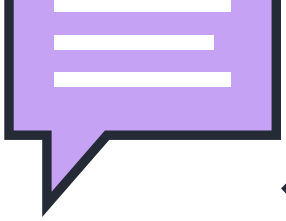
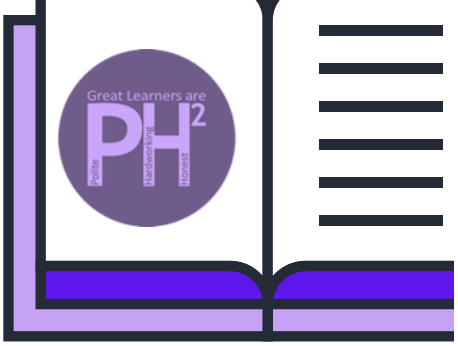
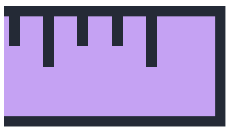


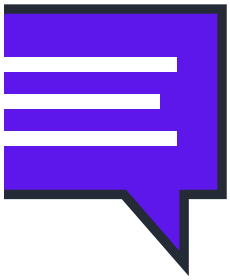


HOME-LEARNING

YEAR 7



HALF TERM 4



"STRIVE FOR PROGRESS, NOT PERFECTION."

UNKNOWN

Core Values

Our school community is built on three important values which underpin all we do.

We believe that great learning comes from:

Politeness

- We treat every person and thing as we want to be treated
- We are respectful, polite and courteous at all times
- We help others at all times

Hard-work

- We never give up
- We remain positive so that we have the strength to persevere with even the hardest work
- We do what it takes, for as long as it takes

Honesty

- We are true to ourselves and others and we do not make excuses
- We look to ourselves to see what needs to be done.

What is learning?

A big part of learning is about getting knowledge to go into your long-term memory and then using this knowledge. Our brains will only remember knowledge in the long term if we think really hard about it. Just reading, or highlighting does not make our brains work hard enough. We must **practise** remembering things – this will feel difficult at the time but worth it in the end.

What is a knowledge organiser?

A knowledge organiser is a document that contains key facts and information. A knowledge organiser will not include every possible fact on a topic; it will include facts needed to understand the main points. Knowledge organisers make knowledge clear. So, even if a learner misses a lesson, they have a constant point of reference.

Why are knowledge organisers good for learning?

Research shows that our brains remember things more efficiently when we know the 'bigger picture' and can see the way that 'nuggets' of knowledge link. Making links helps information move into our long-term memory. A knowledge organiser shows linked facts on a single topic.

Knowledge organisers can be used for retrieval practice (practising remembering things). Regular retrieval of knowledge helps us remember more effectively with our long-term memory. Developing our long-term memory is a vital first step. Without knowledge we have nothing to work with, nothing to think about! Retaining knowledge over time is essential.

To help us understand learning better, Gateacre students and staff have created a series of videos that explain how memory works and what we can do to make it stronger. Follow the QR code or the Learning to Learn link to view them.

How can you best use your knowledge organiser?

There are many ways you can use a knowledge organiser. The most important thing to say, however, is 'use it'. Owning one does not make you remember facts… **you must practise** if you are to improve at anything! There will be mistakes – this is how you learn. Ultimately, the best way to remember things is to try and remember facts that you can't quite remember instantly… practice, practice and practice.

Here are some ways you could try to improve your **long-term memory** – they are all based on making you **think**, getting you to **test your memory**. That way your memory will get stronger:

Hide and seek

Read through a small section of your knowledge organiser (three or four key words), cover the facts and try to write out as much as you can remember. Check your answers and correct them if needed. Then choose your next words or check ones you have already done again.

Quiz

Test your memory by asking someone to quiz you on facts from your knowledge organiser. Write down your answers and see how many you get right. Correct any facts you get wrong.

Teach it!

Teach and explain to someone your key facts – you could even test them!

Back to front

Write down a fact from memory and then compose a question that would lead to that answer.

Sketch it

Draw pictures /diagrams to represent each of the facts or dates (time lines, flow diagrams, or labelled pictures are great ways of remembering parts of a system or orders of events).

Repackage it (from memory)

Create a mind map that brings different facts together under one title. Check that your key words are spelt correctly… or, take a key word and create a sentence that uses it.

Take pride in how you present your work. Each page should be clearly labelled with an underlined date. There should be at least one page of work.

Always check your answers and correct anything you got wrong…. You are allowed to get things wrong… That is how you learn! Getting yourself to think is the key!

Do not just copy a knowledge organiser out – that would not help learning and would only waste your time! Make sure you are having to think!

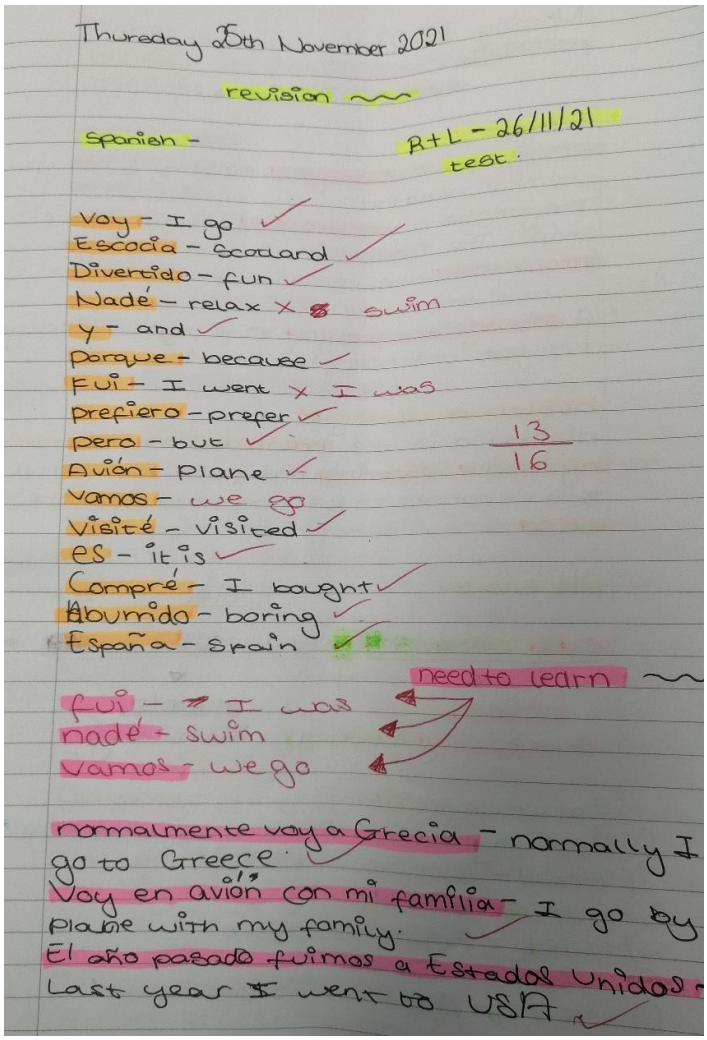
What does effective home-learning look like?

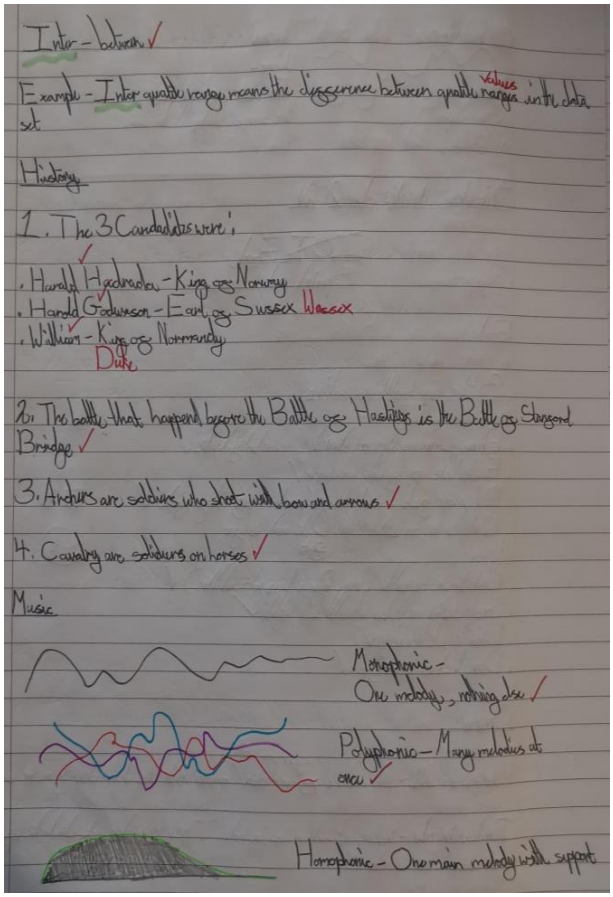
Here are some essential points to remember and some examples to see.

