
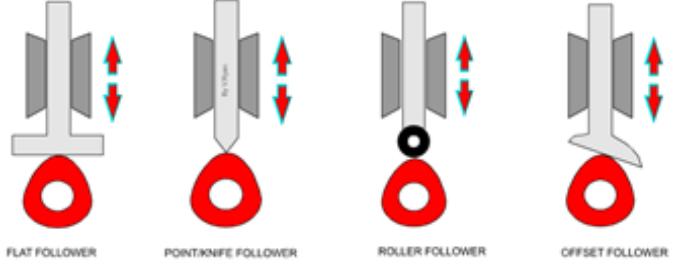
Child-centred approach – the approach enables children to initiate and direct their own play with the support of interested and responsive adults.

### Purpose of the planning cycle

- To identify the individual needs of the child
  - Physical
  - Cognitive
  - Communication and language
  - Social and emotional
- Identify support needs
- Establish action planning
- Develop partnership working
- Refer to other

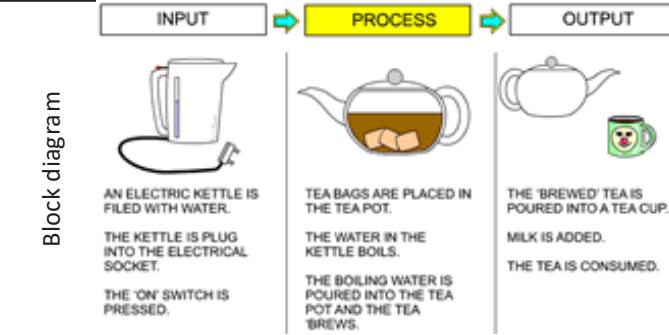
### Planning Cycle

- Observe** – the child's holistic growth and development
- Assess** – compare with expected milestones of development, against current framework expectations, where a child may need support or early intervention
- Plan** – agree and record what the child needs: additional resources, specific activities, change in routine, referral to other professionals, how practitioners will provide support or early intervention
- Implement** – put agreed plan into practice, share with other professional and parent/carer, record actions taken
- Review** - observe the extent to which the needs have been met, make any adjustments to the plan, engage in partnership working, opportunity for practitioner reflection.

W/B 6 <sup>th</sup> Jan – Smart Materials	W/B 13 <sup>th</sup> Jan – Mechanisms	W/B 20 <sup>th</sup> Jan- Mechanisms						
<p>While smart materials are modern materials, modern materials are not necessarily smart. To be classed as a 'smart material' they need to exhibit a physical change in response to some external stimuli. In other words, they change when you do something to them, and when you remove what is causing that change they return to their original form. You must also know about quantum tunnelling composites, hydrochromic pigments and polymorph.</p> <p><b>SHAPE MEMORY ALLOY (SMA)</b> SMA wire also called 'Nitinol', as it is a composed of nickel and titanium. Looks like ordinary wire and has many of the same properties. SMA has a memory - for example, if it is folded to form a shape and then heated above 90 degrees (centigrade) it returns to its original shape.</p>  <p><b>SMART MATERIALS THERMOCHROMIC INKS</b> Thermochromic inks change colour in response to changes in temperature. These inks have serious applications such as in the food industry. They can be used to indicate when a packaged food has reached the correct temperature in an oven. They are also used in forehead thermometers.</p>  <p><b>SMART MATERIALS - PHOTOCHROMIC INKS</b> Photochromic ink darkens, as the light level increases. Some photochromic inks change colour. In fact, it is UV light that causes the darkening of the ink, which means the ink works best in natural light. This special ink has two main applications; sunglasses and spectacles.</p> 	<p><b>W/B 13<sup>th</sup> Jan – Mechanisms</b></p> <p>Linear      Rotary      Reciprocating      Oscillating</p>  <p>Levers move and lift loads by rotating about a stationary point called a fixed pivot (or fulcrum). There are three main types:</p> <p><b>CLASS ONE</b></p>   <p>The workman uses a trolley to move the large packing case. The fulcrum is the point where the trolley is attached to the ground.</p> <p><b>CLASS TWO</b></p>   <p>The gardener uses a wheelbarrow to lift tools and garden waste. The load is in the centre of the barrow.</p> <p><b>CLASS THREE</b></p>   <p>The fisherman catches the 'fish' which becomes the load at the end of the lever.</p> <p><b>GEAR TRAIN</b></p>  <p>A compound gear is a number of gears fixed together.</p> <p><b>COMPOUND GEAR</b>      <b>IDLER GEAR</b>      <b>OUTPUT GEAR</b></p> <p>They rotate at the same speed. The gears that make up a compound gear usually differ in size and have a different number of teeth. This is useful if there is a need to speed up or slow down the final output.</p>	<p>A CAM changes the input motion, which is usually rotary motion (a rotating motion), to a reciprocating motion of the follower. They are found in many machines and toys. A CAM has two parts, the FOLLOWER and the CAM PROFILE. Diagrams one to six show a rotating cam pushing a follower up and then allowing it to slowly fall back down.</p>  <p><b>KEY PHRASES</b></p> <table border="1"> <tr> <td>ONE CYCLE</td> <td>One rotation/revolution of the cam.</td> </tr> <tr> <td>DWELL</td> <td>When the cam rotates but the follower does not rise or fall.</td> </tr> <tr> <td>THE RISE</td> <td>That part of the cam that causes the follower to rise.</td> </tr> </table> <p>There are different types of follower but they all slide or roll on the edge of the cam.</p>  <p>Cams can also come in different shapes to cause different types of movement. Such as a snail, pear and eccentric...</p> <p>You also need to know about pulley systems and can find out more information about this at: <a href="http://www.technologystudent.com/gears1/pulley1.htm">http://www.technologystudent.com/gears1/pulley1.htm</a></p>	ONE CYCLE	One rotation/revolution of the cam.	DWELL	When the cam rotates but the follower does not rise or fall.	THE RISE	That part of the cam that causes the follower to rise.
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## (Term 3-4)

W/B 27<sup>th</sup> Jan – Electronics



**Inputs:** these are switches or sensors

Switch	Uses
PTM/PTB switch	Console controller buttons, e.g. fire or jump
Reed (magnetic) switch	Window sensors on alarms, eg window opens and switch contacts open
Toggle switch	Power switches
Rocker switch	Light switches
Tilt switch	To detect if something is no longer level

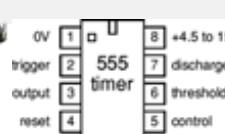
Sensors	Uses
Light dependent resistor (LDR)	Resistance changes depending on the amount of light allowing electricity to flow and turn on a circuit
Thermistor	Same as an LDR, resistance changes depending on the temperature.
Pressure Sensor	Detect the pressure of liquids or gasses

W/B 3<sup>rd</sup> Feb – Electronics

**Process:** these make decisions in the circuit

A microcontroller is an example of a SBC (single board computer) and is manufactured as an integrated circuit (IC). It can be programmed to perform different processing functions.

Examples include: 555 timer, Op Amp (Sensor circuit) and PIC chips



### Advantages

The size of a circuit can be significantly reduced. This is because programming replaces physical components. They can be reprogrammed many times. This allows changes to be made without replacing actual components. They have pins for connecting several input and output devices, adding to flexibility.

### Disadvantages

They often cost more than traditional integrated circuits. They are therefore not always the best option for simple systems. Programming software and hardware is required. This can be expensive to buy. The language of the system must be learned and this adds to training costs.

**Outputs:** is the response to the input signal and could be light, movement or sound.

Output	Symbol	Use
Lamp/ Bulb		Used to create heat or light
LED		Used as warning lights and standby
Buzzer		Make simple sound
Loud speaker		Make more complex, higher quality sound
Motor		Creates movement (fan or vibrate)

W/B 10<sup>th</sup> Feb- Composites

Composite materials are made up of different materials which are combined to improve their properties. They can be a combination of natural and synthetic materials but fall into three main categories:

- fibre-based composites
- particle-based composites
- sheet-based composites

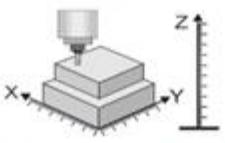
Fibre-based composites are reinforced with fibres. By mixing resin or concrete with fibres of glass or carbon we get the ability to mould complex shapes, but reinforcing them with the fibres makes them very strong.

Composite	Materials	Uses
Glass-reinforced plastic (GRP)	Glass fibres and resin	Boats, instrument cases
Carbon-reinforced plastic (CRP)	Carbon fibre and resin	Formula 1 car bodies, crash helmets, sports equipment
Glass-reinforced concrete (GRC)	Glass fibre and concrete	Street furniture, urban features

Particle-based composites are made with small particles of material. By mixing smaller particles of sand with larger particles of cement and aggregate, such as stones, we get a very strong and dense material suitable for building large structures.

Composite	Materials	Uses
Concrete	Cement, sand and aggregate	Buildings, street furniture
Cermet	Ceramic (cer) and metal (met)	Electronic components that need to operate under very hot temperatures

W/B 24 <sup>th</sup> Feb – Scales of Production	W/B 3 <sup>rd</sup> Mar – Quality Control	W/B 10 <sup>th</sup> Mar- Production Aids	
<p><b>One off production</b> - one product is made often a prototype using highly skilled workers and expensive materials</p> <p><b>Batch production</b> - A small quantity of the product is made two or more up to one hundred.</p> <p><b>Mass production</b> - A large number of the product is made on a production line. Many hundreds of the product could be made. This is often called repetitive flow production.</p> <p><b>Continuous production</b> - Many thousands of the product are made. The difference between this and mass manufacturing is that continuous production is on 24 hours a day.</p> <p><b>Just in time production</b> - The arrival of parts at just the exact time that they are required in the factory.</p>	<p>Architecture, bespoke machinery and wedding dresses are made this way</p> <p>Seasonal goods, food, newspapers and magazines are examples of this</p> <p>Examples include: cars, electronic goods and most clothing and shoes</p> <p>Very simple products that are only made using robots/ machines are made this way such as: nuts/bolts, screws, Lego, packaging and toiletries</p> <p>Construction materials and large furniture is made using this method</p>	<p><b>Regulations:</b> There are numerous organisations which take care of the public and the consumers interests. Most of these are set up by manufacturing bodies to make sure that all their members follow their voluntary code of practice. These groups give valuable direction to designers and manufacturers. The government also provides regulations by acts of parliament. One example is for Designers who need to protect their new design ideas from being copied. Copyright, patents and registered design ideas are some examples of how the designer can be protected.</p> <p><b>Legislation</b> - You are not normally required to remember all the details of all legislations but the following are worth bearing in mind when designing.</p> <p><b>The Consumer Protection Act</b> - Tries to prevent the sale of harmful or defective products.</p> <p><b>The Consumer Safety Act</b> - This allows the government to ban the sale of dangerous products.</p> <p><b>The Trade Description Act</b> - This makes it illegal to make false claims about a product.</p> <p><b>The Weights and Measures Act</b> - This makes it illegal to sell products which are underweight or short measures.</p>	<p><b>Type</b></p> <p><b>Template</b></p>  <p>These can be made from paper, card or MDF and make marking out easy to do. You draw around the shape to make sure all products are identical. Templates have to be durable so they can be used over and over again. They can also be used to check accuracy when doing quality control.</p> <p><b>Jig</b></p>  <p>Jigs are guides made from flat sheets of wood or sheet metal. They are used to make sure a work piece is put in the right place for drilling or cutting. It means that there is no need to mark out and so this speeds up production.</p> <p><b>Former</b></p>  <p>A former is a 3D object made from MDF or clay. It is used in the vacuum former to create a 3D shape. The material must be durable, so it can be used plenty of times, be heat proof so that it doesn't melt in the machine and have no undercuts so the material doesn't get stuck.</p> <p><b>Mould</b></p>  <p>A hollow space used to pour molten metal or molten plastic in to. The shape needs to be simple and smooth so that the work has a professional finish. The mould will be used many times to make products identical.</p>

