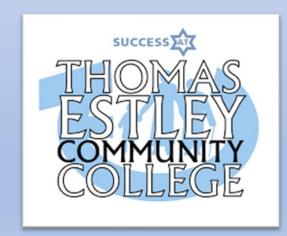
Thomas Estley Community College Year 7 Spring Term Knowledge Organiser







What are Knowledge Organisers?

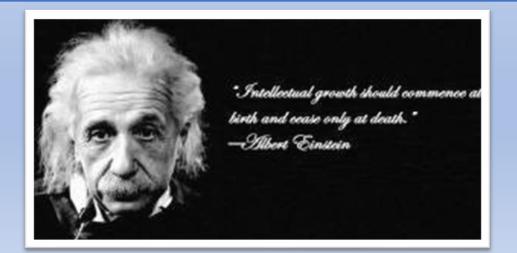
A knowledge organiser is an easy way that each subject can summarise the most important information. Each subject section will include key terms, short explanations, glossary words, diagrams etc making it clear to the student as to what is essential to learn. Each grid has an overall theme and these vary according to the subject being taught.

It will be the students responsibility to keep the knowledge organisers safe and refer to them over the whole academic year.

How will these be used at Thomas Estley?

At Key stage 3, you will be given a knowledge organiser each term. You need to keep these safe in your learning packs that you were provided with at the start of the academic year.

Your subject teachers will use these in a variety of ways, for both class work, remote learning opportunities and homework. They will be used to help with revision for class quizzes and retrieval practice activities. They will also be used for flip learning activities, where subject teachers will ask you to learn some information and then go in to it in more detail in class.







Revision Tips and Tricks!





Record It

Record yourself on your phone or tablet reading out the information. These can be listened to as many times as you want!



Teach it!

Teach someone your key facts and the get them to test you, or even test them!



Flash Cards

Write the key word or date on one side and the explanation on the other. Test your memory by asking someone to quiz you on either side.

Back to front

Write down the answers and then write out what the questions the teacher may ask to get those answers.



Hide and Seek

Read through your knowledge organiser, put it down and try and write out as much as you can remember. Then keep adding to it until its full!



Post its

Using a pack of postit notes, write out as many of the keywords or dates as you can remember in only 1 minute!



Practice!

Some find they remember by simply writing the facts over and over again.

Read Aloud

Simply speak the facts and dates out loud as you're reading the Knowledge Organiser. Even try to act out some of the facts – it really helps you remember!

Sketch it

Draw pictures to represent each of the facts or dates. It could be a simple drawing or something that reminds you of the answer.

	masculine	feminine		
Yo soy I am Mi hermana menor es my younger sister is	alto [tall] bajo [short] bueno [good] delgado [slim] feo [ugly] fuerte [strong] gordo [fat] guapo [handsome] musculoso [muscular] aburrido [boring] antipático [mean]	alta [tall] baja [short] buena [good] delgada [slim] fea [ugly] fuerte [strong] gorda [fat] guapa [pretty] musculosa [muscular] aburrida [boring]	Tengo el pelo I havehair Tiene el pelo s/he hashair Tengo los ojos I have eyes Tiene los ojos s/he has eyes	castaño [brown] moreno [dark brown] negro [black] pelirrojo [red] rubio [blonde] azules [blue] marrones [brown] verdes [green] negros [black]
Mi hermano mayor es my older brother is Mi madre es	divertido [fun] generosa [generous] mala [bad] malo [bad] simpática [nice/friendly] terca [stubborn]	Me llamo I am called / I call myself Se llama s/he is called		
my mother is Mi padre es my father is			[no] llevo [I don't] wear [no] lleva [s/he doesn't] wear]	gafas [glasses] bigote [a moustache] barba [a beard]
		Year 7 Sp Sub-Unit	anish 3 sentence builder	



Questions

Year 7 SpanishSub-Unit 3 knowledge organiser

¿Cómo eres? What are you like?

¿Cómo es.....? What is like?

¿Cuántos años tienes? How old are you?

¿Cuándo es tu cumpleaños? When is your birthday?



Grammar

- Infinitive verbs are verbs in their base form
- In Spanish the verb endings change so we know who we are talking about

Tener	To have
Tengo	I have
tienes	You have
Tiene	He/she has

Ser	To be
Soy	l am
Eres	You are
es	He/she is

Llamarse	To be called
Me llamo	I am called
Te llamas	You are called
Se llama	He/she is called

Masculine and feminine

Remember that adjectives which end in O in the masculine form end in A in the feminine form

En mi familia tengo

In my family I have...

Hay cuatro personas en mi familia

There are four people in my family

Me llevo bien con...

I get along well with...

Me llevo mal con... I get along badly with...

mi abuelo - my grandfather
mi padre my father
mi tío my uncle
mi hermano mayor
mi hermano menor
mi primo
mi abuela - my grandmother
mi madre - my mother
mi tía my aunt
mi hermana mayor - my older
sister
mi hermana menor my little
sister
mi prima - my cousin

Me gusta mi..... porque es...

I like my _____ because he is...

"Mi padre" es muy/ bastante

My dad is very/quite ...

"Mi padre" también es un poco

My dad is also a bit ...

alto [tall]
bajo [short]
bueno [good]
delgado [slim]
fuerte [strong]
gordo [fat]
guapo [handsome]
antipático [mean]
divertido [fun]
generoso [generous]
inteligente [clever]

mi prima - my cousin

Me gusta "

Me gusta "mi _____" porque es...

I like my _____ because she

is...

"Mi madre" es muy/bastante

My mum is very/quite ...

"Mi madre" también es un poco

My mum is also a bit

alta [tall]
baja [short]
buena [good]
delgada [slim]
fuerte [strong]
gorda [fat]
guapa [pretty]
antipática [mean]
divertida [fun]

generosa [generous]

simpática [nice/kind]

inteligente [clever]

terca [stubborn]

simpático [nice/kind]

terco [stubborn]

Year 7 Spanish unit 4 sentence builder



Questions

Year 7 SpanishSub-Unit 4 knowledge organiser

¿Cómo eres? What are you like?

¿Cómo es.....? What is like?

¿Cómo es tu familia? What is your family like

¿Cuántos años tienes? How old are you?

¿Cuándo es tu cumpleaños? When is your birthday?

Grammar

- Infinitive verbs are verbs in their base form.
- In Spanish the verb endings change so we know who we are talking about

Tener	To have
Tengo	I have
tienes	You have
Tiene	He/she has

Ser	To be
Soy	I am
Eres	You are
es	He/she is

Llamarse	To be called
Me llamo	I am called
Te llamas	You are called
Se llama	He/she is called



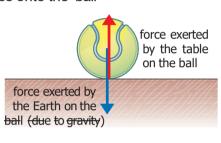




What is a force?

- A force can be a push or a pull
- A force is measured in **Newtons** (N)
- We measure forces with a **newton meter**
- Forces explain why objects will move, change direction and change speed
- Forces always act in pairs, we call these interaction pairs

e.g. the tennis ball exerts a downward force of **weight** onto the table, the table exerts an equal and opposite reaction force onto the ball



Types of forces

- Contact forces act when two objects are physically touching
- Air resistance and friction are examples of contact forces
- Non-contact forces act when two objects are physically separated (not touching)
- Examples of non-contact forces include gravitational force and magnetic forces
- We call the region where an object experiences a noncontact force a field, examples of these include gravitational fields and magnetic fields

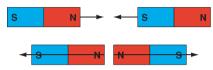
Gravity

- Gravity is a non-contact force that acts between two objects
- Gravitational force pulls you back to Earth when you jump
- The size of the gravitational force depends on the mass of the two objects and how far apart they are
- Weight is the downward force caused by gravity acting upon the mass of an object, it is measured in Newtons (N)
- Mass is the amount of matter within an object, whereas weight is the downward force of the object, we measure mass in kilograms
- We calculate weight with the equation:

 The value of the gravitational field strength can vary, so although a person's mass would be the same on different planets, their weight would not be