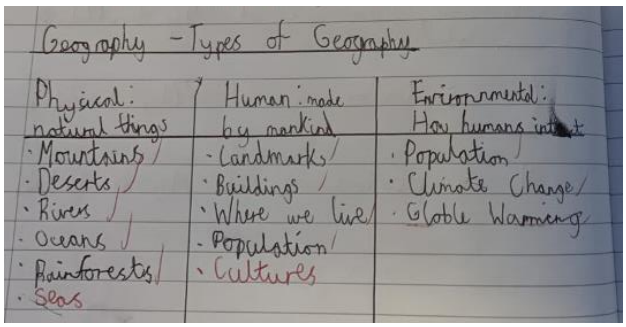
- Long term memories are created when you have to **think**. Simply copying does not help you remember. Testing yourself will make you **think** and remember

- The process of reflection and self-assessment is important if you are to fix mistakes. Do not worry about getting things wrong as long as you check, fix it and try again

All these learners have **read**, **thought**, **tested themselves** and then **checked** their work. They will start to develop long term memory which they can then use in the future.







MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Maths	**Computing/Food**	**English**	**Design Technology (DT)**	
History	**Drama**	**Geography**	**Science** **[Knowledge Organisers]**	
Music	**Spanish**	**Art**	**Active Lifestyles/RS**	
← **Science: Tassomai On-Line (complete one daily goal each day)** →				

Where subjects share a slot it is for **you** to decide which one **you** know less about - which one should **you** revise? **You** decide which one to do.

Science: Remember, you should do a **Tassomai daily goal each day** to help your science learning.

Literacy: Do take time to engage with the **Listening Project**. Developing our vocabulary is immensely important if we are to develop as learners. The **listening project** is an opportunity to listen to interesting ideas, facts and make our vocabulary better. You can do this short activity at any point within the week.

Remember, you can always do more. Challenge yourself to be the best you can be!

How to use the 'Listen' Project

Start Here

Being read to is a vital part of learning - hearing words that we are unfamiliar with, ideas that we don't understand yet and thoughts we haven't had a chance to think.

Even simple stories create links from one idea to the next. The fairy tales we heard when we were babies give us the first step to understanding the adventure stories we read in school.

Take time out and listen…

Step 1 – Click the link and listen.

You can follow the text as you are read to or just listen.

Step 2 – Check the text.

Have a look at the texts. There are three pieces of writing.

The first piece may appear to be very simple, maybe even too young for you. These stories are some of the first we hear and often start our journey to understanding more complicated ideas.

The second text may be something you recognise or have read yourself. Is there a link to the first story?

The third is the most complex and may even leave you with a lot of questions.

Step 3 – What's the connection?

The final step is to think about what links these texts and stories together?

Where have you thought about these ideas before?

Do you think about any of these ideas in school?

You can go back and listen to the texts being read as many times as you like.

SCAN ME

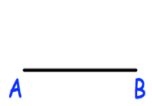
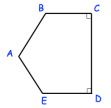
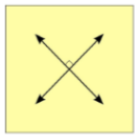
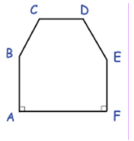
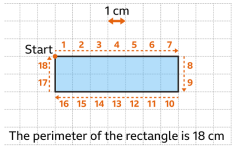
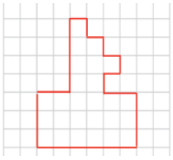
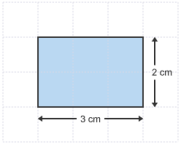
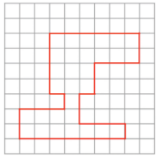
The 'Listen' Project #1

Mathematics

Your Maths Home Learning has two parts:

Part 1 is: Copy the definition of the key word and diagrams into your Home Learning Book, then use these to complete the task

Part 2 is: Scan the Corbett Code (or look up the video number) for extra practice.

Week	Key Word	Definition	Task	Corbett Code
1	Capacity	Capacity is how much space there is inside a 3D object Another word for capacity is volume	Find 5 objects around the house and state their capacity Hint: The kitchen might be a good place to look!	
2	Parallel	Parallel lines are lines that remain the same distance apart and will never meet  Parallel lines are indicated by arrows going in the same direction.	Name the parallel lines (a) Draw a line parallel to the line AB.   	Scan here 231
3	Perpendicular	Perpendicular lines are lines that intersect (cross over) at a 90 degree angle (right angle) 	Two lines are perpendicular to AF. What are they?  	Scan here 232
4	Polygon	A polygon is a 2D closed shape with straight sides, eg triangle, hexagon, etc.	Draw and label 5 polygons. Eg triangle, square, pentagon. A circle is not a polygon. Why not?	
5	Perimeter	Perimeter is the distance around the outside of a shape  The perimeter of the rectangle is 18 cm	Find the perimeter 	Scan here 242
6	Area	Area is the total amount of space inside a 2D shape.  $A = 6cm^2$	Find the area 	Scan here 43

Year 7 History KNOWLEDGE ORGANISER

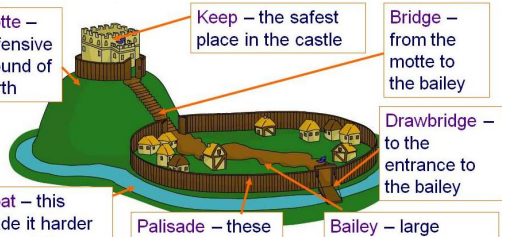
Topic: Why did castles change across England, Wales and Scotland in the Medieval period?

YEAR 7
HT 5

Overview

Castles are an important part of our history. They are fortresses that have been used to impose the will of the government on conquered people. Over the years the castle underwent major developments and there was an "arms race" as it became a competition between those trying to capture castles and those trying to defend castles.

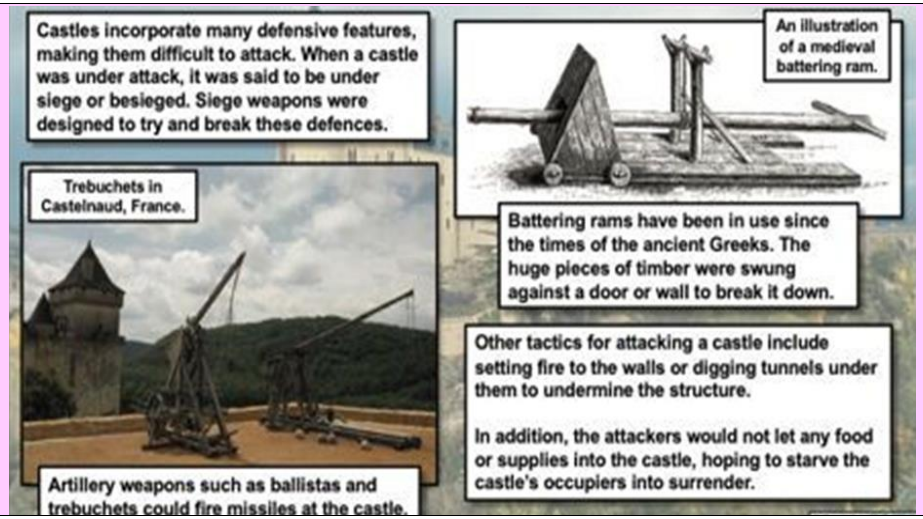
The Motte and Bailey Castle was the first type of castle. It was brought to Britain by the Normans in 1066. It was only ever meant to be a temporary castle while longer lasting ones were built. It was easy to build as it was built out of wood but wood was not very strong and would rot.