W/B 17 <sup>th</sup> Mar – New Technology	W/B 24 <sup>th</sup> Mar – CAD/CAM	W/B 31 <sup>st</sup> Mar- Evaluating CAD / CAM																
<p>Automation has been developing in factories since the Industrial Revolution, with machinery being used to complete tasks previously done by humans. Automated machines are programmed to carry out a procedure multiple times, e.g. repeatedly creating the shape of a car door using a press, to improve production time. The cost of setting up machinery is high but, when they are operating, less waste is produced and running costs are lower.</p> <p><b>Robotics:</b> The use of robots is just one part of automation. The difference between robotics and automation is that robots use artificial intelligence (AI) to collect information and improve the performance of a particular procedure. Robotics has proven popular because of their ability to increase efficiency and handle harmful materials that humans can't, but they are very expensive.</p> <p><b>Specialist buildings:</b> Smart technology has improved the efficiency of buildings, with many factories using renewable energy sources to try to minimise environmental impact. Modular buildings can be erected quickly and at a low cost, and improvements in stock control mean less storage space is needed.</p> <p><b>Other advances include:</b></p> <p><b>Smart Technology</b> – where computers, sensors and sharing of data over the internet helps to improve efficiency.</p> <p><b>Tracking</b> – using barcodes and scanners to track stock levels</p> <p><b>Communication systems</b> – using email, phone and video conferencing to improve contact between human workers</p>	<p><b>COMPUTER AIDED DESIGN - CAD</b> 3D design software such as AutoCAD or Sketchup, allow the designer to draw a product in detail.</p>  <p>Products can be designed and modified quickly. CAD allows for the testing of prototypes during the design process, without the need to make it.</p> <p><b>Laser cutter:</b> engraves and cuts through material including card, MDF and acrylic</p> <p><b>3D printer:</b> builds products from melted ABS plastic which sets in to a rigid shape.</p> <p><b>CNC Embroidery machine:</b> sews designs on to fabric using images created on 2D design</p> <p><b>COMPUTER AIDED MANUFACTURE CAM</b> Once a prototype design has been produced, it can be manufactured on a CNC machine or Rapid Prototyping machine.</p>  <p>Computer Aided Manufacture (CAM) has meant that products and components can be made repeatedly to the same high standard. Accuracy of machining is consistently high and machining through CAM is much faster than machining by human control / by hand. Large quantities can be produced 24 hours a day, reducing the final cost/price.</p> <p><b>CNC</b></p> <p>This means a computer converts the design produced by Computer Aided Design software (CAD), into numbers. The numbers can be considered to be the coordinates of a graph and they control the movement of the cutter. In this way the computer controls the cutting and shaping of the material.</p>	<table border="1"> <thead> <tr> <th data-bbox="1432 258 1769 314">Advantages of CAD</th> <th data-bbox="1769 258 2106 314">Disadvantages of CAD</th> </tr> </thead> <tbody> <tr> <td data-bbox="1432 314 1769 401">Ideas can be drawn and developed accurately</td> <td data-bbox="1769 314 2106 401">Expensive to buy the computers and software</td> </tr> <tr> <td data-bbox="1432 401 1769 520">Designs can be viewed from all angles and with a range of materials</td> <td data-bbox="1769 401 2106 520">Needs a skilled workforce trained in using CAD software (costs money)</td> </tr> <tr> <td data-bbox="1432 520 1769 671">Some testing and consumer feedback can be done before costly production takes place</td> <td data-bbox="1769 520 2106 671">Sketching by hand can be quicker and work could be lost if the computer is damaged or crashes.</td> </tr> <tr> <th data-bbox="1432 679 1769 735">Advantages of CAM</th> <th data-bbox="1769 679 2106 735">Disadvantages of CAM</th> </tr> <tr> <td data-bbox="1432 735 1769 854">Fast and accurate production with no risk of injury to humans</td> <td data-bbox="1769 735 2106 854">Expensive to set up initially but no need to pay workers anymore</td> </tr> <tr> <td data-bbox="1432 854 1769 973">Machines can run constantly on repetitive tasks (identical products)</td> <td data-bbox="1769 854 2106 973">Needs a skilled workforce of engineers to maintain machinery</td> </tr> <tr> <td data-bbox="1432 973 1769 1092">No human error so no waste materials and more cost effective</td> <td data-bbox="1769 973 2106 1092">Unemployment and loss of jobs as workers are replaced by machines</td> </tr> </tbody> </table> <p><b>Efficient working:</b> It is important to ensure that companies work in an efficient way. This includes increasing the speed of production, reducing errors and reducing waste, which can be done by utilising robots or computer aided manufacture (CAM). Using quality control checks ensures that errors are quickly spotted and provides the customer with reassurance.</p>   	Advantages of CAD	Disadvantages of CAD	Ideas can be drawn and developed accurately	Expensive to buy the computers and software	Designs can be viewed from all angles and with a range of materials	Needs a skilled workforce trained in using CAD software (costs money)	Some testing and consumer feedback can be done before costly production takes place	Sketching by hand can be quicker and work could be lost if the computer is damaged or crashes.	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### PLAYWRIGHT: WILLY RUSSELL

is from a working-class family in Merseyside, Liverpool. He spent a lot of time with his mother, aunts and grandmother which enabled him to write convincing female characters. He went to a rough school but they read a lot of plays; one was about two babies switched at birth which was the stimulus for him to write Blood Brothers. He is interested in nature versus nurture. He left school at 15 with one 'O' level and worked as a hairdresser but wanted to be a teacher. So he went back to school at the age of 20, took more exams and trained to be a teacher. Within a year of teaching he was writing plays full-time.



## WRITTEN EXAM - SET TEXT: BLOOD BROTHERS



### FORM & GENRE:

Blood Brothers is a musical. The songs are used to move the action along and reveal a character's emotions. Some of the songs act as soliloquies, giving an insight into the character's thoughts. They also contribute to the atmosphere on stage.

### CHARACTERISTICS OF A PLAY: GENRE    STYLE    PLOT    CHARACTERS

#### CONTEXT:

- » The time period in which the play is set.
- » The location of the play.
- » The political or social concerns expressed in the play.
- » The fashions of the time, the music, entertainment and other cultural factors of the time.
- » The backgrounds of the characters.



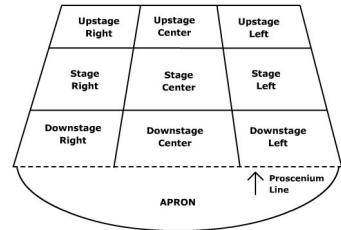
### KEY WORDS

INTERPRETATION, CLIMAX, PROTAGONIST, ANTAGONIST  
CHORAL CHARACTER, PROPS, COMPOSITE SET, TRUCK, MOTIVATION, SUBTEXT, VOICE, PHYSICALITY, PROXEMICS, COSTUME, SET, LIGHTING, SOUND



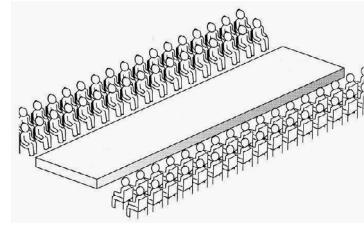
### Stage Positioning:

Always remember staging by the stage being on a slant. Upstage towards the back, centre in middle and downstage towards the audience. It is then the actors left and right.



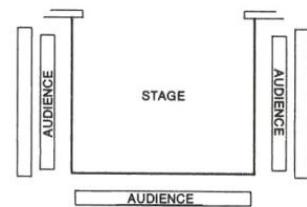
### Traverse:

Traverse staging is set out like a catwalk with the audience on the left and right of the stage.



### Thrust:

In *Thrust* staging the audience is seated around three sides.



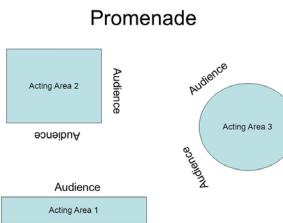
### In the Round:

This involves the actors performing in the middle and the audience sat around the stage in a circle.



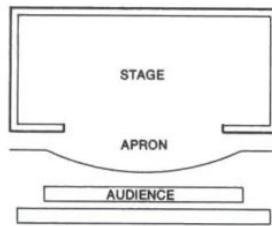
### Promenade:

in which audience members stand and walk about watching the action happening among them, following the performers around the performance space.



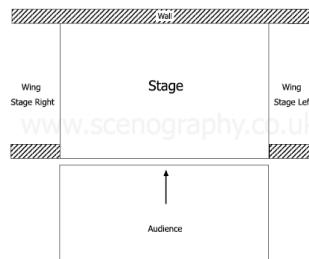
### Proscenium Arch:

in which the audience sit in rows facing the stage.



### End on:

is where the stage space is on one side of the room and the audience sit on the opposite side.



### Black Box:

is an open space consisting of four walls, a floor and a ceiling that are all painted black.



### Roles in a Theatre

#### Director

A Director is responsible for the overall creative vision of the show. They have to bring the different elements of the production together to produce a cohesive final production.

#### Stage Manager

A Stage Manager is responsible for backstage during a production. They are responsible for organisational aspects, such as setting props and calling the show.

#### Theatre Manager

A Theatre Manager is responsible for the Front of House team.

#### Producer

The Producer usually initiates production - finding the script and starting the process.

#### Front of House

They are in charge of collecting tickets and selling merchandise.

#### Theatre Technicians

They may be involved in rigging the lighting, sound equipment and set. They may also operate technical equipment during a show, controlling lighting, sound or other aspects of the set.

#### Costume Designer

A Costume Designer is responsible for designing the costume, hair and make-up for a production.

#### Performer

A Performer might be an actor, singer or dancer whose job is to perform within a production.