Magnets

- A **magnet** has two poles, a north and a south pole
- North poles attract south poles
- South poles **attract** north poles
- South poles repel south poles
- North poles repel north poles



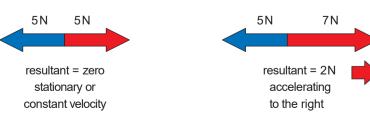
- **Magnetic materials** will experience a magnetic force when placed near a magnet, this is a type of non-contact force as the materials do not have to touch for the force to be apparent
- · The three magnetic metals are iron, nickel and cobalt

Balanced and unbalanced forces

- When forces acting on an object are the same size, but acting in different directions, we say that they are balanced
- When forces are balanced, the object is either not moving (stationary) or moving at a constant speed
- When the two forces acting on an object are not the same size, we say that the forces are unbalanced
- When forces are unbalanced, the object will either be in

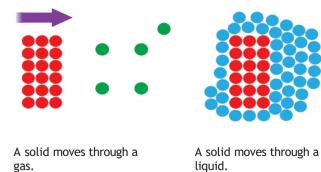
acceleration or deceleration

 The resultant force is the difference between the two unbalanced forces



Friction and drag

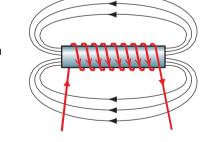
- Friction is a force which will slow down a moving object due to two surfaces rubbing on one another
- The greater the friction, the faster an object will slow down, or the greater the force it will need to overcome the force of friction. For example, it is easier to push a block on ice than on concrete, as the ice is smoother and causes less friction
- When an object is moving through a fluid, either liquid or gas, the force which slows it down is known as drag
- The fluid particles will collide with the moving object and slow it down, meaning that more force is needed to overcome this
- Both drag and friction are contact forces as the two surfaces in friction, and the object and fluid particles in drag, come into contact with one another
- Both drag and friction are forces so they are measured in **Newtons** (N)



Electromagnets

- Electromagnets are made by wrapping a coil of wire around a magnetic core
- Electromagnets only work when electricity is flowing through the coil, which means that they can be turned on and off
- Electromagnets are also stronger than **permanent** magnets
- The electromagnet will produce the same magnetic field shape as a bar magnet

iron core with current on



- You can increase the strength of an electromagnet by:
 - Increasing the number of turns on the coil around the core of the electromagnet
 - Increasing the current which is flowing through the coil of wire
 - Using a more magnetic material for the core, e.g. iron rather than aluminium



Make sure you can write definitions for these key terms.







Chemical reactions

- A **chemical** reaction is a change in which atoms are rearranged to make new substances
- A reversible reaction is one where the products can react to get back the substances which you started with, most chemical reactions are not reversible
- You can look for signs that a chemical reaction has taken place such as flames, smells, heat change, a loud bang or gentle fizz

Acids and alkalis

- Acids and alkalis are the chemical opposites of one another
- Both acids and alkalis can be corrosive and irritants

To see whether a substance is an acid or an alkali. we can use an indicator. Indicators show how acidic or how alkaline a solution is by showing its position on the pH scale, one example of this is universal indicator

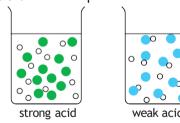
- If the solution has a pH value of 1–6 it is acidic
- If the solution has a pH value of 8–14 it is alkaline
- If the solution has a pH value of 7 it is known as **neutral**

Another example of an indicator is red & blue litmus paper

9	Strong a	acid		We	eak acid	i	Neutral	We	l ak alka	li			Stron	g alkali
	1	2	3	4			7	8	9	10	11	12	13	14
r	sulfuric acid, nitric acid, hydrochloricacid	lemon juice cola drinks	vinegar		saliva tea		water blood (7.4)		toothpaste milk of magnesia				drain cleaner	sodium hydroxide potassium hydroxide

Acid strength

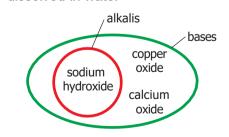
- The strength of an acid depends on how much of the acid has broken apart when it has dissolved in water
- Hydrogen chloride dissolves in water to form hydrochloric acid, this is a **strong acid** as all of the particles split up
- A weak acid will have particles that do not all split up



- The **concentration** of the acid is the amount of acid which has dissolved in 1 litre of water
- The more concentrated the acid, the lower the pH

Neutralisation

- **Neutralisation** reactions are any reaction in which acids react with a base to cancel out the effect of the acid
- These reactions form a neutral solution with a pH of seven
- A **base** is any substance which neutralises an acid
- An alkali is a base which has been dissolved in water



Salts

只

Salts are substances which are formed when an acid reacts with a metal or metal compound Different acids form

different types of salts:

- Hydrochloric acids form chloride
- Sulphuric acids form sulphates
- Nitric acids form nitrates

Metal reactions and gas tests

When a metal reacts with an acid it will produce a salt and hydrogen gas, the fizzing that you see is the hydrogen gas being given off

> metal + acid → salt + hydrogen magnesium + hydrochloric acid → magnesium chloride + hydrogen

As most gases are colourless and odourless, it is sometimes necessary to test a gas to see what it is. This helps you to understand what has happened during a reaction.

- To test to see if the gas is hydrogen: put a lit spill in the end of the test tube containing the gas. If there is a squeaky pop sound then the gas is hydrogen.
- The sound is caused by the hydrogen igniting and creating a miniature explosion.
- To test to see if the gas is oxygen: Blow out a lit spill so that the end glows. Put the glowing spill into the test tube containing the gas. If the spill reignites then the gas is oxygen
- To test to see if the gas is carbon dioxide: Put a lit spill into the test tube containing the gas. If the spill is extinguished then the gas could be carbon dioxide.
- To confirm the gas should be mixed with lime water (not from the fruit!). If the lime water turns a cloudy white then the gas is carbon dioxide

Combustion

When substances burn in oxygen a chemical reaction called combustion takes place.



- Combustion can only take place when there is a fuel to burn, heat to start the reaction and plenty of oxygen. The product of the reaction is an oxide.
- carbon + oxygen → carbon dioxide
- copper + oxygen → copper oxide
- iron + oxygen → iron oxide
- magnesium + oxygen → magnesium oxide



(

Make sure you can write definitions for these key terms.

chemical reaction concentration corrosive displacement hydroxide indicator irritant neutral concentrated acid acidic chemical alkali alkaline base oxidation pH scale reversible reactivity salt strong acid universal indicator weak acid combustion lime water oxide neutralisation

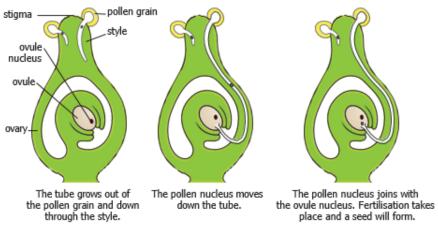




Pollination and fertilisation

Pollination is the fertilisation of the ovule, the point at which the pollen is transferred to the ovule from the anther to the stigma, there are two types of pollination

- · Cross pollination is between two different types of plant
- · Self pollination happens within the same plant



Germination is the process in which the **seed** begins to grow, for this to occur the seed needs:

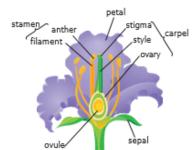
- · Water to allow the seed to swell and grow and for the embryo tostart growing
- Oxygen for that the cell can start respiring to release energy forgermination
- · Warmth to allow the chemical reactions to start to occur within the seed

Parts of a flower

Stamen

Male part of the flower

- The anther produces pollen
- The filament holds up the anther



Carpel

Female part of the flower

- The stigma is sticky to catch grains of pollen
- The style holds up the stigma
- The ovary contains ovules

Adaptations

- Adaptations are characteristics which organisms have developed to best survive in their surroundings
- · Organisms with the best suited adaptations can breed and pass these on
- Those who are not best adapted will die out and not be able to pass on their genes



Reproduction



Knowledge organiser – page 2



Make sure you can write definitions for these key terms.