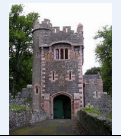


The first developments after the Motte and Bailey castle were stone castles. At first they were simple stone towers (keeps) which were square. Eventually they started to add walls with more towers which were often round as round towers were stronger and had better views.

During the Crusades Europeans discovered Concentric Castles which were castles with two sets of walls, with the inner walls being much higher than the outer walls.

Many important Concentric Castles were built by Edward I of England when he conquered Wales in the 1280s. These included Beaumaris, Harlech, Conway and Aberystwyth castles.



Defensive feature	Definition
Moat 	A deep ditch around a castle filled with water and with steep sides to prevent people reaching walls.
Barbican 	A small "mini castle" built over a castle's gateway.
Drawbridge 	A bridge over a moat which could be raised by defenders to make it harder for attackers to get to the gate.
Battlements 	Part of the wall behind which defenders hide and throw/fire things from.
Murder Holes 	Holes in the ceiling of the barbican or gateway from which things could be dropped on any attacker.

A diagram of a stone castle which shows how castles developed from the first wooden Motte and Bailey castles.

Case Study: Kenilworth Castle

A vast medieval fortress that was the scene of a famous siege and later became an Elizabethan palace. Kenilworth Castle is among Britain's biggest historical sites.

Simon de Montford	Was granted the castle by Henry III and was part of a rebellion against the King. He was killed at the battle of Evesham.
Elizabeth I	Queen of England and was a guest at Kenilworth in 1575. The gardens and many improvements to the buildings were done in her honour as Robert Dudley attempted to gain her hand in marriage.
Robert Dudley	Was one of Queen Elizabeth's favourites and made vast improvements to Kenilworth in order to gain Elizabeth's hand in marriage.
King John	Changed Kenilworth from Motte and Bailey timber castle into a stone building, starting with the Keep.
John of Gaunt	Was an extremely powerful Noble with links to the royal family. He made huge renovations to Kenilworth turning it from a castle for just defence into a royal residence.
The Normans	Were Catholic and had conquered England through William the Conqueror in 1066. They also brought their skill in building castles. They followed a strict class system which was the Feudal System.
The Angevins	Were strong Catholics and kept the same class system as the Normans. They had problems with rebellions from the nobility.
The Lancastrians	Catholic and religion was very important. John of Gaunt was a very wealthy and powerful noble during this reign and made Kenilworth fit for a King.
Dudley and Elizabeth	Change in religion from Catholic to Protestant. Massive change towards culture, arts, and paintings. Kenilworth was improved to impress Elizabeth I.
Trade	The location of Kenilworth meant it was on most of the trade routes.
Geoffrey de Clinton	Built an earth and timber castle in the area to keep an eye on the Earl of Warwick for the King, who was fearful of Warwick castle.

Tasks

Task 1

Look at the "Overview" section on the page above. Explain why castle design needed to change for the English who were building them.

Task 2

Look at the 'Defensive features' section on the page above. Choose the two features that you think would be the most important for the defense of a castle. Explain why these are more important to defend a castle than the other features.

Task 3

Look at the bottom part of the page above which shows methods of attacking a castle and the updated Concentric Castle design. Which methods of attack do you think would have been most damaging to castles? Explain your answer.

Task 4

Read through the Kenilworth Timeline by scrolling down to the bottom of the page at the following link.

https://www.english-heritage.org.uk/visit/places/kenilworth-castle/

SCAN ME

Task 5

Read **BBC Bitesize** *Defending Caerlaverock Castle*. Click on the labels to see how each defensive feature worked for this specific castle. Then scroll down and complete the Test your Knowledge quiz.

https://www.bbc.co.uk/bitesize/topics/z74jpv4/articles/zhrb6v4

SCAN ME

ELEMENTS OF MUSIC 1

Texture: how different layers of instruments are used

Monophonic: One melody – nothing else

Polyphonic: Many melodies at once

Homophonic: One main melody with support

Unison:  Two instruments playing the same melody at the same time

Harmony: the chords and how they sound

Major: Positive harmony (happy, relaxed)

Minor: Negative harmony (sad, dark, gloomy)

Chord: A group of notes played together (often 3 notes)

Instruments:

Strings: Violin; Viola; Cello; Double Bass; Guitar; Sitar

Woodwind: Flute; Oboe; Clarinet; Bassoon; Saxophone

Brass: Trumpet; Trombone; French Horn; Tuba

Percussion: Drums (lots of types); Tambourine; Cow Bell; Timpani; Xylophone

Timbre: The sound itself e.g. an instrument might sound metallic, breathy, mellow.

Rhythm:

Time Signature: The regular count of the music. How many beats are in each bar?

2/4 3/4 4/4 = most common time signature 6/8

Syncopated: Playing off the beat. This will create a more complicated rhythm. Syncopation is common in jazz and popular music as well as much folk music (i.e. African drumming, Samba)

Ostinato: This is a repeated pattern. A repeated rhythm can be very effective in creating a strong sense of rhythm (**Samba** and **African drumming** use layers of **rhythmic ostinato patterns)**.

Task 1: Learn the names of the different **textures** and what they mean.

Task 2: Revise task 1 – texture, and learn the **harmony** words and what they mean.

Task 3: Learn the **rhythm** words: **Time Signature; Syncopated; Ostinato** and what they mean.

Task 4: Learn which **instruments** are in the four instrument families (Strings; Woodwind; Brass Percussion) and what the word **timbre** means.

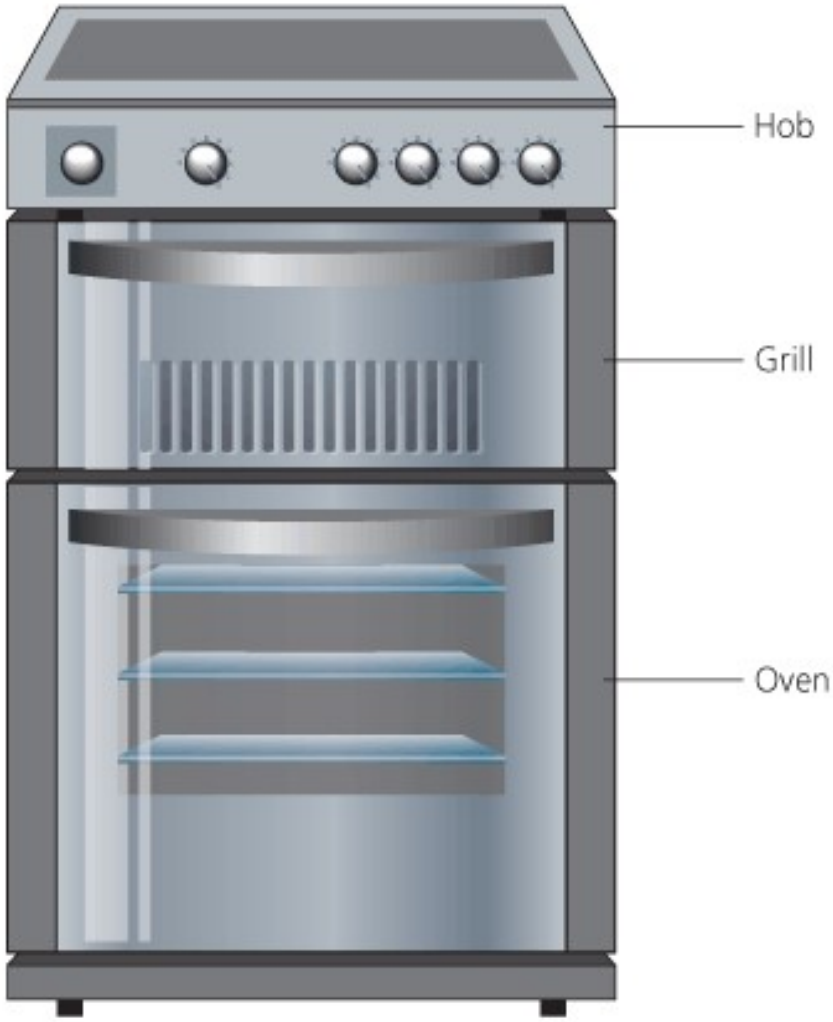
Task 5: Create a 10-question quiz based on **Texture** and **Harmony**.