## 13 Fundamentals of Standards

Person centred care	<b>Healthcare</b> often refers to medical needs and <b>physiological</b> well being of the person and includes their physical and mental health.			
Dignity and respect				
Consent	<b>Social care</b> is more focused on the <b>emotional and social wellbeing</b> of the individual and includes a much broader focus such as practical support.			
Safety				
Safeguarding from abuse	<p align="center"><b>Purposes of health and social care provision:</b></p> <ol style="list-style-type: none"> <li>1. Provide a standard of care to meet the legislative and regulatory requirements.</li> <li>2. Provide types of intervention specific to the individuals needs and preferences.</li> <li>3. Provide individualised care to meet long-and short-term needs and preferences.</li> </ol>			
Food and drink				
Premises and equipment				
Complaints				
Good governance				
Staffing				
Fit and proper staff				
Duty of candour				
Display of ratings				
	<b>Types of provision</b>	<b>Health Services</b>	<b>Social Services</b>	
	<u>Statutory</u> - government funded <u>Private</u> - profit making services <u>Voluntary</u> - charities, non profit <u>Informal</u> - personal relationship, unpaid care	Hospitals Ambulance GP Dentists Pharmacy - POM; Pharmacy; GSL	Residential Community Respite Foster	



## Practitioners & their Roles in HSC:

- Nurse: Collaborates in care planning, monitors health status, administers medication, and supports holistic needs.
- Doctor: Diagnoses and treats physical and mental health conditions in hospitals or as General Practitioners (GPs).
- Paramedic: Responds to community emergency calls, assesses individuals, and provides life-saving medical interventions.
- Physiotherapist: Assesses and supports individuals with tailored exercise programs, manual therapy, and advice for injury, illness, or disability.
- Occupational Therapist: Assesses and supports individuals' physical, psychological, social, and environmental needs, providing adaptations.
- Dentist: Assesses oral health and provides dental treatments.
- Pharmacist: Dispenses medication and offers advice on individual health issues.

<b>Allied Health Professionals</b>	<p><b>Other Key Terms within Health &amp; Social Care</b></p> <p>Allied Health Professionals - Practitioners who are not doctors, nurses or dentists. Examples include paramedics, physiotherapists, occupational therapists and dieticians.</p> <p>Dietitian - assesses and provides nutritional advice to promote a balanced diet.</p>
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<u>6C's</u> <p>Care Compassion Courage Commitment Competence Communication</p>	<u>7 Care Values</u> <p>Safeguarding Rights Confidentiality Dignity Independence Respect Duty of Care</p>	<p><b>Ambulance Call Out Categories</b></p> <p>Category 1: Life threatening. 7 minutes. Life threatening injuries, cardiac arrest, serious allergic reaction;</p> <p>Category 2: Emergency calls. 18 minutes. Stroke, difficulty breathing, chest pain;</p> <p>Category 3: Urgent. 120 minutes. Late stages of labour, non- severe burns, diabetes; abdominal pain can include patients being treated at home;</p> <p>Category 4: Less urgent calls. 180 minutes. Diarrhoea and vomiting, back pain, urine infections. Might be referred to a GP or pharmacist.</p>
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## Legislations in Health & Social Care

- Equality Act (2010): Defines protected characteristics including age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation.
- Health and Safety at Work etc. Act (1974): Defines responsibilities for maintaining health and safety at work.
- Data Protection Act (2018): Defines data protection principles requiring fair, lawful, and transparent handling and processing of personal information.
- Health and Social Care Act (2012): Defines the planning, delivery, and monitoring of healthcare services.
- Care Act (2014): Defines duties regarding the assessment of needs and eligibility for publicly funded care and support.

## The role of regulatory and inspection bodies

- **Care Quality Commission (CQC):** Regulates health and adult social care services
- **Ofsted:** Regulates education, children's services and schools
- **The Health and Care Professions Council (HCPC):** Register of health and care professionals
- **Nursing and Midwifery Council (NMC):** Register of those who can practice nursing and midwifery
- **Social Work England:** Register of those who can practice social work

## Roles & Responsibilities of the practitioner

- Understand the related legislation, policies and procedures
- Adhere to the underpinning policies and procedures
  - Work within own professional boundaries
  - Understand how to escalate any concerns
- Allow for access to quality health and social care services



## Life Stages Across The Human Lifespan

Infancy  
(0-2 Years)

Childhood  
(3-10 Years)

Adolescence  
(11-17 Years)

Early Adulthood  
(18-29 Years)

Middle Adulthood  
(30-60 Years)

Late Adulthood  
(60+ Years)

### Expected milestones of growth and development

Some changes are more significant than others and these are called milestones.

**Milestones** can sometimes be referred to as 'norms' and can help show what most children can do at particular ages.

\*However, all individuals will develop in their own unique way and there will be lots of differences.

**Gross motor skills** are movements that use large muscle groups such as the head and torso. For example, running and jumping.

**Fine motor skills** are precise and sophisticated movements that require the co-ordination of small muscle groups such as those in the fingers, for example gripping an object.

### Growth and Development

**Growth** = refers to an increase in physical size (mass and height). Growth is measurable.

**Development** = the emergence and increase in sophistication of skills, abilities and emotions. e.g. making new friends is social development, bonding is emotional development.

*To measure growth in infancy, 3 measurements are used:*

- Weight
- Length
- Head circumference

## AREAS OF DEVELOPMENT

**PHYSICAL** - The advancement and control of the individual's bodily movements and functions

**EMOTIONAL** - The individual's ability to develop, manage and express feelings and show empathy for others

**COGNITIVE** - The development of language and communication

**SOCIAL** - The individual's ability to build relationships and interact with others



## Maslow's Hierarchy of Needs

Self-actualisation and realisation of the individual's full potential is when we have achieved all our goals and have reached our full potential.

Esteem, dignity and respect from others gives us a sense of self purpose and help us achieve positive self-concept.

Social needs (love and belonging) give us a sense of belonging.

Safety, security and control in the individual's life helps to keep us safe and secure.

Physiological and biological requirements for human survival are basic needs that keep us alive and functioning.

## Specific Disabilities & Conditions

Alzheimer's disease is a progressive neurological disorder that affects the brain, leading to memory loss, impaired thinking, and behavioral changes. It is the most common form of dementia among older adults.

Crohn's disease is a chronic inflammatory condition of the digestive tract, causing abdominal pain, diarrhea, weight loss, and fatigue.

Osteoporosis is a bone disease characterized by weak and brittle bones, increasing the risk of fractures.

Obesity refers to having an excessive amount of body fat, which can lead to various health problems such as heart disease, diabetes, and joint issues.

Spina bifida is a congenital condition where the spinal cord or its covering does not fully develop, potentially causing paralysis and other neurological implications.



<u>Types of Referrals</u>	<u>Barriers in Health and Social Care</u>
<p><b>Self-referral:</b> An individual accesses services themselves. Might be making an appointment or attending a walk in.</p> <p><b>Professional referral:</b> A health and social care professional refers someone to another. Might be referred to a specific professional or to a service.</p>	<p>The barriers in health and social care are physical barriers, psychological barriers, financial barriers, geographical barriers, cultural/language barriers and resource barriers.</p>
<p><b>Third party referral:</b> A family member or friend accesses services on someone's behalf.</p>	<p><b>Barriers Link to NHS Website</b>  <a href="https://www.england.nhs.uk/wp-content/uploads/2019/04/breaking-down-barriers-to-better-health-and-care-march19.pdf">https://www.england.nhs.uk/wp-content/uploads/2019/04/breaking-down-barriers-to-better-health-and-care-march19.pdf</a></p>
<p><b>Multicultural society</b> - Where many cultures exist together.</p> <p><b>Respect</b> - All individuals who access a health and social care service should be treated with respect. This includes ensuring that the location is as accessible as possible for them.</p>	<p><b>A subculture</b> - A culture within a culture. One culture can have many subcultures within it.</p> <p><b>Autonomy</b> - Where the individual has self-rule. A key aspect of accessibility is that it allows the individual autonomy.</p>
<p><b><u>Examples of promoting autonomy and encouraging respect</u></b></p> <p>1 - A primary school has a new outdoor play area which is wheelchair-friendly.</p> <p>2 - A residential care home has a hoist for getting into and out of the bath. It has a remote control which can be used by the resident.</p>	



## **Partnerships Working in Health & Social Care**

The Health and Social Care Act (2012) defines the planning, delivering, and monitoring of healthcare services.

The Care Act (2014) defines duties in relation to assessment of needs and their eligibility for publicly funded care and support.

### **Potential barriers to partnership working and strategies to overcome barriers. Understand barriers to partnership working and strategies to overcome the barriers:**

- barriers:
  - communication:
    - level of understanding
    - level of trust
    - assumptions
  - time management:
    - ineffective time management skills
    - conflicts in priorities
    - workload
- strategies to overcome the barriers:
  - communication:
    - agree shared goals
    - be inclusive
    - avoid use of jargon
    - build respect and confidence
    - acknowledge and understand viewpoints of others
  - time management:
    - establish practitioners' commitment and availability
    - select agreed dates, times and venues
    - use appropriate mode of communication

### **Partnership Services**

Health services – To meet the medical or rehabilitation care needs of an individual.

Housing services – To ensure that individuals have suitable accommodation to meet their care needs.

Transport services – To ensure individuals have the mobility to access other services to meet their care needs.

Leisure services – To ensure individuals have access to activities that will support their wellbeing and mental health needs.

Legal services – To ensure individuals have advocates and support to access the services that they need.



## Advantages of person centred approach (people)

- Increased self-esteem and confidence
  - Better relationships
- Individuals being more in control of their care
  - build trusts between the service user and health care practitioner
- Meets all the needs and preferences and gives support
  - Promote independence
  - Empowerment

## Challenges (resources)

- Increase in cost of care
- Strain on resources
- Individuals confused by options (lack of knowledge)
- Extended recover time
- Not making the best choice and conflict of interest

## Person-Centred Practice

Person-centred practice is care which is respectful, and focused on the wishes and needs of the individual. When practice is person-centred, it respects the values and beliefs of the person receiving it.

### Key Words

Purpose  
Implementing  
Holistic  
Strategies  
Assessment

### A Care Plan

A record that outlines the standardised care and support required to meet the individual's holistic needs and preferences with reference to Maslow's hierarchy of needs

Holistic needs:

Physical, Cognitive, Social & Emotional



**Standards and ratings:** You will need to be able to know the importance of standards and ratings within the hospitality and catering industry, they are hotel and guest house standards, and restaurant standards.

## Hotel and guest house standards

Hotels and guest houses standards are awarded and given star ratings. You should know what criteria is needed to be met for an establishment to receive each star rating.

Star rating 1 = Basic and acceptable accommodation and facilities. Simple rooms with no room service offered.

Star rating 2 = Average accommodation and facilities, a small establishment, and would not offer room service or have a restaurant.

Star rating 3 = Good accommodation and facilities. One restaurant in the establishment, room service available between certain hours, and Wi-Fi in selected areas are provided. The establishment could have a pool and gym.

Star rating 4 = Very good accommodation and facilities. Large hotel & reception area of a very good standard. Certain hours of room service, with a swimming pool and valet parking offered.

Star rating 5 = Excellent standard of accommodation, facilities, and cuisine. Offer valet parking, 24 hr room service, spa, swimming pool, gym, and concierge service.

## Restaurant standards

Restaurant standards have three main possible awards or ratings that you should know. They are listed below:

### AA Rosette award

Ratings between one and five rosettes could be awarded based on the following:

- different types and variety of foods offered
- quality of the ingredients used
- where the ingredients are sourced
- how the food is cooked, presented and tastes
- skill level and techniques used as well as the creativity of the chef.