Adaptation Adolescence Amniotic sac Anther Carpel Cervix Cilia Egg cell Embryo Environmental variation Fertilisation Fetus Gamete Germination Gestation Implantation Inherited variation Menstrual cycle Ovary Ovule Oviduct Ovulation Penis Petal Period Placenta Pollen Pollination Puberty Reproductive system Scrotum Semen Seed Sepal Sex hormones Species Sperm cell Sperm duct Stamen Style Testicles Umbilical cord Urethra Uterus Vagina Variation

Variation

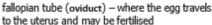
- The differences in characteristics of living things is known as variation
- · There is a large amount of variation between different species, but within species many more characteristics are shared
- . Even though two organisms may look the same, they will always have variation between them

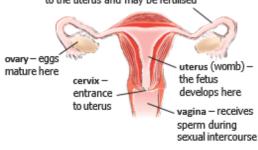
Inherited variation

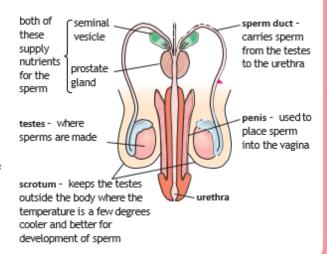
Environmental variation

- · Is anything that comes directly from your parents, anything that you inherit
- Examples can include lobe less or lobed ear lobes and eye colour
- · Is any type of variation that is caused by your
- Factors that can cause environmental variation include diet, education and lifestyle
- Environmental factors can also impact inherited factors, for example a poor diet can affect height or your exposure to the sun can affect
- Characteristics which are inherited and not affected by environmental variation include natural eye colour, blood group and genetic diseases

Reproductive systems





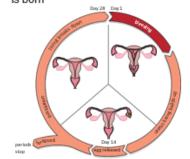


Adolescence

- · Adolescence is the process in which a child changes into an adult, it involves both physical and emotional changes
- The physical changes alone in this time are known as puberty, these are caused by sex hormones

The menstrual cycle

- · The menstrual cycle is the process in which an egg is released from an ovary and leaves through the vagina
- Day 1: blood from the uterus lining leaves through the vagina, which is known as a period
- Day 5: the bleeding stops and the uterus lining starts to re-grow
- Day 14: an egg is released from one of the ovaries during ovulation
- If the egg is fertilised than the menstrualcycle stops until the baby is born



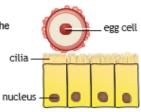
Fertilisation, implantation and gestation

Egg cells and sperm cells are also called gametes, and each contains half the genetic information needed to form a complete organism.

Egg cells

An egg is released by the ovaries every month

The egg cell is moved along the oviduct towards the uterus by cilia



Sperm cells

Sperm cells are produced in the testicles/testes

Sperm are mixed with nutrients and fluid from the glands to form semen

During sexual intercourse a man will release semen into the vagina (eiaculation)



The fertilised egg may then implant in the uterus lining and form an embryo (ball of cells)

During gestation the developing fetus needs nutrients from the mother, these are passed through the placenta which is connected to the fetus by the umbilical cord

Just a dot 3 mm long 1 week - cells beginning to specialise

4 weeks - spine and brain forming, heart beating



9 weeks – tiny movements, lips and cheeks sense touch, eves and ears forming

 Nutrients are passed from the mother to the baby and waste products are passed back from the baby to the mother

7 cm long

12 weeks - fetus uses its muscles to kick, suck, swallow, and practise breathing

· The baby is protected from bumps to the mother by the amniotic sac which acts as a shock absorber

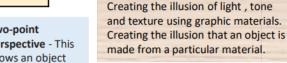
Reproduction **Knowledge organiser** page 1



Year 7 Resistant Materials Knowledge Organiser

Single-point perspective - This shows an object from the front in a realistic way as it gets smaller going into the distance. The front view goes back towards a vanishing point, which is a point on the horizon line that all lines meet at.

Two-point perspective - This shows an object from the side with two vanishing points.





3 Tone shading

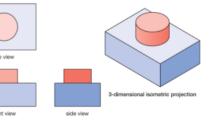
Rendering



Orthographic Projection

They are used to show an object from every angle to help manufacturers plan production. Starting with a front view of a product, construction lines show where areas join and are used to draw a side and plan (top) view, ensuring that the drawing is accurate from all angles. These drawings are to scale and must show dimensions.





Freehand sketching is the quickest way of getting your initial designs on paper before an idea is forgotten. Freehand sketches are often done without a ruler or template and instead are produced quickly and freely.



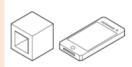
2-dimensional orthographic projection

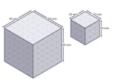
Isometric

Isometric drawings, sometimes called isometric projections, are a good way of showing measurements and how components fit together. Unlike perspective drawings, they don't get smaller as the lines go into the distance.

There are three main rules to isometric drawing:

- •horizontal edges are drawn at 30 degrees
- vertical edges are drawn as vertical lines
- •parallel edges appear as parallel lines





Personal protective equipment (PPE)

- Apron
- Leather gloves
- Goggles
- Sturdy shoes

Surface treatments and finishes

Used to improve the appearance and protect the material. Polish, varnish, paint, wax and stain are examples.

Wasting tools

Coping saw – used to cut curved lines

Junior hacksaw - used for sawing plastic and metal

Hand file – used to shape materials

Rasp – used to shape wood

Pillar drill - used to drill holes

Needle file – used to shape materials , remove material is

Disc sander: used to waste material

Marking and measuring tools

Steel rule Bradawl Centre punch Marking knife Try square



Metals and alloys

Metals are found naturally and are mined from the earth. Metals used in products are <u>extracted</u> from the natural <u>ore</u> using large heat furnaces.

Ferrous metals

Ferrous metals contain iron and are magnetic. They are prone to rust.

Non-ferrous metals do not contain iron and are not magnetic. They do not rust.

<u>Alloys</u> are mixtures of metal with an element to improve its properties or <u>aesthetic</u>. For example brass is a mixture of copper and zinc. Alloys can also be classified as ferrous or non-ferrous.

Timbers Wood comes from trees that are felled. There a are three main groups of wood:

Hardwoods - take longer to grow, are not easily sourced and are expensive to buy. Oak , beech and mahogany are hardwoods.

Softwoods - They are faster growing than hardwoods, making them cheaper to buy, and are considered a <u>sustainable</u> material. Pine is a softwood

Manufactured board - Manufactured boards are usually made from timber waste and <u>adhesive</u>. To make them more aesthetically pleasing they are often **veneered**. They are cheap to buy.

Moulds and casting – used to make complex shapes





Computer aided design (CAD) now has the capability to design new products in 3D, visualise them in a variety of materials and send images around the world for collaboration and consultation.



By using **computer aided manufacture (CAM)**, designs can be sent to CAM machines such as laser cutters, 3D printers and milling machines.





Year 7 Music Knowledge Organiser: Program music



Key Vocabulary First hand position Middle C Pitch Beat Duration

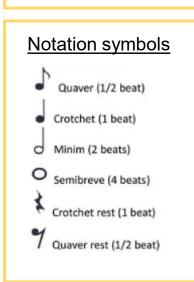
Pitch Beat Duration Tab Fret Major Minor Chord

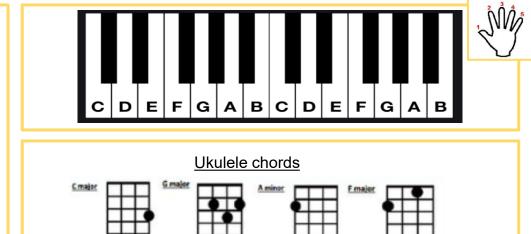
Additional Vocabulary Tempo Treble clef Time signature Melody Solo Ensemble Octave





Performance Directions
(Dynamics)
p - piano
f - forte
mp - mezzo piano
mf - mezzo forte











Introduction to Drama:

Students will Understand, Explore and apply a variety of Drama Skills:

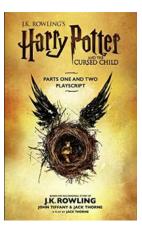
<u>Vocal-</u> Projection, Pitch, Intonation, Accent, Clarity, Inflection, Emotional range, Pace/ pause and timing.