Task 6: Create a 10-question quiz based on **Rhythm** and **Instruments**.

The Cooker

A cooker is made up of three parts:

- the hob
- the grill
- the oven.



The hob

The hob is the top part of a cooker. An electric hob has hotplates, and a gas hob has burners.

- Food is not cooked directly on the hob; it is placed in equipment such as a saucepan or frying pan to heat or cook through.
- Some foods are placed in water to cook.
- The dials on the front of the cooker allow you to adjust the temperature of the hob to suit the food being cooked.

Foods suitable for cooking on the hob are:

- vegetables
- pasta, rice and noodles
- eggs
- soups, stir fries and sauces
- bacon.

The grill

A grill radiates heat downwards to cook food.

- You can select the amount of heat you need when using the grill; and the shelves can be moved up or down to get the right amount of height from the grill to the food.
- Most cookers have a grill pan and a handle, so that the grill pan can be pulled out from under the grill, the food checked, turned and slid back.

Foods suitable for grilling are:

- tomatoes
- fish
- halloumi
- tender meats that cook quickly such as steak, burgers and sausages.

Croissants, brioche and slices of bread can be toasted on each side using a grill.

The oven

- When using the oven, check your recipe and set the correct oven temperature and the correct height of shelf.
- Some electric ovens have a light which switches on when the oven is on, and goes out when the oven reaches the correct temperature.
- Ovens are usually preheated before the food goes in, so that it is cooked at the right temperature. Some recipes such as cakes and pastries should always have a pre-heated oven.
- Gas ovens should be carefully lit. Oven temperatures are given as gas mark numbers.
- Most gas ovens have zones of heat, with the top of the oven as the hottest and the lower part of the oven as the coolest. This needs to be taken into consideration when using a gas oven.

Foods suitable for cooking in the oven are:

- baked foods such as scones, bread, pastry and cakes
- casseroles
- roasted meat and vegetables.

Chopping Board

Measuring Jug

Wooden Spoon

Colander

Saucepan

Frying Pan

Balloon Whisk

Palette Knife

Cooking Techniques

Cooking with water

- **Boiling** – foods such as potatoes, eggs, vegetables, pasta and rice can be cooked by placing them in liquid at boiling point of 100°C.
- **Simmering** – foods such as curries and fruit are simmered; this means they are cooked just below boiling point.
- **Poaching** – eggs and salmon are cooked very gently in hot water.
- **Steaming** – vegetables, fish, puddings and chicken can be cooked in the steam coming from boiling water.

Cooking with fat

Different fats are used for cooking, such as butter and oil.

- **Deep fat frying** – potatoes, battered seafood and vegetables are cooked by being covered in very hot oil.
- **Stir frying** – small pieces of food such as vegetables and strips of meat can be cooked in a small amount of oil quickly over a hot heat.
- **Roasting** – potatoes, meat, sausages and vegetables are cooked in the oven in hot fat.

Cooking with dry heat

With this method, food is cooked in the oven or under the grill and no liquid or fat is added.

- **Baking** – pastry, bread and cakes are cooked in dry heat in a hot oven which cooks the food through.
- **Grilling** – meat, fish, sausages, vegetables and naan bread are placed under the direct heat. Bread can be grilled to make toast.

Tasks:

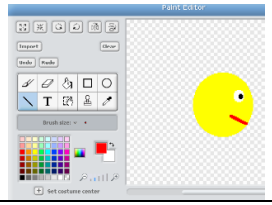
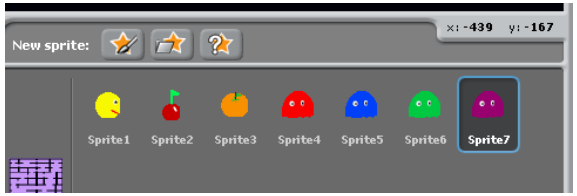
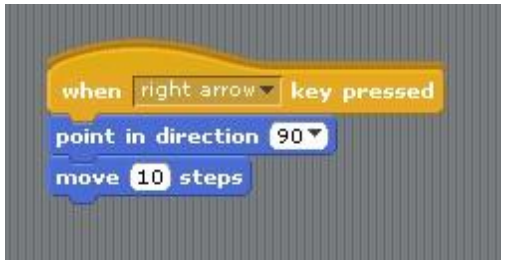
1) Produce a selection of flash cards using the equipment, cooker parts and cooking method terms on these pages. Word on one side, definition on the other.

2) Find a recipe and see if you can identify the different equipment you would need to complete the recipe. Write these as a list.

3) Think of a common ingredient, i.e. potato. Now mindmap potato with as many different ways of cooking it as possible. Try to use the cooking methods above.

4) Create an instruction label for one piece of equipment. Pretend the label is for someone from outer space and has never seen or cooked before, how would you explain it to them.

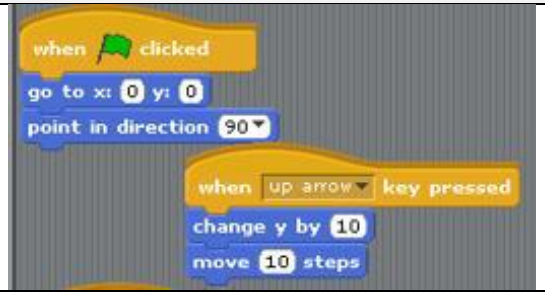
Computing Department Knowledge Organiser: Year 7 Scratch Programming

Scratch Programming	
What is scratch? 	Scratch is a free graphical **programming language** that allows you to create interactive stories, games, animation, music, art and presentations. You will be designing and programming a PAC-MAN game in school.  
Learn how to use Scratch online https://scratch.mit.edu	There are tutorials and projects you can access online. Scan the QR code with a camera to go to the tutorials webpage: https://scratch.mit.edu/projects/editor/?tutorial=all
What is an algorithm? 	An **Algorithm** is the step by step instructions to complete a task. A set of rules to be followed in order. You can write your own algorithms in Scratch. Scratch has pre-programmed blocks of code that can be placed together to create your algorithm to create the instructions for your sprite(s) and the background. The first algorithm will be basic movement of your sprite.
What is a variable? 	A **variable** is something that changes during the running of the program. Variables can be used to create scoring in a game e.g. keys collected or lives.

Computing Department Knowledge Organiser: Year 7 Scratch Programming

Sequencing

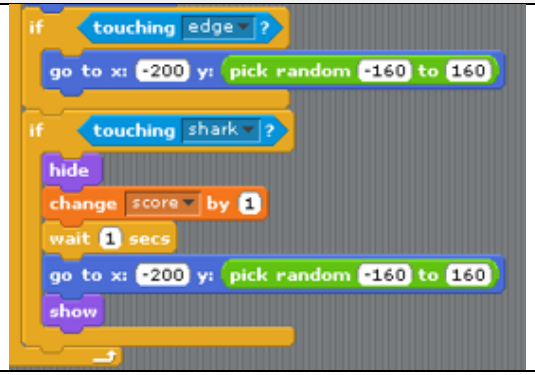
Sequencing is the specific order in which instructions are executed.



Selection

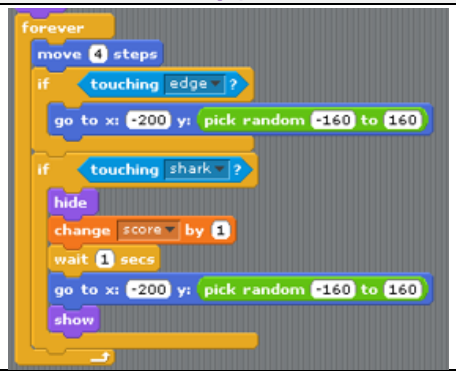
Selection is where a program may need to ask a question because it has reached a step where one or more options are available.