<https://www.stirkhouse.co.uk/about-us/awards/attachment/award-rosette>

## Michelin star

A rating between one and three Michelin stars could be awarded based on the following:

- quality of ingredients used
- cooking and presentation techniques
- taste of the dishes
- standard of the cuisine
- value for money.



<https://guide.michelin.com/us/en/california/to-the-stars-and-beyond>

## Good food guide

A rating between one and 10 could be awarded based on the following:

- cooking skills
- quality of ingredients
- techniques and cooking skills shown.



### Hospitality and catering providers

You must understand, be able to name, and explain the two different provisions in hospitality and catering.

**Commercial:** the business aims to **make profit** from the hospitality and catering provision that they provide.

**Non-commercial:** the service provider **doesn't aim** to make a profit from the service they provide.



#### Commercial (residential)

**Commercial (residential):** meaning the hospitality and catering provision aims to create a profit from the service they provide, but also offers accommodation.

For example:

- hotels, motels & hostels
- B&B, guest houses and Airbnb
- holiday parks, lodges, pods, and cabins
- campsites and caravan parks.

#### Non-commercial (residential)

**Non-commercial (residential):** the hospitality and catering provision offers accommodation but does not aim to make a profit from the service they provide.

For example:

- hospitals, hospices, and care homes
- armed forces
- prisons
- boarding schools, colleges, and university residences.

#### Commercial (non-residential)

**Commercial (non-residential):** catering establishments that aim to make a profit from their service, but no accommodation is provided.

For example:

- restaurants and bistros
- cafes, tea rooms and coffee shops
- takeaways
- fast food outlets
- public houses and bars
- airlines, cruise ships, long distance trains
- pop up restaurants
- food and drink provided by stadiums, concert halls and tourist attractions
- mobile food vans and street food trucks
- vending machines.

#### Non-commercial (non-residential)

**Non-commercial (non-residential):** catering establishments with no accommodation provided and don't aim to make a profit from their service.

For example:

- schools, colleges, and universities
- meals on wheels
- canteen in working establishments (subsidised)
- charity run food providers.





### Types of service in commercial and non-commercial provision

You need to be able to understand and know the different types of service within commercial and non-commercial provision. They are split into two main categories of food service and residential service.



#### Food service

The different types of food services in the catering sector are listed below. You should know the meaning of each one and be able to provide examples. For instance;

##### Table service

- Plate: the food is put on plates in the kitchen and served by waiting staff. Good portion control and food presentation consistent.
- Silver: a waiter will transfer food from a serving dish to the customer's plate using a silver spoon and fork at their table.
- Banquet: a range of foods suitable for large catered events such as weddings, parties, or award ceremonies.
- Family style: the food is placed on serving bowls on the customer's table for customers to share between them.
- Gueridon: is served from a trolley to the customer's table, the food is then cooked and/or finished and presented in front of the customer. Creates an atmosphere of sophistication and entertainment.

##### Counter service

- Cafeteria: all types of food and drink are shown on a long counter for customers to move along with a tray for them to choose what they want to eat.
- Fast food: the food and drink is displayed on a menu behind the counter, often with pictures. Quick, simple, and usually served with disposable packaging.
- Buffet: a range of foods served on a big serving table where customers walk up to collect their plate and help themselves to food and drink. The food can be hot or cold, and some items could be served by waiting staff.

##### Personal service

- Tray or trolley: the meals are served on trays from a trolley and customers sometimes order items in advance.
- Home delivery: the customer's order is made over the phone or online, and is then delivered by the business to their address.
- Takeaway: food that's cooked by the business onsite and then eaten elsewhere.

#### Residential service

Listed below are the different types of residential types of service in the hospitality and catering sector. You should know the different types of service offered in various hospitality provisions.

##### Rooms:

- single/ double/ king/ family
- suite (en-suite bath/ shower room, shared facilities).

##### Refreshments:

- breakfast/ lunch/ evening meal
- 24-hour room service/ restaurant available.

##### Leisure facilities:

- spa
- gym
- swimming pool.

##### Conference and function facilities:

- large rooms
- overhead projector and computer
- pens and paper provided
- refreshments available.





### Types of employment roles and responsibilities within the industry

There are four main areas within the industry that you should know the roles and responsibilities within. They are listed below:

#### Front of house

- Front of house manager: oversees all staff at the restaurant, provides training, hiring of staff, and ensures good customer service.
- Head waiter: oversees the waiting staff of the restaurant in high-end eating establishments.
- Waiting staff: greets customers, shows them their table, takes food and drink orders from customers, and serves them their order. Makes sure customers' needs are met, and that the food order is made correctly.
- Concierge: advises and helps customers with trips and tourist attractions. Books taxis for customers and parks customer cars.
- Receptionist: takes bookings, deals with questions and complaints from customers, checks-in customers, takes payment, and provides room keys.
- Maître d'hôte: oversees the service of food and drinks to customers. They greet customers, check bookings, reservations, and supervise waiting staff.

#### Kitchen brigade

- Executive chef: in charge of the whole kitchen, developing menus and overseeing the rest of the staff.
- Sous-Chef: the deputy in the kitchen and is in charge when the executive chef isn't available.
- Chef de partie: in charge of a specific area in the kitchen.
- Commis chef: learning different skills in all areas of the kitchen. Helps every chef in the kitchen.
- Pastry chef: prepares all desserts, pastry dishes and bakes.
- Kitchen assistant: helps with the peeling, chopping, washing, cutting of ingredients, and helps washing dishes and stored correctly.
- Apprentice: an individual in training in the kitchen and helps a chef prepare and cook dishes.
- Kitchen porter/ plongeur: washes the dishes and other cleaning duties.

#### Housekeeping

- Chambermaid: cleans guests' rooms when they leave, and restocks products that have been used, they also provide new bedding and towels.
- Cleaner: cleans hallways and the public areas of the establishment.
- Maintenance: repairs and maintains the establishment's machines and equipment, such as heating and air conditioning. These responsibilities could also include painting, flooring repair or electrical repair.
- Caretaker: carries out the day to day maintenance of the establishment.



#### Management

- Food and beverage: responsible for the provision of food and drink in the establishment which will include breakfast, lunch, dinner, and conferences.
- Housekeeping: ensuring laundering of bed linen & towels, ordering of cleaning products and overseeing housekeeping staff duties.
- Marketing: promotes events and offers to increase custom at the establishment, and is responsible for the revenue of the business.

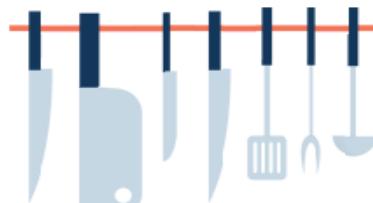




### Types of employment contracts and working hours

You need to know the following types of employment contracts and working hours.

- **Casual:** this type of contact could be provided through an agency and used to cover employees that are absent from work due to illness. There is no sick pay or holiday entitlement with this type of employment.
- **Full time (permanent):** working hours including start and finishing times are fixed and stated in this type of contract. A contract of this nature allows the employee to have sick pay and holiday entitlement.
- **Part-time (permanent):** working hours mean that the employee works on certain days of the week. Work times are stated in the contract, including the starting and finishing times that are fixed in this type of contract. The employee has sick pay and holiday entitlement in this type of contact.
- **Seasonal:** this type of contract is used when a business needs more staff due to busy times throughout the year, such as the Christmas period. The contract will state for the employee to work for a specific time frame only. Also, the contract would not expect further or regular work after the contact is complete.
- **Zero hours contract:** this type of contact is chosen between the employer and the employee. This means that the employee can sign an agreement to be available for work when the employer needs staff. No number of days or hours is stated in the contract and the employer doesn't require to ask the employee to work, and neither does the employee have to accept the work offered. No sick pay or holiday entitlement is offered for this type of contract.



### Pay and benefits in the industry

The following pay and benefits are what you should be aware of in the industry.

- **A salary:** this type of pay is a fixed amount of money paid by the employer monthly, but is often shown as an annual sum on the contract.
- **Holiday entitlement:** employees are entitled to 28 days paid a year. Part-time contracts are entitled less depending on their contract hours.
- **Pension:** on retirement age, an employee qualifies for a pension contribution by the employer and the government.
- **Sickness pay:** money paid to the employee with certain contracts when they are unable to go to work due to illness.
- **Rates of pay:** national minimum wage should lawfully be offered to all employees over 18 years of age. This rate is per hour and is reviewed each year by the government.
- **Tips:** money given to an employee as a 'thank you' reward for good service from the customer.
- **Bonus and rewards:** given from an employer to the employee as a way of rewarding all the hard work shown from the employee throughout the year, and helping make the business a success. Also known as remuneration.

### Working hours

The working hours directive in the UK states that employees on average cannot work more than 48 hours which is worked out over a period of 17 weeks. Employees can choose not to follow this and work more hours if they want to.

People under the age of 18 cannot work more than eight hours a day and 40 hours a week.

Employees that work six hours or more a day must have a break of 20 minutes, and have the right to have at least one day off every week.

# Level 1/2 Hospitality and Catering: Unit 1-1.3.1 -

## Health and safety in hospitality and catering provisions



### Control of Substances Hazardous to Health Regulations (COSHH) 2022

What employers need to do by law	What paid employees need to do
Control substances that are dangerous to health.	Attend all training sessions regarding COSHH.
Provide correct storage for those substances and appropriate training for staff.	Follow instructions carefully when using the substances.
Some examples of substances that are dangerous to health include cleaning products, gases, powders & dust, fumes, vapours of cleaning products and biological agents.	Know the different types of symbols used to know different types of substances and how they can harm users and others when used incorrectly.

### Report of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013

What employers need to do by law	What paid employees need to do
Inform the Health and Safety Executive (HSE) of any accidents, dangerous events, injuries or diseases that happen in the workplace.	Report any concerns of health and safety matters to the employer immediately. If nothing is resolved, then inform the HSE.
Keep a record of any injuries, dangerous events or diseases that happen in the workplace.	Record any injury in the accident report book.

### Health and Safety at Work Act 1974 (HASAWA)

What employers need to do by law	What paid employees need to do
Protect the health, wellbeing and safety of employees, customers and others.	Take reasonable care of their own health and safety and the health and safety of others.
Review and assess the risks that could cause injuries.	Follow instructions from the employer and inform them of any faulty equipment.
Provide training for workers to deal with the risks.	Attend health and safety training sessions.
Inform staff of the risks in the workplace.	Not to misuse equipment.

### Manual Handling Operations Regulations 1992

What employers need to do by law	What paid employees need to do
Provide training for staff.	Ask for help if needed.
Assess and review any lifting and carrying activities that cannot be avoided.	Squat with feet either side of the item. Keep back straight as you start to lift. Keep the item close to your body whilst walking. Make sure you can see where you're going.
Store heavy equipment on the floor or on low shelves.	
Provide lifting and carrying equipment where possible.	

### Personal Protective Equipment at Work Regulations (PPER) 1992

What employers need to do by law	What paid employees need to do
Provide PPE e.g. masks, hats, glasses and protective clothes.	Attend training and wear PPE such as chef's jacket, protective footwear and gloves when using cleaning chemicals.
Provide signs to remind employees to wear PPE.	
Provide quality PPE and ensure that it is stored correctly.	