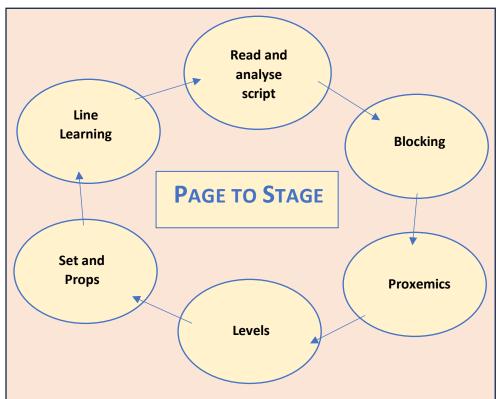
<u>Physical-</u> Characterisation, Gesture, Facial expression, Posture, Spatial awareness, Eye contact, Coordination, Timing and Expression of mood.

Before applying them to the creation of their own original material through the process of Devising from a stimulus.

Harry Potter and The Cursed Child:

Students will, explore and apply the page to stage process to the play 'Harry Potter and The Cursed Child' through a variety of workshops and performances in a range of group sizes.





DRAMA TERMINOLOGY BANK:

- Devising: A collaboration in response to a stimulus leading to the creation of an original performance.
- Stimulus: The initial idea or inspiration for the drama.
- Page to Stage Process: Read and analyse script, Blocking, Proxemics, levels, set and props, line learning and application of vocal and physical skills.
- Blocking: Planned movement that is linked to a character's motivations and emotions.
- Proxemics: The use of space between actors and how it communicates their relationship to the audience.
- Duologue: a play or part of a play with speaking roles for only two actors.
- Naturalism theatre: theatre that attempts to create an illusion of reality through a range of dramatic and theatrical strategies.
- Epic Theatre: didactic drama presenting loosely connected scenes that avoid illusion and often interrupt the story line to address the audience directly with analysis, argument, or documentation.

Dance Year 7 - Dancing Through Time

1920s - Charleston

- First appeared in the United States around 1903 in Black communities in the southern U.S.
- Historians believe that some of the Charleston's movements probably came from Trinidad, Nigeria, and Ghana.
- The Charleston involves the fast-paced swinging of the legs and big arm movements.
- The music for the Charleston is ragtime jazz, in quick 4/4 time with syncopated rhythms.

Charleston Steps:

- 1. The basic Charleston tap
- 2. The windmill
- 3. cross knees
- 4. kick and dip



1940/50s - Lindy Hop and Rock n Roll

- Lindy Hop is named after Charles Lindbergh aka 'Lucky Lindy.' A famous aviator who 'hopped' across the Atlantic in the 1st non-stop flight from New York to Paris.
- Associated dance styles include Swing, Jazz and the Jitterbug.
- Rock n Roll became popular with the success of the film'Rock around the Clock in 1956 – Starring Elvis Presley.
- Becoming popular with the teenagers of 1950 it soon gained a 'bad boy' image that gave rise to Teddy Boys in Britain. This is thought to be both the result and the cause of youthful rebellion at the time.

Lindy Hop/RnR Steps:

- 1. Applejacks
- 2. Al & Leon Triple Steps
- 3. Suzie O
- 4. Charleston Squat
- 5. Throw
- 6. Leap Frog



1960s

- The 60s was an era of 'flower power'
- Finally recovering from WW2, Britons embraced this freer way of life
- The most popular dance was 'The Twist', named after the song.
- The 'Swinging Sixties' marks a significant change in British Pop culture (music and fashion)
- The 'V' sign, which was first used by Churchill (meaning V for victory), was adopted by Hippies as an anti-war sign
- The 60s was also the birth of music video dance crazes

1960s Steps:

- 1. The Mash Potato
- 2. The pony
- 3. The Watusi
- 4. The hitch hike
- 5. The Swim



1970s - Disco

- Emerged in the 1970s from the United States' urban nightlife scene, e.g., discotheques.
- Rise in popularity in the late 70s due to the film 'Saturday Night Fever' and its soundtrack by bands such as the BeeGees.
- For the first time, people were seen dancing 'en masse' instead of in couples.
- This is also the first time that songs were released in clubs, rather than on the radio – which opened the door to a wider variety of artists.

1970s Steps:

- 1. The Hustle
- 2. Disco Down
- 3. Disco Fingers
- 4. The Snap



1980s - Hip Hop

- Began during the late 1960's and early 1970's, originally inspired by African dancing, and flourished as a new style of street dance.
- Hip-hop developed from jazz, rock, tap, and American and Latino cultures, but is most often associated with the East Coast, specifically New York City.
- It combines a variety of freestyle movements and has 3 main techniques, popping, locking and breaking, to create a cultural piece of art.
- Due to its freestyle nature, dancers are more able to let loose and worry less about technique.

Hip Hop Steps:

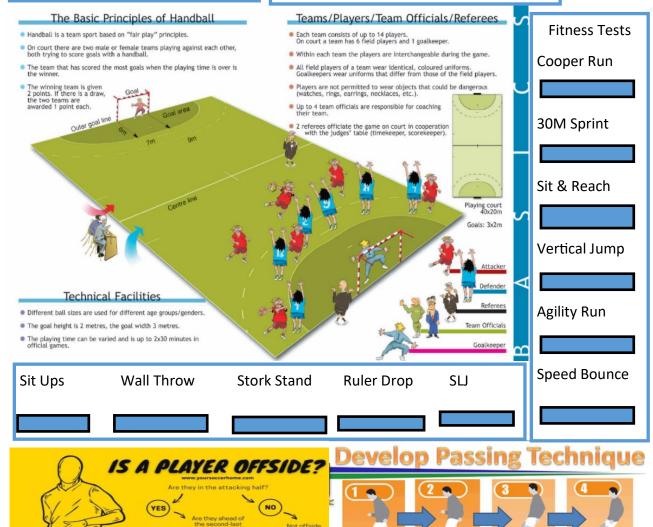
l. The Roger Rabbit 2. The Kid n Play 3. The moonwalk 4. The running man 5. The cabbage patch

Year 7 Knowledge Organiser Spring Term

How well do you understand handball?

Get ahead of the game

If you've already done your Netball rotation, keep the positions in your head. If your Netball is still to come you need to learn these



Head up and

over the ball to

picture the

pass. Arms

Spread for

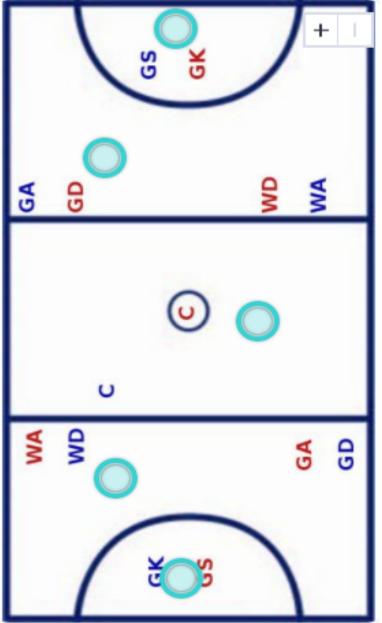
balance.

Place the non-

kicking foot at

the side of the

ball.