Depending on the answer given, the program will follow a certain step and ignore the others.



Iteration (known as a Loop)

Iteration means repeating steps, or repeating instructions, over and over again. This is often called a 'loop'.



Tasks

- **Task 1** - What is Scratch?
- **Task 2** - What is a sprite?
- **Task 3** - What is an algorithm?
- **Task 4** - What is a variable?
- **Task 5** - Describe sequencing?
- **Task 6** - Describe selection?
- **Task 7** - Describe iteration?

Computing Department Knowledge Organiser: Year 7 Scratch Programming

Scratch - Key terms and definitions

Boolean expression

A Boolean expression is an expression that is either **true or false**. In Scratch, any diamond-shaped block is a Boolean expression.

Comparison operator

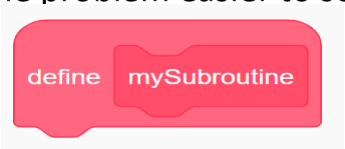
Used to compare two expressions.

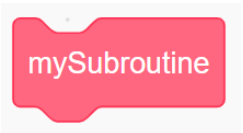
Operator	Meaning	Example
	greater than	 Is price greater than 2,000?
	less than	 Is price less than 2,000?
	equal to	 Is price equal to 2,000?

Decomposition

Breaking down a problem into smaller, more manageable parts in order to make the problem easier to solve.

Subroutine





A block of code within a program that is given a unique, identifiable name. Supports code reuse and good programming technique.

Scratch - Key terms, definitions and tasks

Computer bug

Code that causes your computer to behave in an unexpected way.

Problem Solving

Problem solving is about using logic and imagination to make sense of a situation and to come up with an intelligent solution.

Resilience

The capacity to recover quickly from difficulties.

Tasks

Task 1 - Describe what Boolean expression means?

Task 2 - What is a comparison operator?

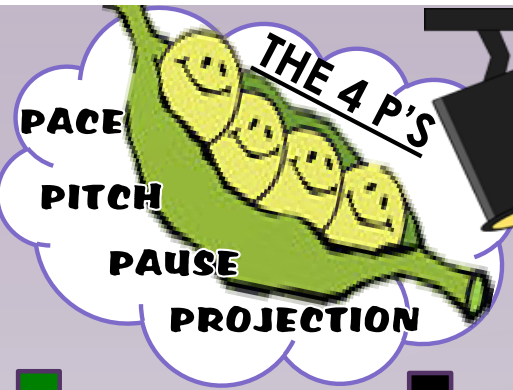
Task 3 - Describe what a computer bug is?

Task 4 - Describe what resilience is?

Task 5 - What is a subroutine?

Task 6 - Describe decomposition?

Task 7 - Describe what problem-solving means?



THE NEXT TWO SCHEMES ARE:

PHYSICAL THEATRE

New Skill/Technique **Retrieval**

Knowledge/ skill	Definition
Stimuli	The starting point, idea or inspiration for your devised **drama**. It is what you base your **drama** around.
Gesture	In **acting gesture** is **defined** as a sign that communicates a character's action, state of mind and relationship with other characters to an audience.
Still Image or Freeze frame	This is where the action freezes as if someone has taken a picture midway through a performance. Conveys meaning and highlights the current scene.
Body as Prop	A genre (type) of drama that tells a story using over exaggerated movement. and physicality. Body as Prop Using your body to create props and objects on stage.
Improvisation	A very spontaneous performance without specific or scripted preparation.
Transition	This is the process in which something changes from one state to another
Movement	Where we move to on and around the stage avoiding the blocking another actor.
Physical Theatre	**Physical theatre** is a well-known genre of theatrical performance that encompasses storytelling primarily through **physical** movement.
Role Play	Role play is the act of imitating the character and behaviour of someone who is different from yourself.
Promenade theatre	In promenade theatre there is no formal stage, both the audience and the actors are placed in the same space.
Narration	A commentary delivered to accompany a performance.
Slow Motion	Performing in manner whereby the action appears much slower than in real life.

Gecko Youtube Channel

What is promenade theatre?

What are the constraints of 'Theatre in The Round?'

What performance skills can we use to show emotion?

BUT DO ENJOY YOURSELVES!

WATCH LIST FOR THIS TERM (IF YOU CAN):

Frantic Assembly: What is Physical Theatre?

Gecko 'The Time of your life' 2016

Youtube Channel: DV8 Physical Theatre

KEY PERFORMANCE TERMINOLOGY FOR THIS TERM:

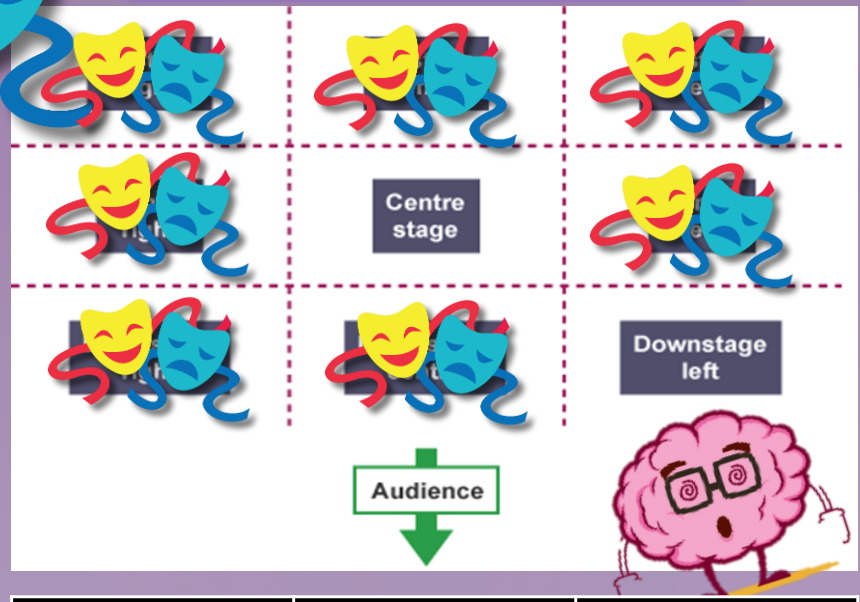
Physical Skills...(Skills that involve using your BODY)

1. Body Language	How an actor uses their body to communicate meaning. For example, crossing your arms could mean you are fed up.
2. Posture	The position an actor holds their body when sitting or standing. For example, an upright posture.
3. Gait	The way an actor walks.
4. Facial Expressions	A form of non-verbal communication that expresses the way you are feeling, using the face.
5. Gestures	A movement of part of the body, especially a hand or the head, to express an idea or meaning.
6. Stance	The way you position yourself when standing to communicate your role. An elderly person would have a different stance to a child!

Vocal Skills...(Skills that involve using your VOICE)

1. Projection	Ensuring your voice is loud and clear for the audience to hear.
2. Volume	How loudly or quietly you say something. (Shouting, whispering)
3. Tone	The way you say something in order to communicate your emotions. (E.g. Angry, worried, shocked tone of voice)
4. Pace	The speed of what you say.
5. Pause	Moments of pause can create tension, or show that you are thinking.
6. Accent	Use of an accent tells the audience where your character is from.
7. Pitch	How high or low your voice is.
8. Emphasis	Changing the way a word or part of a sentence is said, in order to emphasise it. (Make it stand out.) Try emphasising the words in capital letters and see how it changes the meaning: "How could YOU do that?" "How could you do THAT?"

Stage positioning



Week 1	Week 2	Week 3
Draw out the stage positioning grid and uncover our Drama faces!	Create an information poster on the Physical Theatre Company 'Frantic Assembly'	List the important skills/techniques needed for effective physical theatre

Week 4	Week 5	Week 6
Access the GCSE Bitesize Quiz	Watch a Gecko Performance on YouTube	Write a list of the skills you have explored/used this term – be proud!