Risks to health and security including the level of risk (low, medium, high) in relation to employers, employees, suppliers and customers

Review and assess level of risks in the workplace e.g. slips, trips, falls, burns etc by completing a risk assessment to avoid from happening.



### Hazard Analysis and Critical Control Points (HACCP)

Every food business lawfully needs to ensure the health and safety of customers whilst visiting their establishment. To ensure this, they need to take reasonable measures to avoid risks to health. HACCP is a food safety management system which is used in businesses to ensure dangers and risks are noted and how to avoid them.

#### All food businesses are required to:

- assess and review food safety risks
- identify critical control points to reduce or remove the risk from happening
- ensure that procedures are followed by all members of staff
- keep records as evidence to show that the procedures in place are working.

#### HACCP table

Here is an example of a HACCP table – it states some risks to food safety and some control points.

Hazard	Analysis	Critical Control Point
Receipt of food	Food items damaged when delivered / perishable food items are at room temperature / frozen food that is thawed on delivery.	Check that the temperature of high-risk foods are between 0°C and 5°C and frozen are between -18°C and -22°C. Refuse any items that are not up to standard.
Food storage (dried/chilled/frozen)	Food poisoning / cross contamination / named food hazards / stored incorrectly or incorrect temperature / out of date foods.	Keep high-risk foods on correct shelf in fridge. Stock rotation – FIFO. Log temperatures regularly.
Food preparation	Growth of food poisoning in food preparation area / cross contamination of ready to eat and high-risk foods / using out of date food.	Use colour coded chopping boards. Wash hands to prevent cross-contamination. Check dates of food regularly. Mark dates on containers.
Cooking foods	Contamination of physical / microbiological and chemical such as hair, bleach, blood etc. High risk foods may not be cooked properly.	Good personal hygiene and wearing no jewellery. Use a food probe to check core temperature is 75°C. Surface area & equipment cleaned properly.
Serving food	Hot foods not being held at correct temperature / foods being held too long and risk of food poisoning. Physical / cross-contamination from servers.	Keep food hot at 63°C for no more than 2 hours. Make sure staff serve with colour coded tongs or different spoons to handle food. Cold food served at 5°C or below. Food covered when needed.



## Contributing factors

The hospitality and catering sector is very competitive, and many businesses fail in the first year of operation. There are many factors that must be managed carefully for hospitality and catering businesses to make a profit and continue to operate in the long term.

### Basic costs

**Labour:** These costs include employee wages, National Insurance contributions and pension contributions.

**Material:** These costs include decoration, furnishings, kitchen and dining equipment, ingredients, printing and health and safety equipment.

**Overheads:** These costs include rent, rates, gas and electricity, insurance, licensing, training and maintenance.

### Economy

The value of the pound (£) can affect the hospitality and catering sector. If the economy is good, people will be willing to spend more. If the economy is weak (recession), people may decide that eating out or going on holiday is a luxury and will spend less.

**VAT (Value Added Tax)** is added to the final cost of goods and services offered in the hospitality and catering sector. The money from VAT goes to the government to pay for services everyone uses for example the NHS.

### Environmental impact

Running a hospitality or catering provision uses a lot of resources. Businesses are encouraged to **reduce, reuse, and recycle**. Energy efficient equipment such as low energy light bulbs can save a business money. Using local and seasonal ingredients reduces the amount of CO<sub>2</sub> released into the atmosphere during transport. All waste should be separated and recycled or composted when possible.

### Profit

**Gross Profit:** The difference between how much a menu item costs to make and how much it sells for. Ingredient costs should not be more than 30% of the gross profit. If the ingredient cost for a chocolate brownie dessert is £1.50 and the menu price is £4.50, the gross profit is £3.00.

$$\text{Gross Profit \%} = (3.00 + 4.50) \times 100 = 66.6\%$$

**Net Profit** = What is left from the gross profit once all costs (as listed above) are covered.

### New technology

New technologies have benefitted the sector in positive ways. These include:

- **cashless systems** such as contactless cards and mobile payment apps
- **digital systems** such as online booking/ordering and key cards
- **office software** such as stock ordering systems.

### Media

The hospitality and catering sector is very competitive, so most businesses try to make good use of the media to advertise. Most businesses will have their own **website**, which customers can use to view menus and make bookings.

- **Print Media:** Ads in magazines and newspapers, flyers and money-off vouchers.
- **Broadcast media:** Television, radio and online ads.
- **Social media:** Customer feedback and reviews.

Consumers are increasingly using smartphones to book, order, pay and review.



### Operational requirements

To run a successful hospitality and catering business, it is important that the front of house is welcoming to all customers. A logical layout and workflow will mean that the customers will be able to enjoy organised, efficient service.

In a catering establishment such as a café, the front of house is where the customers are served.

In a residential establishment such as a hotel, the front of house is where guests are received before checking in to their room.

Catering and residential establishments have common front of house areas, which help to ensure a smooth operation of the business.

### Front of house dress code

The front of house dress creates a first impression. In some establishments a **uniform** may be worn. In other establishments, employees may be required to wear colours such as black and white. In addition:

- clothing must be clean and ironed
- if worn, jewellery, perfume and make-up must be minimal
- personal hygiene must be maintained
- name badges may be required.

### Restaurant workflow

The workflow should be organised so that orders can be filled, and food can be passed from the kitchen as quickly as possible.

**Reception:** Guests are greeted and shown to their seats in the dining area.

**Seating/dining area:** In a large restaurant, this area is divided into **stations**. Each station is managed by a waitperson.

**Counter service:** Food is on display for customers to choose and pay at the end. Some restaurants also offer seated counter service.

**Bar:** An area for socialising or eating in a less formal space.

**Equipment station:** Small items such as cutlery and serviettes and food items such as condiments should be available to wait staff.

**Toilets:** Customer toilets should be clean and welcoming.

**Safety Equipment:** First aid boxes and fire extinguishers must be easily accessed.

### Hotel workflow

The workflow of a hotel should be organised so that guests can be checked in as quickly as possible.

**Reception:** Guests are checked in and receive keys/key cards for their room.

**Lobby/waiting area:** This area should have comfortable seating for the guests. Drinks may be available in the lobby.

**Stairs/Lifts:** These provide access to rooms and other facilities.

**Toilets:** Customer toilets should be clean and welcoming.

### Administration and documents

Businesses may employ an administrator who keeps track of:

- staff employment and training records
- stock orders, delivery records and invoices
- health and safety documents
- financial information
- customer feedback
- advertising.



## Kitchen equipment

It is important that a business invests in good quality kitchen equipment to produce food safely. Even though good quality equipment is expensive, for example stainless steel pots and pans, in the long run they will pay for themselves as they should not need to be replaced often. Good quality electrical equipment will cost less to run, which will also save money and increase profits.

### Large equipment

<b>Storage:</b>	walk-in fridge, freezer, blast chiller, glass chiller.
<b>Preparation:</b>	floor standing food mixer.
<b>Cooking:</b>	conventional oven, deep fat fryer, hot water urn, standing <i>bain-marie</i> , hot plate/griddle, steamer, grill/salamander.
<b>Cleaning:</b>	pass-through dishwasher, glass washer.

### Mechanical equipment

<b>Preparation:</b>	weighing scales, electric whisk, food processor, blender, mincer, meat slicer, vegetable peeler, juicer, ice cream maker.
<b>Cooking:</b>	temperature probes.
<b>Specialist equipment:</b>	conveyor toaster, panini maker, coffee maker, pizza oven, <i>sous vide</i> , pasta maker.

### Small equipment

<b>Preparation:</b>	mixing bowls, measuring jugs and spoons, whisks, spatulas, sieves, knives, chopping boards, zester, juicer, piping bags and tips, graters.
<b>Cooking:</b>	pots and pans, baking dishes, baking trays, tongs, colanders.
<b>Serving:</b>	plates, bowls, glassware.

### Cleaning and safety materials and equipment

<b>Cleaning:</b>	detergents, cleaning chemicals, scouring pads, cloths, mops, dustpan and brush, buckets, recycling and waste bags and bins.
<b>Preparation:</b>	date labels for food storage, foil, baking paper.
<b>Safety:</b>	fire extinguisher/blanket, smoke/CO <sub>2</sub> alarm, first aid box, oven gloves.



## Operational requirements

To run a successful hospitality and catering business, it is important that the back of house is well designed to allow safe working conditions for the kitchen staff. A good workflow also allows the safe movement of front of house staff between the kitchen and dining room so that customers enjoy efficient food service.

### Kitchen workflow

<b>Delivery area</b>	Located at the kitchen entrance. Deliveries are checked against the order and temperatures of high-risk foods are recorded.
<b>Storage area</b>	Cool area: contains fridges and freezers for storing high-risk foods, as well as space for storing fresh fruit and vegetables. Dry area: for storing canned and dry goods.
<b>Staffing area</b>	A separate area where employees can change into work clothing. Staff toilets and hand washing facilities are provided. This area may also be used as a breaktime lounge.
<b>Preparation area</b>	A large kitchen will have separate areas for the preparation of meat and poultry, fish, fruits and vegetables and pastries and desserts.
<b>Cooking area</b>	A large kitchen will have separate cooking areas for hot wet foods such as soups, sauces and steamed vegetables and a dry cooking area for roasting, baking, grilling and frying.
<b>Serving area</b>	A large kitchen will have separate areas for plating and presenting hot and cold foods. Waiters will collect orders from "the pass" to deliver to customers in the restaurant.
<b>Cleaning area</b>	This area should be separate from the main kitchen. Dirty crockery and cutlery as well as pots and pans from the kitchen are cleaned and stored in this area.
<b>Waste area</b>	This area should be separate from the main kitchen. Food waste and recyclable and non-recyclable waste is sorted and then disposed in the correct bins, which should be located outside.

### Back of house dress code

The traditional chef's uniform is designed to show authority in the kitchen. Known as "chef's whites", they come in many colours. Key uniform items are: a long-sleeved, double-breasted jacket, long trousers, head covering, apron, and non-slip, toe-protected shoes. The clothing and shoes protect the wearer from injury while the head covering protects the food from hair and sweat.



### Food related causes of ill health

Ill health could be caused by any of the following:

- **bacteria**
- **allergies**
- **intolerances**
- **chemicals** such as:
  - detergent and bleach
  - pesticides and fertilisers.

### Intolerances

Some people feel unwell when they eat certain foods. Common foods that cause intolerance include:

- milk (lactose)
- cereals (gluten)
- artificial sweeteners (Aspartame)
- flavour enhancers (MSG).

### Food poisoning bacteria

The main causes of food poisoning bacteria are:

- **Bacillus cereus**: found in reheated rice and other starchy foods.
- **Campylobacter**: found in raw and undercooked poultry and meat and unpasteurised milk.
- **Clostridium perfringens**: found in human and animal intestines and raw poultry and meat.
- **E-coli**: found in raw meat, especially mince.
- **Listeria**: found in polluted water and unwashed fruit and vegetables.
- **Salmonella**: found in raw meat, poultry and eggs.
- **Staphylococcus aureus**: found in human nose and mouth.