Kicking foot

should follow

through the ball

to the target

Strike through

the ball with

the inside of

the foot

Football Skill Development

Y7 Spring Maths Knowledge Organiser

Topic	Key fact	Hegarty maths clip number				
Read, write and compare positive integers and decimals	Hundreds Ones Tenths Tenths Hundredths One-Thousandths	13, 14 45 & 46				
Multiply and divide by powers of 10	Multiplying: Move the digits to the left Dividing: Move the digits to the right	15 & 16				
Calculations with integers	Addition and Subtraction: put in columns Multiplication: Remember place holder Division: Remember bus stop and remember to carry	1 to 12 & 18 to 23				
Rounding	5 or more: round up 4 or less: keep the same Look to the right Significant figures: start counting at first non-zero	17, 56 & 130				
Estimation	Round each value to 1 significant figure	131				
Simplify expressions	Collect all the 'like' terms (numbers, x, x^2 , x^3 are all separate terms) e.g. $12 + 3x + 6x^2 - 2x^3 - 5 - 3x + 5x^2 + 7x^3 = 7 + 11x^2 + 5x^3$ 3y means $3 \times y$ 7 $\times x$	156 and 157				
Simplifying ratio	Divide all parts by the highest common factor. Always include the colon (:).	329				
Perimeter	Perimeter is the distance all the way round a shape. All 548 sides added together.					
Area	sides added together. rectangle parallelogram h h h h h h h h					

Use the key to work out the number of cupcakes sold				
each day.				
Monday 5 x 6 =	30			
Tuesday 2.5 x 6 = 15 4 x 6 = 24				
Wednesday = 6 cupcakes 3.5 x 6	= 21			
Thursday	42			
Friday	= 60			
Saturday 9.5 x 6	= 57			
Sunday				
Which type of movie was most popular? <i>Romance</i>	425			
How many people said comedy was this favourite? 4				
How many people wer	e asked in total? 4			
Favorite Type of Movie $+ 5 + 6 + 1 + 4 = 20$				
8				
6				
aldo				
2				
Comedy Action Romance Drama SciFi				
	Wednesday Friday Saturday Which type of movie was most popular? Romance How many people said comedy was this favourite? 4 How many people wern to the favourite of Movie Favorite Type of Movie Favorite Type of Movie How many people wern to the favourite of Movie Favorite Type of Movie			

Key Vocabulary

- \circ Integer a whole number \circ Product the result of a multiplication. \circ Divisor the number that you are dividing by. Eg. 16 divided by 2. 2 is the divisor. \circ Quotient the answer after you divide one number by another.
- Power/Indices The index of a number says how many times to use the number in a multiplication. It is written as a small number to the right and above the base number.
 Root – The inverse operation of a power.
- Significant figures Leading zeros are not significant. For example, 0.00052 has two significant figures: 5 and 2. Trailing zeros in a number containing a decimal point are significant.
- o Remainder A remainder in mathematics is what's left over in a division problem.
- Round Rounding means making a number simpler but keeping its value close to what it was.
- Truncate A method of approximating a decimal number by dropping all decimal places past a certain point without rounding. Estimate To estimate means to find something close to the correct answer. Approximate an alternative word for estimate.
- \circ Area: The space inside a 2D shape \circ Perimeter: Distance all around a shape \circ Term- each part of an expression. A single number or variable within an expression.
- Expression- a mathematical sentence containing numbers and variables.
 Simplify:
 Write in shorter form.

У	ear 7 Medieval England knowledge	organise	r			
	<u>Key terms</u>					
King's Courts	Law courts which were controlled by the King and his justice.					
Church Courts	These were controlled by the church for religious offences and for any crimes committed by the clergy.	ALIGITY .				
Archbishop of Canterbury	The head of the Church in England. He was appointed by the Pope.					
Magna Carta	The document that King John was forced to sign by the barons in 1215 that limited some of his power.					
Black Death	The disease that affected England from 1348 onwards. It is estimated that it killed 40% of the population.	The conf	lict between King and Church: Henry II vs. Thomas Becket.			
Bubonic Plague	The more common Plague that was carried in the bloodstream of	1154	King Henry II appointed Thomas Beckett as his Chancellor. His job			
	rats. Fleas bit the rats and become infected. They then hopped onto humans, bit them and passed on the disease.	1154	was to look after the church and the King's law courts. During this time Henry and Thomas became good friends.			
Pneumonic Plague	This was more deadly. It was caught by breathing in the germs when an infected person coughed or sneezed. They would cough up blood and their lungs rotted inside them.	1161	Henry asked Thomas to become the new Archbishop of Canterbury. Beckett was asked to make the church courts fairer, as they favoured the churchmen. Beckett refused and made Henry			
Freeman	These people paid rent to the lord to farm their land, but they		very angry.			
	weren't 'owned' by the Lord, and could come and go as they pleased.	1164	Henry announced that he would be in charge of the church court, and Beckett agreed but then changed his mind. Sensing danger, Beckett fled to France.			
Villein	They were Medieval peasants who were 'tied' to the Lord's land. They had to farm their own land and the land of the Lord, and they	June 1170	Henry ordered the Archbishop of York to crown the next king.			
	had to get the Lord's permission to do things like get married or leave the village.		This was usually the job of the Archbishop of Canterbury. Beckett was furious!!			
Statute of Labourers	This Statute (law), passed after the Black Death, said labourers could not earn more than 2 pence per day. It was bitterly resented by the	November 1170	Despite making up, Beckett removed Henry's supporters from the church.			
	peasants.		Henry found out that Beckett had removed his supporters from			
Poll tax	Introduced by King Richard II to pay for the Hundred Years War. Everyone had to pay 4p every year – later increased.	1170	the church. Henry was furious and shouted: "Will no one rid me of this troublesome priest?!?!?!"			
	The following to pay up every year interinterestor		Four knights heard Henry's shout and went to Canterbury Cathedral. They found Beckett and tried to force him to change			
Peasant's Revolt	A popular revolt in 1381 against the rule of Richard II, his advisors	December 1170	his mind. Beckett refused and the four knights stabbed him to			
	and taxation led by Wat Tyler.		death in the church.			

Year 7 Medieval England knowledge organiser

The Black Death (1348-9)

Causes

God deserting mankind/ unusual position of the planets/ impure air from a volcano or earthquake/ the Jews

Treatments

Ask for God's forgiveness/ bleeding/ purging/ strong smelling herbs/ theriaca/ lancing buboes

Prevention

Pray/ Pilgrimage/self-flagellation/ escape!/ carry a posy of flowers/ do joyful things!/ quarantine laws





Consequences of	the Black Death
Short term	Long term
Half the people in Britain died from the Black death. More died in later outbreaks of the disease.	The Black death led to some freemen earning higher wages.
Food prices went up by 4 times as animals and crops died with no one to look after them.	The Black Death lasted from 1348-1350. Later outbreaks did occur, but they were less severe.
An estimated 35 million people, two thirds of the world's population, died from the disease.	After the Black Death people demanded freedom but lords refused. This led to the Peasants Revolt in 1381.
Landlords made less money as they had less people to charge rent.	The government tried to stop peasants getting higher wages in 1351 with a la called the Statute of Labourers.
Praying to God hadn't saved people from the Black death so some people began to criticise the bishops. This had little impact. Most people remained deeply religious.	It took 300 years for the population to recover to the same level as before the Black Death.
As there were less people alive after the Black Death, survivors could charge more for their services. Wages increased.	By the mid-1400s everyone was free.

Year 7 Medieval England knowledge organiser

The King vs. The Barons



King John (1199-1216)

Brother of the popular King Richard I, who died shortly after his return from the 3rd Crusade.

John was suspicious and had rebelled against both his father and brother. John inherited the cost of his brother's costly wars, but was a cruel and incompetent king.

Causes of the barons' revolt

John spent ten years raising taxes for a war in Normandy with France. The barons did not support this.

John lost the war and ran up huge debts.

In 1205 the Pope chose Stephen Langton to be the new archbishop of Canterbury. John refused to accept this and so was excommunicated by the Pope. The Pope supported the French against John. Eventually John was forced to admit Langton as archbishop.

John increased taxes and did not consult the barons on important issues.

John sold justice at court by rewarding nobles who paid him the most.



MAGNA CARTA

The barons were angry with John and no compromise could be agreed. In April/May the barons took up arms against the King, led by Robert FitzWalter. They marched on London, Lincoln and Exeter, which asll fell to the barons and the rebellion grew in size.

The barons issued a royal charter of demands which John was forced to accept on the field of Runnymeade on 15th June 1215. This became known as the MAGNA CARTA.

Some of the key terms of this were:

- It promised the protection of church rights
- · The King could not sell justice.
- · Protection from illegal imprisonments
- All people were to be tried by jury.
- new taxation only with the consent of the barons
- · The King could not sell justice
- A council of 25 barons would be set up to ensure that the King was respecting the rights and the laws of the charter.