Spanish - Key verbs and vocab

Key phrases

1. **Tengo el pelo rubio y corto** – I have short, blonde hair.
2. **Tengo los ojos verdes** – I have green eyes.
3. **Tengo tres peces** – I have three fish.
4. **Mi tortuga es muy tímida** – My tortoise is very shy.
5. **Me chifla escuchar música** – I'm crazy about listening to music.
6. **Odio jugar a los videojuegos** – I hate playing videogames.
7. **Siempre bailo** – I always dance.
8. **Nunca saco fotos** – I never take photos.
9. **Cuando hace calor leo** – When it's hot I read.
10. **Cuando nieva salgo con mis amigos** – When it snows I go out with my friends.
11. **¿Te gustaría ir al la piscina?** – Would you like to go to swimming pool?
12. **Lo siento, no puedo** – I'm sorry, I can't.

Me llamo Juan y tengo **doce** años. Tengo el pelo **castaño** y **largo** y los ojos **marrones**. Hay cuatro personas en mi familia y tengo una **serpiente verde**. Es muy **tímida**.
En mi tiempo libre **me encanta salir con mis amigos** o **leer** porque es **relajante** sin embargo **no me gusta chatear en línea** porque no es **entretenido**. Los martes siempre **monto en bici** y cuando hace buen tiempo **juego al fútbol** en el parque. En mi opinión **montar en bici** es **activo** pero nunca **bailo** porque es **aburrido**. A veces **hago natación** porque es muy **interesante**.

Para ir más lejos: (To go further…)

Link to BBC Bitesize

Your teacher should have given you your username and password for **Languagenut**. Log in and complete some of the revision games on there. It's great for practising speaking and listening skills!

Task 1: Practice key phrases 1-6 – look, cover, write, check, correct x 3. Read the sentences out loud to practice your pronunciation.

Task 2: Practice key phrases 7 -12 - look, cover, write, check, correct x3. Read the sentences out loud to practice your pronunciation.

Task 3: Pick one of the boxes of vocab from page 2 and draw a picture to represent each phrase in that box.

Task 4: Read through the model paragraph and translate what you can into English.

Task 5: Re-write the model paragraph, changing the underlined words and phrases. Try to do this without looking at the vocab!

Task 6: Teach it! Create a resource that will help teach others these key phrases. It could be a poster, a PowerPoint presentation, a leaflet or anything else. If you can, stick it in your home learning book.

Task 7: Write a paragraph about yourself FROM MEMORY! Then check it over with your red pen. Read it out loud to a member of your family to practice your pronunciation.

Spanish - Key verbs and vocab

Opiniones - opinions

Me gusta – I like
Me gusta mucho – I really like
Me encanta – I love
Me chifla – I'm crazy about

No me gusta – I don't like
No me gusta nada – I really don't like
Odio – I hate
No soporto – I can't stand

porque… - because
porque es… - because it is
porque no es… - because it isn't

interesante – interesting
guay – cool
divertido/a – funny / fun
estúpido/a – stupid
aburrido/a – boring
entretenido/a – entertaining
activo/a – active
sano/a – healthy
relajante – relaxing
emocionante - exciting

Actividades - activities

chatear en línea - to chat online
escribir correos - to write emails
escuchar música - to listen to music
jugar a los videojuegos - to play videogames
leer - to read
mandar sms - to send text messages
navegar por internet - to surf the net
salir con mis amigos - to go out with my friends
ver la televisión - to watch t.v
jugar al fútbol – to play football

El presente – present tense

bailo - I dance
canto karaoke - I sing karaoke
hablo con mis amigos - I talk with my friends
monto en bici - I ride my bike
saco fotos - I take photos
salgo con mis amigos – I go out with my friends
toco la guitarra - I play the guitar
hago artes marciales - I do martial arts
hago atletismo - I do athletics
hago equitación - I do/go horse riding
hago natación - I go swimming
juego al baloncesto - I play basketball
juego al fútbol - I play football
juego al tenis - I play tennis
juego al voleibol - I play volleyball

El tiempo –the weather

Cuando… - when
hace calor - it's hot
hace frío - it's cold
hace sol - it's sunny
hace buen tiempo - it's nice weather
llueve - it's raining
nieva - it's snowing

Adverbios de tiempo – Time phrases

A veces - sometimes
De vez en cuando - From time to time
Nunca - never
Todos los días - everyday
Siempre – always

Los lunes - On Mondays, every Monday
Los martes – On Tuesdays, every Tuesday
Los miércoles – On Wednesdays, every Wednesday
Los jueves – On Thursdays, every Thursday
Los viernes – On Fridays, every Friday
Los sábados – On Saturdays, every Saturday
Los domingos – On Sundays, every Sunday

En primavera – in Spring
En verano – in Summer
En invierno – in Winter
En otoño – in Autumn

Year 7
William Shakespeare
Romeo and Juliet

Structure and Form

Term	Definition
Prologue	An introductory section to a piece of literature or drama.
Rhyming couplet	Two lines of the same length that rhyme.
Soliloquy	A character speaking alone, voicing their thoughts out loud.
Aside	A comment made by a character, only to be heard by the audience.

Themes

Theme	Description
Fate	**Fate** is something that is meant to happen. In the play, this is Romeo and Juliet's relationship.
Love	The main point of the plot is that Romeo and Juliet fall in **love**.
Conflict	The Montagues and the Capulets have an ongoing feud, which results in **conflict** and violence.
Religion	Shakespeare uses religious imagery to show the purity of Romeo and Juliet's love. **Example**: *"O speak again, bright **angel**"*

Characters

Character	Description
Romeo Montague	Young and romantic. Falls in love with Juliet.
Juliet Capulet	Beautiful and naïve. Falls in love with Romeo.
Benvolio Montague	Cousin and protector of Romeo.
Tybalt Capulet	Violent and spiteful cousin of Juliet.
Mercutio	Best friend of Romeo. Neither a Montague nor a Capulet.
Friar Lawrence	Marries Romeo and Juliet with hopes to end the families' feud.

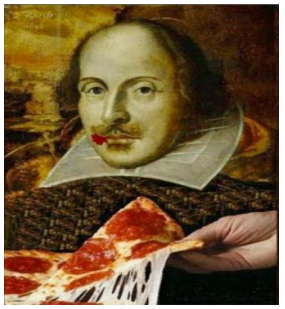
Literary Terms

Term	Definition
Simile	A comparison using the words 'like' or 'as' **Example:** *"My bounty is **as** boundless **as** the sea"*
Metaphor	A description saying something is something else **Example:** *"**I am** the East and Juliet **is** the sun."*
Personification	Giving human qualities to something that us not human. **Example:** *"Then love-devouring **death** do what **he** dare."*
Foreshadowing	A hint at what is to come next. **Example**: Friar Lawrence discusses "violence" just before a fight scene.
Rhyme	Words that sound similar. **Example:** *"Did my heart love till now, forswear it **sight**, For I ne'er saw true beauty till this **night**."*
Sonnet	A poem of 14 lines, usually to express love. **Example:** Romeo and Juliet's first conversation is written in sonnet form.

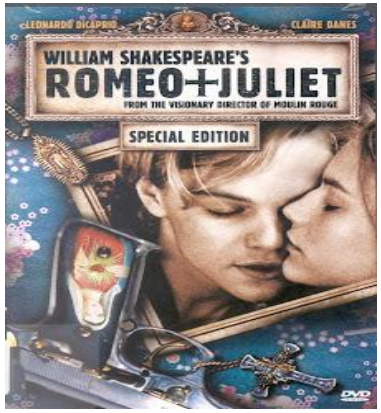
Romeo and Juliet Home Learning - Shakespeare

Research five things about William Shakespeare	Create a information poster about William Shakespeare and find out about three of his plays.	Research William Shakespeare's life. Write a short pamphlet with sub-headings that tells you about his life.
Create a family tree for the characters in Romeo and Juliet.	Research the key themes in Romeo and Juliet and create Theme Cards for each one.	Create an advertising campaign for The Globe Theatre. You need to include a logo, a slogan and a production poster for the play.
Research the key themes of Romeo and Juliet and create your own Knowledge Organiser	Research the treatment of women in the time Romeo and Juliet was set. How has it changed?	What was the legal age for marriage in Elizabethan times? Write an argument for why this should be raised.
Find out what 'foreshadowing' is and research how this is used in the play.	Which house would you belong to: Montague or Capulet? Why? (at least three reasons/paragraphs)	Create a poster showing how symbolism is used in Romeo & Juliet.
Create an ingredients list and method for creating the poison.	Create a rhyming poem that helps you remember the key characters.	Create a new character to be included in the play. Explain their importance and what influences they would have.
Create a new character to be included in the play. Explain their importance and what influences they would have.	Imagine you are Lady Capulet. Write a letter to an agony aunt asking for advice about your wayward daughter.	Write an alternative ending to the play. Do not use 'happily ever after'.
Create a 10 frame storyboard of the play	Create a 10 frame storyboard of the play	Create a set of Top Trump cards for each of the characters in the play.