### Food and the law

Food can cause ill-health if it is stored, prepared and/or cooked incorrectly or if a person unknowingly eats a food that they are allergic or intolerant to. All hospitality and catering provision need to follow laws that ensure food is safe to eat. They are:

- **Food Labelling Regulations (2006)**: A label must show all ingredients including allergens, how to store and prepare the food, where it came from, the weight of the food and a use-by or best-before date.
- **Food Safety (General Food Hygiene Regulations) 1995**: This law makes sure that anyone who handles food - from field to plate – does so in a safe and hygienic way. The **HACCP** system is used throughout the hospitality and catering sector.
- **Food Safety Act 1990**: This law makes sure that the food people eat is safe to eat, contains ingredients fit for human consumption and is labelled truthfully.

### Food allergies

An allergy is a reaction to something found in food. In the case of a severe allergy, the reaction can lead to death.

Common allergens include:

Cereals	Eggs	Seeds
Soya	Fish and shellfish	Strawberries
Peanuts	Wheat	Milk and dairy
Celery	Tree nuts	Mustard



### Symptoms and signs of food-induced ill-health:

An "upset tummy" is a familiar symptom for someone who thinks they might have food poisoning; this is known as a non-visible symptom. There are many other signs and symptoms that could show that a person might be suffering from ill-health due to the food they have eaten. Some of the symptoms can be seen (visible symptoms) such as a rash. It is important to be able to recognise visible and non-visible symptoms to help someone suffering from food-induced ill-health.

#### Visible symptoms

**Visible** symptoms of food poisoning, chemical poisoning, allergic reaction and food intolerance include:

- **Diarrhoea:** a common symptom of most types of food poisoning bacteria and can also be a symptom of lactose intolerance.
- **Vomiting:** a common symptom of most types of food poisoning bacteria, but may could also be caused by taking in chemicals accidentally added to food.
- **Pale or sweating/chills:** a high temperature is a common symptom of E-coli and Salmonella.
- **Bloating:** a symptom of lactose intolerance.
- **Weight loss:** a symptom of gluten intolerance (coeliac disease).

#### Non-visible symptoms

**Non-visible** symptoms of food poisoning, chemical poisoning, allergic reaction and food intolerance include:

- **Nausea (feeling sick):** the most common symptom for all types of food-induced ill-health.
- **Stomach-ache/cramps:** abdominal pain is common symptom of lactose intolerance as well as a sign of an allergic reaction. Cramps may happen at the same time as diarrhoea.
- **Wind/flatulence:** a common symptom of lactose intolerance.
- **Constipation:** a symptom of Listeria food poisoning.
- **Painful joints:** a symptom of E-coli food poisoning.
- **Headache:** a symptom linked to Campylobacter, E-coli and Listeria.
- **Weakness:** non-stop vomiting, and diarrhoea can leave a person feeling weak. Gluten intolerance (coeliac disease) can leave a person feeling tired because their bodies can't absorb the correct amount of nutrients.

#### Allergic/anaphylactic reaction

- **Visible symptoms:** red skin, a raised rash, vomiting, swelling of lips and eyes and difficulty breathing.
- **Non-visible symptoms:** swelling of tongue and throat, nausea (feeling sick) and abdominal pain.
- **Anaphylaxis:** a severe reaction to eating an allergen that can lead to death. An injection of adrenaline (for example, an EpiPen) is the treatment for an anaphylactic reaction.



### Preventing cross-contamination

Food poisoning bacteria can easily be transferred to high-risk foods. This is called cross-contamination. It can be controlled by:

- washing hands before and after handling raw meat and other high-risk foods.
- using colour-coded chopping boards and knives when preparing high-risk foods.
- washing hands after going to the toilet, sneezing, or blowing your nose and handling rubbish.

### Preventing physical contamination

Physical contamination is when something which is not designed for eating ends up in your food. Physical contaminants include hair, seeds, pips, bone, plastic packaging, plasters, broken glass, flies and other insects, tin foil and baking paper, soil, and fingernails.

Physical contamination can be controlled by:

- food workers following personal hygiene rules
- keeping food preparation and serving areas clean
- checking deliveries for broken packaging
- thoroughly washing fruits and vegetables before preparation
- using tongs or gloves for handling food.

### Temperature control

Delivery	Storage	Preparation	Service
<p>The temperature of high-risk foods must be checked before a delivery is accepted. The food should be refused if the temperatures are above the safe range.</p> <p>Refrigerated foods = <b>0-5°C</b> Frozen foods = <b>-22°C to -18°C</b></p>	<p>High-risk foods must be covered and stored at the correct temperature. Temperatures must be checked daily.</p> <p>Refrigerator = <b>0-5°C</b> Freezer = <b>-22°C to -18°C</b></p> <p>Unwashed fruit and vegetables must be stored away from other foods.</p>	<p>High risk-foods need to be carefully prepared to avoid cross-contamination. A food probe can be used to make sure that high-risk foods have reached a safe core (inside) temperature, which needs to be held for a minimum of two minutes.</p> <p>Core temperature = <b>70°C</b></p>	<p>Food needs to be kept at the correct temperature during serving to make sure it is safe to eat. Hot food needs to stay hot and cold food needs to stay chilled.</p> <p>Hot holding = <b>63°C minimum</b> Cold holding = <b>0-5°C</b></p>



### Role of the Environmental Health Officer (EHO)

The role of the Environmental Health Officer (EHO) is to protect the health and safety of the public. They are appointed by local authorities throughout the UK. In the hospitality and catering industry, they are responsible for enforcing the laws linked to food safety. They inspect all businesses where food is prepared and served to members of the public, advise on safer ways of working and can act as enforcers if food safety laws are broken.

#### EHO inspections

The EHO can carry out an inspection of any hospitality and catering premise at any time during business hours – they do not need to make an appointment. During an inspection, the EHO will check to make sure that:

- the premises are clean
- equipment is safe to use
- pest control measures are in place
- waste is disposed properly
- all food handlers have had food hygiene and safety training
- all food is stored and cooked correctly
- all food has best-before and use-by dates
- there is a HACCP plan to control food hazards and risks.

The EHO is allowed to:

- take photographs of the premises
- take food samples for analysis
- check all record books, including fridge and freezer temperatures, cleaning schedules and staff training
- offer advice on improving food hygiene and safety in the business.

#### EHO and the law

If the EHO discovers problems with the food safety and hygiene in the premise, they are allowed by law to:

- remove any food that may be hazardous so it can't be sold
- tell the owners to improve hygiene and safety within a set time and then come back and re-inspect
- close the premises if there is a risk to health of the public
- give evidence in a court of law if the owners are prosecuted for breaking food hygiene and safety laws.

#### Complaints by the public

The EHO will immediately investigate any complaints of suspected food poisoning linked to a particular premise.

#### Hygiene ratings

When an inspection has been carried out, the EHO will give the business a food hygiene rating. The ratings are published on the Food Standards Agency website as well as on stickers displayed at the business. A rating of 5, or very good, represents the highest standard of food hygiene.

# The Purpose of Music in Film

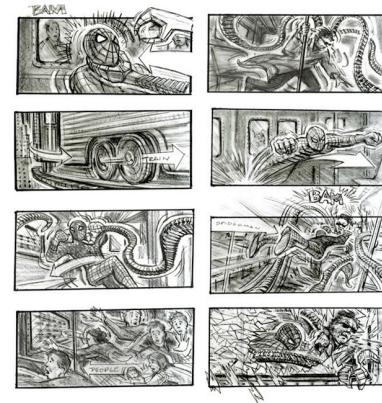
Film Music is a type of Descriptive Music that represents a mood, story, scene or character through music; it is designed to support the action and emotions of the film on screen.

To create or enhance a mood	To function as a Leitmotif	To emphasise a gesture	To provide unexpected juxtaposition/irony
<p>Frequent effects used by Film Music composers to create or enhance a mood include:</p> <ul style="list-style-type: none"> <li>• A repeated <b>OSTINATO</b> pattern</li> <li>• Sustained notes of <b>LONG DURATION</b></li> <li>• <b>TREMOLO</b> strings</li> <li>• A <b>CRESCENDO</b> with the <b>DYNAMICS</b> gradually getting louder</li> <li>• Increasing <b>TEMPO</b> (<i>Accelerando</i>)</li> <li>• <b>PITCH</b> getting higher</li> <li>• The use of <b>SILENCE</b> before something dramatic (to make you jump!)</li> <li>• Unusual harmonies such as the use of minor and <b>DISSONANT</b> or <b>CHROMATIC CHORDS</b>, <b>DISCHORDS</b> and <b>DIMINISHED CHORDS</b></li> <li>• <b>IRREGULAR TIME SIGNATURES</b> (5/4, 7/8)</li> <li>• Rapid Scale Patterns help create a frantic mood and a feeling of unrest and urgency</li> <li>• <b>INTERRUPTED CADENCES</b> create a sense of tension and suspense</li> <li>• The use of the <b>TRITONE</b> (<i>Augmented 4<sup>th</sup></i>)</li> <li>• The use of low pitch brass and strings to provide a “dark sound”</li> <li>• The use of percussive metallic sounds</li> <li>• The use of <b>SUSPENSIONS</b> that don’t resolve to build tension and make you think danger is near</li> <li>• Frequent changes in <b>DYNAMICS</b> to hint an imminent danger</li> <li>• The use of electronic sounds and synthesisers</li> <li>• The use of <b>SAMPLED SOUNDS</b></li> <li>• The use of effects such as <b>REVERB</b> or <b>DISTORTION</b> applied to electronic, synthesised or sampled sounds to change and manipulate the sound</li> <li>• The use of unusual (often electronic) instruments e.g. <i>Rósza's use of the Theremin in his soundtrack to Alfred Hitchcock's thriller 'Spellbound' (1945)</i></li> </ul>	<p>A frequently recurring short melodic or harmonic idea which is associated with a character, event, concept, idea, object or situation which can be used directly or indirectly to remind us of one not actually present on screen. Leitmotifs can be changed (<i>sequencing, repetition, modulation</i>) giving a hint as to what will happen later in the film or may be heard in the background giving a “subtle hint” to the viewer/listener.</p> 	<p>This is known as <b>MICKEY-MOUSING</b> and is used especially in animated films, cartoons and comedy films and is where the music mimics every small movement reinforcing or illustrating the action e.g. <i>sliding trombones as characters journey up and down in a lift, a descending chromatic scale as a character goes down a set of stairs</i>. Timing is crucial when using Mickey-Mousing and Film Music composers often use <b>CLICK TRACKS</b> to help them time their music exactly.</p> 	<p>Using music which the listener/viewer wouldn't normally expect to hear creating a sense of uneasiness, comparison or even humour e.g. <i>Tchaikovsky's "Swan Lake" is heard in the 'Dracula' (1931) film.</i></p> 
	<p><b>To link one scene to another and smooth over visual cuts, providing continuity</b></p> <p>Repeated sections of music can be used to link different parts of the film together – it can remind you of something that happened earlier in the film. The style of music can also change within a film with different sections of the film having different moods – love, humour, battle/war. Film scores may be <b>MONOTHEMATIC</b> where the entire film score is based upon a single melody e.g. <i>David Raksin's "Laura" (1944)</i> which is heard so often and in many different circumstances, that it comes to “haunt the listener”.</p>	<p><b>To give added commercial impetus</b></p> <p>The independent commercial ‘afterlife’ of the film score has become an increasingly important aspect of Film Music. “Hit” songs will help sell the film and are often used in the opening or closing credits. Songs may be used as title tracks but can return ‘in the background’ of the film soundtrack later. All of the James Bond films feature ‘big songs’ often released as popular music singles independently to help advertise the film and add commercial impetus.</p> 	<p><b>To illustrate geographic location or historical period</b></p> <p>Westerns often use music “from the time” to set the scene using ‘traditional’ instruments. Films set in a different country often combine traditional instruments “associated with a particular country” in their soundtracks to help the audience imagine the film’s setting and give a sense of “place” e.g. <i>the Sitar can help “place a film” in India or the Bagpipes help “place a film” in Scotland</i>. Films set in a particular historical period e.g. the 1970’s or 1980’s, may use pop songs from the time to set the scene with the audience recognising the songs and reminding them of that particular decade.</p>