The charter defined that a formal relationship should exist between the monarch and barons. The king was now subject to the law. These were radical ideas.



Consequences

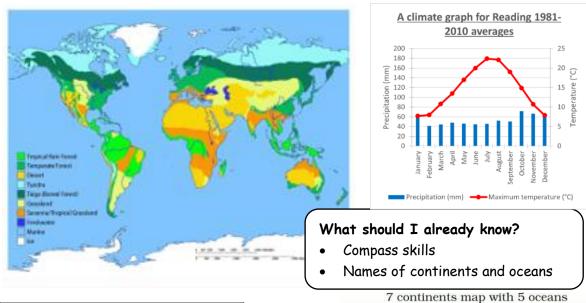
John over-turned the MAGNA CARTA in the Autumn and the battle raged again. John died in 1216 (he died of dysentery, possibly by eating too many mouldy peaches, on his way to fight the barons) and was succeeded by his 9 year old son, King Henry III.

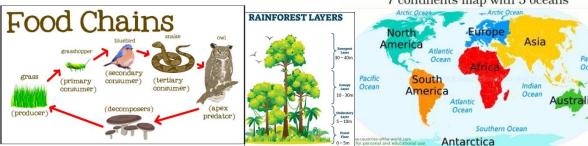
In 1225 Henry III re-issued the MAGNA CARTA to show that he accepted that the King was subject to the law.

It was re-issued in 1265 and 1297 to define the relationship between the monarchs and their subjects.

The MAGNA CARTA showed that the King could not ignore his barons and had to consult. It also made it clear that monarchs could not be a law unto themselves.

Year 7 KO - UK Ecosystems and Biomes





What conditions are needed for coral reefs to grow?

Coral reefs form at **depths not exceeding 25 metres and** need **warm water between 20 to 28 degrees Celsius**. Reefs grow faster in clear water that allows sunlight to penetrate, therefore when water is dirty or polluted, coral does not grow as well.

Threats to the polar biomes.

Scientific bases and programmes. The construction of buildings and research facilities such as roads, fuel storage, airports, and bases. However, without these scientific research bases we would not be able to monitor and research these colder regions.

Fishing, both legal and illegal. The world's oceans are over-fished, now companies are making investments into the kinds of boats and fishing gear needed for Antarctica. Also, as ice melts Arctic oceans are easier to access. Fishing could destroy the polar food chains.

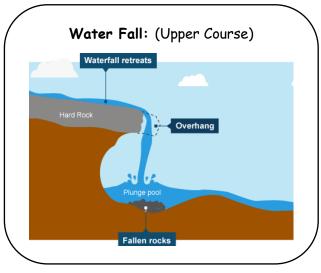
Key Vocabulary and definitions

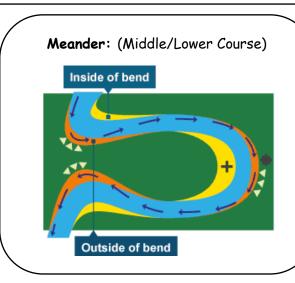
Key Term	Definition
Ecosystem	A community of living things and their
	environment, working together.
Climate	The usual weather conditions in a place over
	a long time.
Biome	A large area with similar plants and animals,
Бюте	shaped by its climate.
Food Chain	A simple line of who eats whom in an
Food Chain	ecosystem.
Food Web	A network of many food chains in an
rood web	ecosystem.
Herbivore	An animal that eats only plants.
Carnivore	An animal that eats only other animals.
Omnivore	An animal that eats both plants and animals.
Producers	Organisms, like plants, that make their own
Producers	food using sunlight.
Drimary Consumor	An animal that eats plants (the first
Primary Consumer	consumer in a food chain).
Secondary Consumer	An animal that eats primary consumers
Secondary Consumer	(usually a carnivore).
Decomposer	Organisms like fungi or bacteria that break
	down dead plants and animals.
Tertiary Consumer	An animal that eats secondary consumers;
	usually the top predator.
Distribution	Where a species or group of organisms is found.
<u> </u>	rouna.

Year 7 - How does a river change from source to mouth?

What should I already know?

- A river is a moving channel of water from its **source** (start point) on high ground flowing to its **mouth** (end point) on lowland flowing into another body of water (lake or ocean).
- Rivers usually begin in upland areas, when rain falls on high ground and begins to flow downhill. They always flow downhill because of gravity.





Flooding:

- A river floods when the water normally flowing in the channel overflows its banks and spreads out onto the surrounding land.
- Physical Factors affecting flooding: Steep Slopes, Very wet soil, Very dry soil, Rock type
- Human Factors affecting flooding: Deforestation, Urbanisation & Over Farming

Key Vocabulary and definitions

Erosion	The breaking down or wearing
	away of rock in the river channel.
Hydraulic	Water enters cracks and
Action	compresses the air, crack then
	expands.
Abassisa	Stones rub/bang against river
Abrasion	bed/banks, breaking it down.
Attrition	Stones in the river bash together
	to become smoother/round.
Corosion	Chemicals in the water react with
	the stone and dissolve it.
	A natural process where
Transportation	material/sediment is carried or
•	moved.
T 4	Large stones and pebbles pushed
Traction	along the river bed.
Calaasia	Small pebbles and stones
Saltation	bouncing along the river bed.
	Sediment floating in the water of
Suspension	the river.
Solution	Sediment dissolved in the water
	of the river.
Deposition	When sediment is dropped due to
	a lack of energy.
	<u> </u>

UK Flood - 2019

- 500 homes flooded and buildings evacuated
- Over £120m worth of damage caused
- 100 soldiers sent to help with rescue and recovery

Bangladesh Flood - 2019

- 800,000 people displaced from their homes
- 27,000 homes were destroyed
- Food aid (rice and wheat) from other countries to help feed people

UNIT 6 (Part 2/2) Describing my family and saying why I like/dislike them

Dans ma famille j'ai [in my family I have] Dans ma famille il y a quatre personnes [there are four persons in my family]	mon grand-père, Claude [my grandfather Claude] mon père, Georges [my father Georges] mon oncle, Paul [my uncle Paul] mon petit/grand frère, Olivier [my little/big brother Olivier] mon cousin, Tristan [my -boy- cousin Tristan]	MASC J'aime "mon" car il est [I like my because he is] "Mon père est très/assez [My dad is very/quite] "Mon père" est aussi un peu [My dad is also a bit]	amusant [fun] beau [handsome] fort [strong] généreux [generous] grand [tall] gros [fat] honnête [honest] intelligent [clever] méchant [mean] mince [slim] petit [short] sympa [nice/kind] timide [shy] têtu [stubborn]
Je m'entends bien avec [I get along well with] Je m'entends mal avec [I get along badly with]	ma grand-mère, Thérèse [my grandmother Thérèse] ma mère, Eliane [my mother Eliane] ma tante, Françoise [my aunt Françoise] ma petite/grande sœur, Léa [my little/big sister Léa] ma cousine, Claire [my -girl- cousin Claire]	J'aime "ma" car elle est [I like my because she is] "Ma mère" est très/assez [My mum is very/quite] "Ma mère" est aussi un peu [My mum is also a bit]	amusante [fun] belle [pretty] forte [strong] généreuse [generous] grande [tall] grosse [fat] honnête [honest] intelligente [clever] méchante [mean] mince [slim] petite [short] sympa [nice/kind] timide [shy] têtue [stubborn]

UNIT 5

Talking about my family members, saying their age and how well I get along with them. Counting to 100.