Easy Difficult Challenging



Click on the QR code to take you to BBC Bitesize revision for Romeo and Juliet



Key process- erosion

Abrasion- This is the process by which the bed and banks are worn down by the river's load. The river throws these particles against the bed and banks, sometimes at high velocity.

Hydraulic Action- This process involves the force of water against the bed and banks.

Solution (Corrosion) - This is the chemical action of river water. The acids in the water slowly dissolve the bed and the banks.

Attrition- Material (the load) carried by the river bump into each other and is smoothed and broken down into smaller pieces.

Key process- transportation

Traction - Where large rocks and boulders are rolled along the river bed.

Saltation - Where smaller stones are bounced along the river bed in a leap frogging motion.

Suspension- Where very small grains of sand or silt are carried along with the water.

Solution - Where some material is dissolved (like sugar in a cup of tea) and is carried downstream.

Key process- deposition

When a river loses energy, it deposits (drops) its load.

The hydrological cycle- key terms

Evaporation-The change of water from a liquid to a gas.

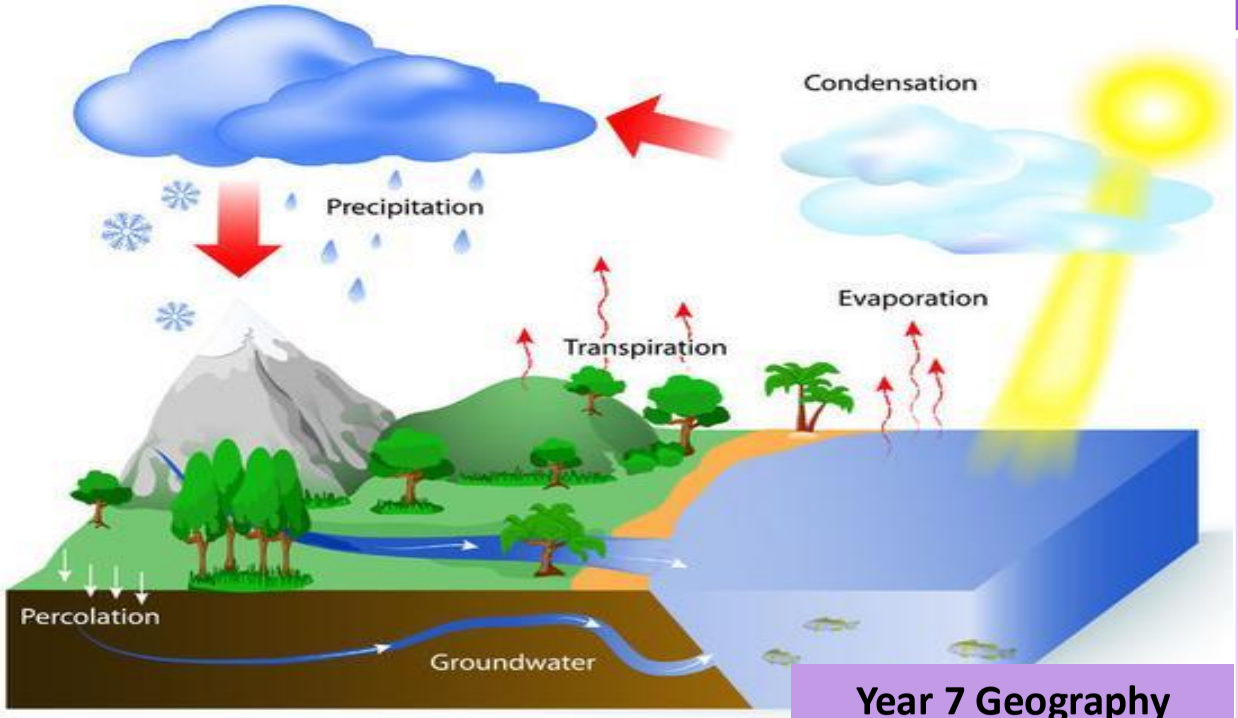
Condensation- The change of water from a gas to a liquid.

Precipitation- Water falling from the sky (e.g. rain, sleet, hail, snow).

Transpiration- The release of water vapour from the leaves of trees of plants.

Throughflow- Flow of water though the soil.

Infiltration- When water soaks down through the ground.

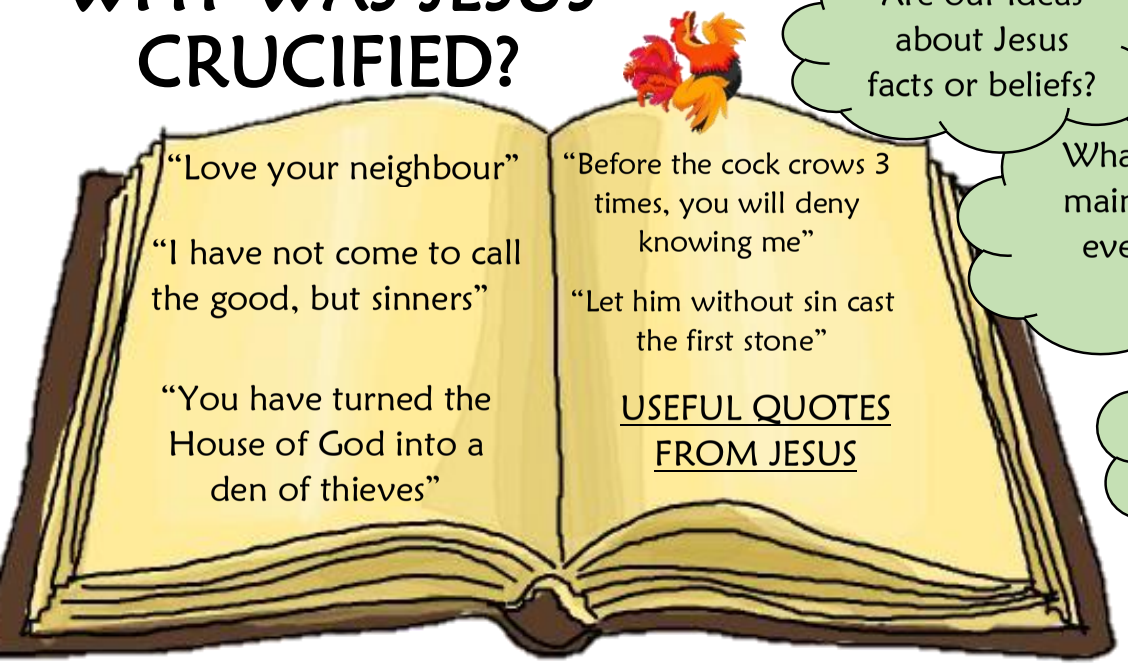


Tasks- if you complete all 7, revisit some or all from memory

Task 1: Learn the key processes of erosion.
Task 2: Learn the key processes of transportation.
Task 3: Revise the diagram of the hydrological cycle, then cover it and draw the diagram from memory, then self assess and add any detail you have missed.
Task 4: Learn the key terms linked the hydrological cycle.
Task 5: Draw 4 small diagrams that help you remember the key processes of transportation.
Task 6: Create a quiz linked to erosion, transportation and deposition. Max 10 questions.
Task 7: Extension- find out what the key terms percolation and groundwater mean and write down a definition for each. Make sure the definitions link to rivers & geography.