# History of Film Music

Early Film Soundtracks	Film Music in the 1930's and 40's	Film Music in the 1950's and 60's	Film Music Today
<p>Early films had no soundtrack ("Silent Cinema"), so music had to be provided live, usually <b>IMPROVISED</b> by a pianist or organist. The first soundtracks appeared in the 1920's and used existing music, particularly from operas and ballets (Wagner and Verdi) and libraries of "Mood Music" were formed.</p>	<p>Soundtracks first appeared at the end of the 1920's and until the Second World War, Hollywood hired Classical composers to write huge Romantic-style film soundtracks.</p>	<p>In the 1950's and 1960's, film producers tried using contemporary popular and classical styles, including jazz and experimental music but from the 1970's, there was a rise of post-Romantic Film Music.</p>	<p>Film music today often blends popular, electronic and classical music in a flexible way that suits the needs of the particular film. Nevertheless, Hollywood still creates superstar composers whose film music often takes on a life of its own away from its original context, on CDs, downloads and in the concert hall.</p>

## How Film Music is Produced

Music Spotting	Cue Sheets	Click Tracks	Storyboards	Diegetic and Non-Diegetic Film Music
<p>The Film Music composer attends a 'music-spotting' session with the Director and decides where music is to feature in the finished film.</p> 	<p>Cue Sheets are then produced containing accurate timings (in seconds and fractions of seconds) of all dialogue and descriptions of the action.</p>	<p>An electronic metronome which facilitates the accurate synchronisation of music to events exactly – used extensively in creating music for animated films and cartoons.</p> 	<p>A graphic organizer in the form of illustrations or images displayed in sequence for the purpose of pre-visualising a motion picture, animation, motion graphic or video game sequence.</p> 	<p><b>DIEGETIC FILM MUSIC</b> – music within the film for both the characters and audience to hear <i>e.g. a car radio, a band in a nightclub or sound effects such as guns in the distance or screeching car breaks</i>. Also known as <b>SOURCE MUSIC</b> or <b>IN-VISION MUSIC</b>.</p> <p><b>NON-DIEGETIC FILM MUSIC</b> – music which is "put over the top" of the action to increase the effect of the film and for the audience's benefit and which the characters within the film can't hear <i>e.g. music to accompany a car chase</i>. Also known as <b>UNDERSCORE</b> or <b>INCIDENTAL MUSIC</b>.</p>

# Musical Features of Film Music



<b>Pitch &amp; Melody</b>	<b>Articulation</b>	<b>Dynamics</b>	<b>Texture</b>	<b>Harmony</b>
<p><b>LEAPS (DISJUNCT MELODIC MOVEMENT)</b> and <b>CHROMATICISM</b> for weirdness and “baddies” – <b>STEPWISE (CONJUNCT MELODIC MOVEMENT)</b> and <b>DIATONIC</b> melodies for happiness and “goodies”.</p> <p><b>RISING MELODIES</b> for increasing tension or increasing triumph –</p> <p><b>FALLING MELODIES</b> for decreasing tension or hopelessness/defeat.</p> <p>Westerns often feature a <b>“BIG THEME”</b> played on sweeping Strings. <b>Q&amp;A</b> phrases can represent “Good vs. Evil”. The interval of a <b>FIFTH</b> is often used in Sci-Fi film soundtracks as its “bare, open and sparse” sound quality matches that of “outer space”.</p>	<p><b>LEGATO</b> or flowing for happier situations – <b>STACCATO</b> or spiky for more challenging ones or to represent ‘frozen’ or ‘brittle’.</p> <p><b>ACCENTS</b> (&gt;) for violence</p> <p><b>SFORZANDOS</b> (<i>sfz/sf</i>) for sudden emphasis and to create a ‘shock’.</p> <p><b>PIZZICATO</b> (strings) – plucking the strings to create short, detached notes.</p> <p><b>ARCO</b> (strings) – using the bow to play.</p>	<p><b>LOUDER</b> for bolder or more powerful (whether good or bad) –</p> <p><b>SOFTER</b> for more timid/weak</p> <p><b>CRESCENDOS</b> used for increasing threat, triumph or proximity –</p> <p><b>DECRESCEDOS</b> and</p> <p><b>DIMINUENDOS</b> used for subsiding things and things ‘going away into the distance’.</p> <p>Horror Film soundtracks often use <b>EXTREME DYNAMICS</b> or <b>SUDDEN CHANGES IN DYNAMICS</b> to enhance sudden actions on-screen and to “shock” the listener.</p>	<p><b>THIN</b> or <b>SPARSE</b> textures used for bleak or lonely situations.</p> <p><b>THICKER</b> or <b>FULLER</b> textures used for warmer, more “normal” situations and <b>THICK, DENSE</b> orchestral sounds heard during battles and chases.</p> <p>Complex <b>POLYPHONIC</b> textures for confused or very active situations.</p> <p><b>HOMOPHONIC MELODY AND ACCOMPANIMENT</b> texture used for more straightforward or calm situations or for “love themes”.</p>	<p><b>DIATONIC</b> harmony for simpler situations and good characters.</p> <p><b>CHROMATIC</b> harmony for more complex situations or bad characters.</p> <p><b>CONSONANCE</b> for normal situations or “good” characters.</p> <p><b>DISSONANCE</b> for scary situations or “evil” characters often using notes which are a semitone apart.</p> <p><b>MAJOR</b> for happier – <b>MINOR</b> for sadder.</p> <p><b>SEVENTH CHORDS</b> (including the use of the flattened 7<sup>th</sup>) often used to create harmonic richness, especially in Westerns.</p> <p>Sudden changes of harmonies create unexpected moods. <b>ATONAL</b> and <b>BITONAL</b> harmonies used to create ambiguous atmospheres often in Sci-Fi or Supernatural Film soundtracks.</p>
<b>Rhythm</b>	<b>Metre</b>	<b>Duration</b>	<b>Leitmotifs, Themes &amp; Motifs</b>	<b>Timbre &amp; Sonority</b>
<p><b>FAST</b> for chases and hectic situations. <b>SLOWER</b> can mean more hesitant. <b>IRREGULAR</b> rhythms for threatening or unusual situations and <b>REGULAR</b> rhythms for safety or more “normal” situations. <b>OSTINATO</b> rhythms for repeated sounds <i>e.g. horse’s hooves</i>. <b>SYNCOPATION</b> and <b>CROSS-RHYTHMS</b> to create tension and unease. “Traditional” dance rhythms <i>e.g. American Square Dance, Tango and Bolero</i> often used in soundtracks to Westerns.</p>	<p>2/4 or 4/4 for Marches, 3/4 for Waltzes. Metre isn’t as important in Film Music as the importance is on the music directly matching and enhancing the on-screen action which sometimes doesn’t fall into the regular divisions of a time signature. “Big Themes” and songs used within films are often in 4/4 metre. <b>IRREGULAR TIME</b></p> <p><b>SIGNATURES</b> often used to create unease and tension with a lack of clear pulse.</p>	<p><b>LONG</b>, held notes are often used in Westerns to show the vast open spaces of the North-American plains or to help describe the vastness of open space in a Sci-Fi film soundtrack.</p> <p><b>SHORT</b> notes are often used to describe “busy”, chaotic or hectic situations <i>e.g. a bustling crowd, a chase scene or a battle</i>.</p> <p><b>PEDAL</b> notes are long held notes in the bass line above changing harmonies and melodies and can also create tension and suspense.</p>	<p>A frequently recurring short melodic or harmonic idea which is associated with a character, event, concept, idea, object or situation which can be used directly or indirectly to remind us of one not actually present on screen. Leitmotifs are often <i>fragmented</i> <i>e.g. in Horror films to show the deteriorating state of the hero or heroine as the film progresses</i>.</p> <p>The <b>SIGH MOTIF</b> is often used – a short rising then falling melody in an arch shape. Animated films and cartoons use a range of <b>MUSICAL CLICHÉS</b> – short motifs <i>e.g. pedal notes, ‘calamity motif’, cluster chords etc.</i> which are used every time a character does a certain action or ends up in a certain situation.</p>	<p>Traditional orchestral instruments often combined with electronic instruments. Orchestral instruments played in different ways <i>e.g. slashing the bow across the strings of a violin</i></p> <p>Sound Effects combines with traditional and electronic instruments.</p> <p>Brass Fanfares often used in Space Film soundtracks and in films when there is a battle or warfare.</p> <p>“Traditional” musical instruments ‘of the time’ help <i>place</i> a film in a specific place or time period.</p> <p>Unusual instruments often used in Sci-Fi, Space or Horror films – <i>Theremin, Celesta</i>. Instruments such as the glockenspiel used in Horror film soundtracks to create tension.</p>

# Video Game Music



## Early Video Game Music

Early video game music consisted primarily of **SOUND EFFECTS**, **CHIPTUNES** (a style of music which used simple melodies) and early sound **SYNTHESISER** technology. **SAMPLING** began in the 1980's allowing sound to be played during the game, making it more realistic and less "synthetic-sounding".



## How Video Game Music is used within Video Games

Music within a video game is often used for **CUES** (knowing when a significant event was about to occur). Video game music is often heard over a game's title screen, options menu and bonus content as well as during the entire gameplay. Music can be used to increase tension and suspense *e.g. during battles and chases* and can change, depending on a player's actions or situation *e.g. indicating missing actions or "pick-ups"*.



## How Video Game Music is Produced

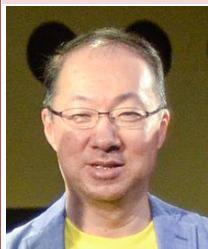
Fully-orchestrated video game music scores are now popular – technology is used in their creation but less in their performance. The composer uses music technology to create the score, it is then played by an orchestra and then digitally converted and integrated into the game. Video game soundtracks have become popular and are now commercially sold and performed in concert with some radio stations featuring entire shows dedicated to video game music.



## Character Themes in Video Game Music

Characters within a video game can also have their own **THEMES** – like **LEITMOTIFS** within Film Music. These can be manipulated, altered and changed – adapting the elements of music – orchestration, timbre, sonority, texture, pitch, dynamics – depending on the character's situation or different places they travel to within the game.