Dans ma famille, j'ai	mon grand-père, Léon [my grandfather Léon]		un [1]	an
[in my family, I have] Il y a quatre personnes dans ma famille [there are four people in my family]	mon père, Jean [my father Jean] mon oncle, Yvan [my uncle Yvan] mon petit/grand frère, David [my little/big brother David] mon cousin, Tanguy [my cousin, Tanguy]	II a	deux trois quatre cinq six sept huit neuf dix onze [11] douze [12] treize [13] quatorze [14]	ans
Je m'entends bien avec [I get on well with] Je ne m'entends pas bien [I don't get on well with]	ma grand-mère, Adeline [my grandmother Adeline] ma mère, Anne [my mother Anne] ma tante, Gisèle [my aunt Gisèle] ma petite/grande sœur, Léa [my little/big sister Léa] ma cousine, Claire [my (girl) cousin Claire]	Elle a	quinze [15] seize [16] dix-sept [17] dix-huit [18] dix-neuf [19] vingt [20] vingt-et-un [21] vingt-deux [22] trente [30] trente-et-un [31] trente deux [32] quarante [40] cinquante [50] soixante [60] soixante-dix [70] quatre-vingts [80] quatre-vingt-dix [90] cent [100]	



Year 7 - Healthy Eating



The 8 tips for healthy eating can help you make healthier

choices.

1. Base your meals on starchy foods

3. Eat more fish - including a portion of oily fish each week

than 6g a day for adults

2. Eat lots of fruit and veg 4. Cut down on saturated fat and sugar Try to eat less salt - no more 6. Get active and try to be a healthy weight 7. Drink plenty of water 8. Don't skip breakfast

https://www.youtube.com/watch?v=UIQ1Hyg9HG0

https://www.nhs.uk/live-well/eat-well/eight-tips-for-healthyeating/

Food safety and hygiene is about protecting people and reducing the risk of food poisoning.



- 75°C ZONE

Get active.



60 active do you get yours everyday?

https://www.nhs.uk/change4life/activities/sports-and-activities https://www.youtube.com/watch?v=k5Y9D37KmJo

https://www.youtube.com/watch?v=kEZvOyp -8c

https://www.youtube.com/watch?v=PByM12M1n3A

Starchy foods give us the energy we need to keep going each day.



Key vocabulary

clean / cook / chill / separate cross-contamination / safety bacteria / food poisoning temperatures / danger zone carbohydrates / protein dairy / function / hydration seasonality / portion calories / energy

The Eatwell Guide shows how much of what we eat overall should come from each food group to achieve a healthy, balanced diet. **Eatwell Guide**



https://www.youtube.com/watch?v=7MIE4G8ntss https://www.nhs.uk/live-well/eat-well/the-eatwell-guide/

Eat at least 5 portions of a variety of **fruit and vegetables** every day.

https://www.voutube.com/watch?v=K5pW7rpMTQw



https://www.youtube.com/watch?v=24lvMvFKFZo https://www.youtube.com/watch?v=b7s2Aqj72Q8

Foods high in fat, salt and sugars should be eaten less often and in smaller amounts.





https://www.youtube.com/watch?v=Jfac64PI14Q https://www.youtube.com/watch?v=vADtodHhfKU

Year 7 - Cooking skills

Equipment



Skills and Processes

Bridge hold and Claw grip



Used in: fruit salad, pasta salad, sausage rolls, Spanish omelette, potato wedges and salsa

Knife skills: peeling, chopping, slicing, dicing





Used in: fruit salad, pasta salad, sausage rolls, Spanish omelette, potato wedges and salsa

Weighing and Measuring



Used in: fruit salad, pasta salad, cheesy pinwheels, goujons, breakfast muffins, sausage rolls, scones, potato wedges

Rubbing in technique





Used in: cheesy pinwheels and scones

Key word	Meaning
Enzymic browning	Discolouration that occurs when some fruit/vegetables (eg. apples, bananas, potatoes) are cut; caused by exposure to oxygen in the air.
Boiling	Water boils at 100°C, vigorous bubbles are visible. Pasta can be cooked this way.
Rubbing in	Combining butter and flour together using your fingertips.
Enrobing	Coating an item of food (eg. fish, chicken) in flour, egg, breadcrumbs.
Glazing	Brushing with a milk or egg wash to give colour and shine to your food product (eg. sausage rolls, scones)

Independent skills I need to learn in Year 7

Use the bridge hold and claw grip to cut food safely and accurately.

Use a range of other preparation techniques eg. peeling, chopping, slicing, dicing, grating etc.

Weigh and measure ingredients accurately.

Organise all my ingredients and follow a recipe.

Use the cooker (eg. hob and oven) safely.

Food safety

Using colour coded chopping boards and equipment prevents bacteria spreading and causing food poisoning.



USE CORRECT COLOUR CODED CHOPPING BOARDS & KNIVES

RAW MEAT

RAW FISH

COOKED MEATS

SALAD & FRUITS

VEGETABLES

DAIRY PRODUCTS



Year 7 – Spring term focus: Intro to SHAKESPEARE



Key terminology:

Elizabethan – the period of Elizabeth's reign. Renaissance – (means rebirth) period in 15/16th centuries.

Jacobean – the period of King James' reign.
The Globe – Shakespeare's theatre in London.
Iambic pentameter – Shakespeare's poetic technique of writing ten syllables in a line.

Thee – old fashioned way of saying "you"

Act – a chapter of a play, containing numerous "scenes"

Tragedy – a type pf play written by Shakespeare

History – a type of play written by Shakespeare

Comedy – a type of play written by Shakespeare

When Shakespeare began writing, Queen Elizabeth I was on the throne in England.

Elizabeth I was the last Tudor monarch, the daughter of Henry VIII and his second wife, Anne Boleyn.

Her 45-year reign is generally considered one of the most glorious in English history. During this time, a secure Church of England was established and the country became renowned around the world for power and prosperity.

James I of England (he was also King James VI of Scotland) became King of England in 1603. He ordered a new translation of the Bible and although he was fairly tolerant in terms of religious faith, the Gunpowder Plot (an attempt by Guy Fawkes and other Roman Catholic conspirators to blow up the Houses of Parliament) in 1605 resulted in the reimposition of strict penalties on Roman Catholics. As an arts patron, James attended Shakespeare's plays. He was terrified by the supernatural, however, and thought witches were real evil entities. He undertook "witch trials" where he drown or set fire to women to prove if they were or weren't witches.



Measure for Measure
Midsummer Night's Dream
Much Ado about Nothing
Tempest
Twelfth Night
Hamlet
Julius Caesar

King Lear
Macbeth
Othello
Romeo and Juliet
Timon of Athens
Titus Andronicus
Troilus and Cressida



Romeo and Juliet is a play written by Shakespeare. It is a tragic love story where the two main characters, Romeo and Juliet, are supposed to be sworn enemies but fall in love. Due to their families' ongoing conflict, they cannot be together, so they kill themselves because they cannot cope with being separated from one another. Romeo and Juliet is a Shakespearean



Macbeth is a play about a brave soldier who meets some Witches on the way back from battle. They predict he will be Witches on the way back from battle. They predict ne will be sets off on a murderous, Ming, and after he is told that, he sets on on a murderous, him from the throne and destroy anyone who threatens to remove him from it. Macbeth is a Shakespearean

TRAGEDY.

A Midsummer Night's Dream is a play about four people from Athens (Greece) who run away to the forest only to have Puck (the fairy) make both of the boys fall in love with the same girl. The four run through the forest pursuing each other while Puck helps his master play a trick on the fairy queen. In the end, Puck reverses the magic, and the two couples reconcile and marry. It is a play about magic and love and is a **Shakespearean COMEDY**

OTHELLO is a play about jealousy. lago is furious about being overlooked for promotion and plots to take revenge against his General; Othello, the Moor of Venice. lago manipulates Othello into believing his wife (Desdemona) is unfaithful, stirring Othello's jealousy. Othello allows jealousy to consume him, murders Desdemona, and then kills himself. Othello is a Shakespearean TRAGEDY.

The Tempest is about a man called Prospero Who uses magic to The Tempest Is about a man called Prospero Who uses magic to conjure a storm and torment the survivors of a shipwreck, including the King of Namber and Drachers's troachers to heather the survivors of the King of Namber and Drachers's troachers to heather the survivors of the King of Namber and Drachers's troachers to heather the survivors of the King of Namber and Drachers's troachers to heather the survivors of the King of Namber and Drachers's troachers to heather the survivors of the surviv conjure a storm and torment the survivors of a snipwreck, including the King of Naples and Prospero's treacherous brother, Antonio. The King of Napies and Prospero's treatherous brother, Antonio.