## Famous Video Game Music Composers and their Soundtracks



### Koji Kondo

*Super Mario Bros. (1985)*  
*The Legend of Zelda (1986)*



### Michael Giacchino

*The Lost World: Jurassic Park (1997)*  
*Medal of Honour (1999)*  
*Call of Duty (2003)*

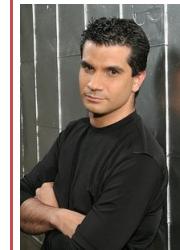


### Mieko Ishikawa

*Dragon Slayer (1993)*



**Jesper Kyd**  
*Assassin's Creed (2007)*



**Tommy Tallarico**  
*Assassin's Creed (2007)*



**Martin O'Donnell and Michael Salvatori**  
*Halo (2002)*

# Film Music Composers and their Soundtracks

<u>Bernard Hermann</u>	<u>Jerry Goldsmith</u>	<u>John Williams</u>	<u>Hans Zimmer</u>	<u>James Horner</u>
 Psycho Vertigo Taxi Driver	 Planet of the Apes Star Trek The Motion Picture The Omen Alien	 Star Wars Jaws Harry Potter Indiana Jones Superman E.T.	 The Lion King Gladiator Pearl Harbour Madagascar Dunkirk Blade Runner 2049	 Titanic Apollo 13 A Beautiful Mind Braveheart Star Trek II Aliens
<u>John Carpenter</u>	<u>Harry Robinson</u>	<u>Ennio Morricone</u>	<u>Elmer Bernstein</u>	<u>Jerome Moross</u>
 Halloween Halloween II Halloween III The Fog Season of the Witch	 Twins of Evil Countess Dracula Demons of the Mind The Ghoul	 The Good, The Bad and The Ugly For a Few Dollars More The Mission Exorcist II	 The Magnificent Seven	 The Big Country
<u>Carl Stalling</u>	<u>John Barry</u>	<u>Danny Elfman</u>	<u>Wendy Carlos</u>	<u>Rachel Portman</u>
 Many "Looney Tunes" and cartoon shorts.	 James Bond Films	 Mission Impossible (adapted) Dick Tracy Batman Returns Men in Black Spider-Man	 Clockwork Orange The Shining	 Chocolat

# RO51 - LO1

## #Level2PE

Understand the issues which affect participation in sport



Cambridge Nationals

### Popularity of sport



Sport is a popular part of the culture in the UK. There are many factors which can impact upon the popularity of sport in the UK

### User groups



The different groups of people who face barriers to participation in sport and physical activity

- Ethnic minorities
- Retired people
- Families with young children
- Single parents
- Children
- Teenagers
- Disabled
- Unemployed
- Working singles and couple

### Barriers



Factors that may make participation particularly difficult. Many of the possible barriers to participation are common to all user groups

- Lack of time
- Work commitments
- Lack of facilities
- Cost of equipment
- Lack of role models
- Lack of transport
- Lack of motivation
- Lack of awareness of activities
- Lack of disposable income
- Lack of childcare

### Solutions



Solutions to barriers faced by the various user groups are often very similar and be solutions for many of the user groups

- Free or subsidised sessions
- Promote role models
- Free or subsidised transport
- Provide childcare (crèche)
- Provide equipment
- Promotion of activities
- Arrange sessions during the day

### Spectatorship



The more people are viewing sports will increase participation rates of those sports

### Media coverage



Some sports channels show sport 24/7, this increases participation in the sports that the media show

### Participation



More people participate in sports that have widespread mass participation

### Provision



Provision varies in the UK. People cannot participate with little or no provision or access to facilities

### Environment



Weather in the UK can impact upon participation rates. There is a lack of snow in the UK for skiing

### Roles models



Positive Roles models increase participation in the sport. A lack of role models has a negative impact

### Acceptability



Many people believe boxing should be banned as it's dangerous

### Success for teams



Sporting success inspires people to take part in the sports such as GB cycling

**Know about the role of sport in promoting values**



**Cambridge Nationals**

**Olympic and Paralympics**



The Paralympics are games for people with a disability which run in parallel with the Olympic games. They are both held once every four years in the same host city. Both Olympic and Paralympic movements aim to represent similar core values

**Values which can be promoted through sport**

	<b>Team spirit</b>	You can gain the feeling of pride and loyalty from being a member of a team which makes you want your team to do well or be the best.
	<b>Fair play</b>	Allows you to show polite behaviour which involves respect for fellow competitors and playing by the rules.
	<b>Citizenship</b>	Allows performers to act in a way that citizens of a country should. This can involve getting involved in the local community through sport
	<b>Tolerance and Respect</b>	Helps you to tolerate and understand others and show respect to opponents. This could be respecting different cultures and countries through respecting the national anthem
	<b>Inclusion</b>	Sport allows people to be included within teams and competitions. This can be to encourage under-represented social groups to get involved in sport
	<b>National Pride</b>	Sport develops a sense of pride in the name, culture and practices of a country. National pride is shown when supporters and performers unite behind their country when singing the national anthem or wearing country colours
	<b>Excellence</b>	Sport helps to encourage and develop excellence. Performers strive to be the best that they can.

**The Creed**



Baron Pierre de Coubertin - Founder of the modern olympics

"The most important thing in the Olympic Games is not to win but to take part, just as the most important thing in life is not the triumph, but the struggle. The essential thing is not to have conquered, but to have fought well."

**The Symbol**



Five interlocking rings to represent the union of the five continents of the world which take part

The symbol is closely linked with all aspects of the Olympics and Paralympics and reminds everyone that the brand logo for the sporting event involves all areas of the world

**The Values**



**3 Olympic values**

- Friendship
- Respect
- Excellence

**4 Paralympic values**

- Determination
- Inspiration
- Courage
- Equality

**Know about the role of sport in promoting values**



# Cambridge Nationals

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It is very difficult to control spectator behaviour and many spectators do not follow sporting etiquette

It is common for NBA basketball spectators to deliberately put the opposition players off when shooting free throws

Some sports such as Golf can be very respectful and quiet when players are taking their shots

## The importance of etiquette and sporting behaviour



### Etiquette

Etiquette includes the unwritten rules concerning player behaviour. Examples include kicking the ball out of play when someone is injured. Not walking across someone else's putt in golf



### Sporting behaviour

Behaving in a way that shows sportsmanship. Involves polite and fair behaviour while playing in a sporting event.

## Reasons for observing etiquette and sporting behaviour

- Performing in a fair way
- Promoting positive values
- Keeping yourself and other performers safe
- Respecting performers in your own team and on the opposition
- Being a positive role model for young children

### Sportsmanship



Fair and polite behaviour is also known as sportsmanship

- Being gracious and respectful when winning or losing
- Clapping an opposition goal
- Shaking hands before and after a game

### Gamesmanship



When a performer bends the rules.

- Taking a long time to collect the ball to waste time
- Re-tying shoe laces when an opponent is about to serve in tennis
- Grunting loudly when playing a tennis shot to put off the opponent

### Spectator etiquette



Spectators also have unwritten rules to follow

- Being quiet during rallies at tennis games
- Respecting an opponents national anthem
- Staying quiet at the start of an athletics race
- Staying quiet when a rugby player kicks a conversion

**Know about the role of sport in promoting values**



**Cambridge Nationals**

#### Performance enhancing drugs



Anabolic steroids



EPO / Blood doping



Stimulants



Diuretics



Beta Blockers

## The Use of performance enhancing drugs (PEDs) in sport

**Reasons why PEDs are used**



- To lose weight
- To mask pain
- Increased ability to train
- Improved recovery
- Improved performance
- Improve strength
- Pressure to win
- Belief that others are taking them

**Reasons against using PEDs**



- Unfair advantage
- Suffer long term ill-health
- Become addicted
- Damage reputation
- Harsh consequences when caught
- Immoral to take PEDs and cheat

**Testing methods**



Urine



Blood



Hair



Nail

#### Drug offences by elite performers



Ben Johnson

Anabolic steroids



Lance Armstrong

EPO / Blood doping



Dwain Chambers

Anabolic steroids



Dwain Millar

EPO



Justin Gatlin

Stimulants

#### Impact of drug taking on the reputation of sport

- Reputation of the sport can be damaged
- Spectators may question whether the sport is clean and fair
- People will mistrust the results of the sport
- Spectators think all performers involved in the sport are cheating

#### The whereabouts rule



Is for out of competition testing



Performers must inform the authorities of their location to allow drug testing to take place



Must notify of a one hour period in every 24 hours so that they can be tested



Notification is via national organisation/ NGB for the sport who inform WADA



Must notify of any change to normal location/routine

**Know about the role of sport in promoting values**



Initiative and campaigns can be used to instil certain values for those taking part. Often the campaigns try to show the good that can be gained by taking part

## **Other initiatives and events which promote values through sport**



**FIFA's 'Football for Hope'**

- Started in 2005 as a collaboration between FIFA and 'street football world'
- Funds 'not for profit' organisations to encourage social projects for disadvantaged people



**ECB's 'Chance to shine'**

- Since 2005, has aimed to ensure that cricket is played in state schools.
- Aims to bring cricket to thousands of inner city children
- Help develops social cohesion, teamwork and respect and reduce anti-social behaviour



**Sport relief**

- Annual campaign encourages people to get active and raise money for vulnerable people
- Intended to help those people live happier, healthier, safer lives



**Premier leagues  
"Creating chances"**

- Education - including the Premier League reading stars
- International initiatives - including Sport relief and premier skills
- Health - including Premier League health initiative
- Community cohesion - Premier league into Work initiative
- Participation - Premier league schools tournament



**£10 Sport England  
scheme to increase  
participation in sport**

- Increase the participation rates of women
- 'This Girl Can' programme is funded by the National lottery and is developed by Sport England
- Aims to allow women to overcome the fear of being judged and make the choice to take part in physical activity

### **Sports initiatives to break down barriers**

**Kick it out**



Barrier to be broken:  
Racism

**Respect campaign**



Barrier to be broken:  
Abuse to referees in football

**Transforming British tennis together**



Barrier to be broken:  
Cost and accessibility of tennis

**Back to Netball**



Barrier to be broken:  
Age



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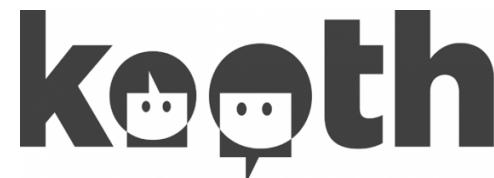
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0800 58 58 58  
Everyday, 5pm-midnight



Free 24/7 call service for all ages  
to talk about your issues  
[www.samaritans.org](http://www.samaritans.org) | 116 123



Free service & apps supporting mental health  
for ages 11-19  
[www.stem4.org.uk](http://www.stem4.org.uk)

## In School



**Speak to your Tutor**

Find a member of staff with an Orange Lanyard

***Speak to any member of staff***



Use the 'Safeguarding Concern Form'  
on your school desktop page

**Speak to your Head of House  
or Pastoral Manager**