Prospero's slave, Caliban, plots to rid himself of his master, but is thin a king of the king of Prospero's slave, Caliban, plots to rid nimself of nis master, but is thwarted by Prospero's spirit-servant, Ariel. The King's young son the dead falls in laws with processors. riwarted by Prospero's spirit-servant, Ariel. The King's young ferdinand, thought to be dead, falls in love with prospero's proceeding their colonians are cut to be dead, falls in love with prospero's proceeding their colonians are cut to be dead, falls in love with prospero's proceeding their colonians are cut to be dead, falls in love with prospero's price and proceeding their colonians are cut to be dead, falls in love with prospero's price and proceeding their colonians are cut to be dead, falls in love with prospero's price and proceeding their colonians are cut to be dead, falls in love with prospero's price and proceeding their colonians are cut to be dead, falls in love with prospero's price and proceeding their colonians are cut to be dead, falls in love with prospero's price and proceeding their colonians are cut to be dead, falls in love with prospero's price and proceded their colonians are cut to be dead, falls in love with prospero's price and proceded their colonians are cut to be dead, falls in love with proceded their colonians are cut to be dead, falls in love with proceded their colonians are cut to be dead, falls in love with proceded their colonians are cut to be dead, falls in love with proceded their colonians are cut to be dead, falls in love with proceded their colonians are cut to be dead, falls in love with proceded their colonians are cut to be dead, falls in love with proceded their colonians are cut to be dead, falls in love with proceded their colonians are cut to be dead, falls in love with the cut to be dead, falls in love with the cut to be dead, falls in love with the cut to be dead and the cu Ferdinand, thought to be dead, falls in love With Prospero's daughter Miranda. Their celebrations are cut short when prospero daughter bis broad accordance bis indensity. daugnter Wilranda. Their celebrations are cut short When Prospero confronts his brother and reveals his identity as the usurped of the families are remainded and all confidence of the families are remainded and the fa confronts his prother and reveals his identity as the usurped Du of Milan. The families are reunited and all conflict is resolved. of Milan. The families are reunited and all conflict is resolved.

Prospero grants Ariel his freedom and prepares to leave the island.

Prospero grants Ariel his freedom and prepares to leave the island.

The Tempest is a COMEDY.



Wired and Wireless data transmission

A computer network can be either wired or wireless.

- Wired networks send data along cables.
- Wireless networks send data through the air using radio waves.

Bandwidth—Bandwidth is the amount of data that can be moved from one point to another in a given time. Higher bandwidth = more data per second



Bandwidth is measured in bits per second

A bit is the smallest unit of data
Data transfer rates are now so good
that bandwidth is usually measured in
Megabits per second (Mbps)
1Mb—1 million bits

A **network** is where devices are connected together usually by cable or WiFi. This could be a few computers in a room, many computers in a building or lots of computers across the world.



Internet services

There are a range of services provided by the internet. These include:

- World Wide Web
- Email
- Online gaming
- Instant messaging
- Voice over IP (VoIP) audio calls
- Internet of Things (IoT)
- Media streaming (e.g. watching Netflix online)

The rules for each service are different. As a result, a different protocol is used.

HTTP—HyperText Transfer Protocol—used so that data can be understood when sent between web browsers and servers.

HTTPS—is the secure version of HTTP where data sent is encrypted.

Key Words	
bandwidth	Amount of data that can be moved from one point to another in a given time.
buffering	Data arriving slower that it is being processed
internet	A worldwide network of computers
Internet of Things (IoT)	Takes everyday 'things' and connects them to the Internet eg smart light bulb, fridge, heating etc
IP address	A unique address for every device on the internet
packet	Networks send/receive messages in units called packets
protocol	All methods of communication need rules in place in order to pass on the message successfully. These sets of rules are called 'protocols'
Search engine	A website that allows user to look up information on WWW e.g. Bing, Google etc
Web browser	Piece of software(code) used to view information on the Internet
www	Part of the Internet that contains websites and webpages. NOT the same as the Internet.

Network Hardware—physical equipment required to set up a network

Hub—Connects a number of computers together. Ports allow cables to be plugged in from each connected computer.

Router—Used to connect two separate networks together across the internet

Sever—A powerful computer which provides services to a network

Cable—Used to connect different devices together. They are often made up of a number of wires.

Moderand Data Spreadsheets

Spreadsheets are used to model data.

That means that they can be used to perform calculations on data and make predicts.

Cell reference

Spreadsheets use data which is held in cells.

Data and **information** are not the same.

•Data: facts and figures in their raw form

•Information: data that has been given structure or meaning

For example:

Data-10, 2107, 18

Information—Time 10am, date 21st July, temperature 18°

Data can be gathered from different sources

Primary source: collecting data yourself

• **Secondary** source: someone else collects the data

Each box on a spreadsheet is called a **cell** and they hold data.

Each **cell** has a unique **cell reference** to identify its location.

Example G7

Formula bar

In order to complete calculations spreadsheets make use of **formula**.

A formula uses the following basic symbols

The = symbol is always at the start of a formula

The + symbol is used for addition

The - symbol is used for subtraction

The * symbol is used for multiply

The / symbol is used for divide

Functions are also used which are predefined formula.

Common functions are

SUM—adds a range of cells

MAX—returns the largest value from selected cells

sheets—

Individual pages in a worksbook

MIN—returns the smallest value from selected cells

AVERAGE—provides the arithmetic mean (average) of selected cells

COUNTIF—counts the number of cells in a range that meet the given criteria

IF— allows logical comparisons

COUNTA—counts cells that are not empty

The tool bar at the top allows for **formatting** of the data. Changing colour, size, style etc

There is a **sort** and **filter** tool that allows for data to be arranged in ways that is most useful for the user e.g. alphabetical, highest first etc.

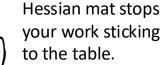
Column— runs down a sheet

assigned a letter

Conditional formatting can be set to allow the cell **formatting** to **automatically** change if certain criteria is met. For example a cell might turn red if there was a negative number

CLASSROOM RULES

- Hang your coat and blazer on pegs.
- Put your bag **UNDER** the table.
- Pencil cases ON the table.
- 4. **ALWAYS** listen carefully to instructions.
- 5. Wash hands after using paint, clay etc.





Tie your hair up.

Jewellery

Always

wear an

apron.

PAINT NAMES



Vandyke Brown **Burnt Sienna**

Prussian Blue

Ultramarine

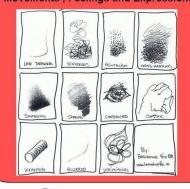
Hookers Green

Yellow Ochre

White

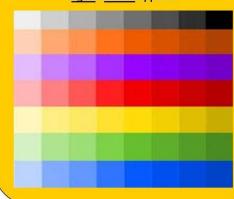


A Line is the path left by a moving point, e.g. a pencil or a brush dipped in paint. A line can take many forms, e.g. horizontal, diagonal or curved. A Line can be used to show Contours, Movements, Feelings and Expressions



TONE

Tone means the lightness or darkness of something. This could be a shade or how dark or light a colour appears



SHAPE & FORM

A shape is an area enclosed by a line. It could be just an outline or it could be shaded in.

Form is a three dimensional shape such as a sphere, cube or a cone.

Sculpture and 3D design are about creating forms





MAL ELEMENTS

TEXTURE

Texture is the surface quality of something, the way something feels or looks like it feels. There are two types of texture: Actual Texture and Visual Texture.

Actual Texture- really exists so you can feel it or touch it

created using different marks to represent actual texture.



COLOUR

There are 3 Primary Colours: RED. and BLUE.

By mixing any two Primary Colours together we get a Secondary Colour;

GREEN and PURPLE



PATTERN

A pattern is a design that is created by repeating lines, shapes, tones or colours

Patterns can be manmade, like a design on fabric, or natural, such as the markings on animal fur.





CLAY LESSON

Guide rules help

you to roll out