Year 7 Geography

WHY WAS JESUS CRUCIFIED?



As we study think about…

reflection questions

- Are our ideas about Jesus facts or beliefs?
- What was Jesus' main purpose in everything he did?
- How did Jesus challenge people?
- Why did people follow Jesus?
- Why did some people hate Jesus?
- Why is the crucifixion and resurrection important for Christians?

KEY WORDS:

MIRACLE	A surprising event that defies natural laws	PARABLE	A story with a meaning, used by Jesus to communicate ideas about God
SABBATH	The Jewish holy day of rest and worship	BLASPHEMY	Saying something that is against God or making yourself equal to God
CRUCIFIXION	Being put to death by hanging on a cross. It was the worst punishment the Romans would give	TREASON	Saying something that is against the ruler/king or making yourself equal to the ruler/king
RESURRECTION	Coming back to life after you have died	PHARISEE	A Jewish holy man, responsible for teaching people about God
PROPHECY	Using the power of God to predict something that will happen in the future	FORGIVENESS	Having your sins taken away and no longer being responsible for something bad you have done
SIN	A bad action that goes against God's law	SAMARITAN	A person coming from Samaria (disliked by the Jews)

SOME TASKS FOR YOU TO COMPLETE

1. *Create a timeline of Jesus's last week*
2. *Create a mind map of the things Jesus did. Add the criticisms in a different colour*
3. *Draw a symbol for each key word*
4. *Write your answers to 3 reflection questions*
5. *Create a symbol for each of Jesus' teachings*
6. *Create key word flash cards or a quiz*
7. *Retell the Good Samaritan story in 4 images or less*

WHAT JESUS SAID:

- You can only judge people if you are perfect
- You should put God above everything in your life
- He came to help people who want to change
- We should love and help people in need

BUT…

- Sometimes we compare ourselves to others to improve our self-esteem
- Family and friends are important too
- Sometimes we don't want to change
- It's hard to be kind to people who we don't like or who treat us badly

THE PARABLE OF THE GOOD SAMARITAN

Teaches that we should love others and help them, WHOEVER THEY ARE

A Jewish man was left for dead on the road by robbers. A Jewish priest and a Levite walked past but did not help him. The man that finally helped him was a Samaritan (his enemy). He took him to safety and paid for him to be looked after.

WHAT JESUS DID:

- Jesus told a man his sins were forgiven
- He healed a man's hand on the Sabbath
- He rode into Jerusalem and was treated like a king
- He smashed up the stalls in the temple because they were disrespectful to 'God's house'

BUT…

- Only God can forgive sins
- Jews are forbidden to do anything on the Sabbath except worship God
- He is challenging the Romans because Caesar was king
- It is making the Pharisees angry because he is criticising them

THE MIRACLE OF HEALING THE PARALYSED MAN

Some men lowered a paralysed man through a roof to Jesus. He wanted to heal him so said, "Your sins are forgiven" but the Pharisees were not happy because it was blasphemy as only God can forgive sins. Jesus responded by instead telling the man to get up and walk and the man was healed.

Shows that Jesus has God's power to heal and forgive sins

Jesus' Last Week

SUNDAY: Jesus arrived in Jerusalem. People praised him as a **king and a saviour** but this **challenged the Romans** and the **Jewish leaders** who didn't believe he was a saviour. He smashed up the temple which angered the Jewish leaders who ran it.

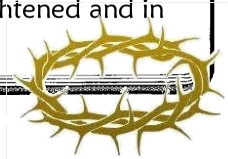
People were confused by Jesus' claims that he could **rebuild the temple in 3 days**. This seemed to be a challenge to them that he would destroy their building but many now see it as **a prophecy** by Jesus about what he would accomplish by dying and then resurrecting.

THURSDAY: At the last supper Jesus **predicted his own death,** saying that the bread was his body and the wine was his blood. He also said that Judas would betray him and told Peter that he would **deny knowing him.**

He was arrested in Gethsemane and taken to the Chief Priest's house where he was accused of **blasphemy.** They found him guilty but couldn't punish him so they took him to the Roman leader, Pilate and charged him with **treason.** Pilate could not find him guilty but sentenced him to be whipped and crucified.

FRIDAY: Jesus was **crucified**. He was humiliated as he carried his cross through the streets then on the cross he shouted **"My God, why have you given up on me?"**

He asked John to look after his mother then said **"It is finished"** and he died. The sky turned black and the disciples hid away because they were frightened and in despair.



SUNDAY: Mary and some other women went to the tomb and found it empty. The stone had been rolled away and the burial cloth was neatly folded. When Peter, James and John went and an angel told them Jesus had risen: **"Why do you look for the living among the dead?"**

Jesus appeared to many people. He **ate** with them, he **showed them his scars** and he **talked** to them about his life and death

ART KNOWLEDGE ORGANISER

Topic: Pop Art. Creating Pop Art inspired outcomes using paint and printmaking techniques

YEAR 7 Term 2: (January-March) Pop Art project

History/Context:

Pop art, or popular art, was an art movement of the 1950s and 60s in America and Europe. It made use of popular imagery, such as comics, films, advertising and household objects.

Pop Art is characterized by bright colours such as red, blue and yellow, as well as images of celebrities or fictional characters from TV or comics, particularly in Roy Lichtenstein's body of work.

Some of the most famous pop artists included Richard Hamilton, David Hockney and Jasper Johns. Another well known pop artist was Peter Blake who designed one of the Beatles' album covers.

Andy Warhol was the most famous pop artist. His work consisted of prints using repeated images of familiar images from everyday life, including banknotes, soup tins and Marilyn Monroe.

Another well known pop artist was Roy Lichtenstein. His paintings and prints looked just like comic strips, including his most well-known work entitled *Whaam!*

Some pop art works are among the most expensive paintings ever sold. In 2010 a painting of the American flag by Jasper Johns sold for about £70 million.

London's Tate Gallery is one of the best places to see pop art, along with New York's Museum of Modern Art.

Pop art is one of the most instantly recognisable forms of art. The Pop art movement aimed to show the idea that art can draw from any source, in particular everyday objects.

Home Learning tasks:

Week 1: AP 1 Revision Create an artistic mind map and add as many words as you can about the Pop-Art movement. Add your key literacy words and maybe some small drawings. Look for about 30 words on the page!

Week 2: Practice key literacy vocab 1-5 – look, cover, write, check, correct x 3. Read the sentences again and check for understanding.

Week 3: Practice key phrases 6 -10 - look, cover, write, check, correct x3. Read the sentences again and check for understanding.

Weeks 4/5: Research the work of Roy Lichtenstein, try to find out a little bit about how he created his work, what inspired him and pick out one of your favourite drawings of his and write about what you like about the piece and why. Research the work of British Pop Artist Peter Blake. Try to find some examples of different album covers that he has produced designs for over the years.

Weeks 6/7: Create a page of pop-art patterns inspired by the work of different pop-artists. The images below may help you.

Weeks 8/9: Research the work of Andy Warhol, try to find out a bit about how he created his work and what inspired him. Pick a selection of his work and produce a drawing of your favourite one.

Weeks 10/11: Create your own Andy Warhol inspired piece of work at home using an everyday object. This could be a food can, a drinks bottle or even a favourite item of clothing!

Key Literacy Vocabulary:

Post war – After the war.

Consumerism – Practice of buying products – culture that values buying products.

Mass Production – Manufacturing of the same product / identical products being produced quickly.

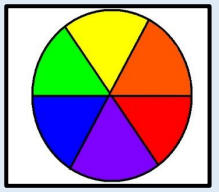
Marketing – More need to advertise – industry ads took off.

Mass media – Influence, 1950 more common for TV to be in every home in America.

Popular Culture - Popular culture can be understood as a set of cultural products, practices, beliefs, and objects which dominates society and influences them.

Celebrity – TV creating icons – eg: Marilyn Monroe.

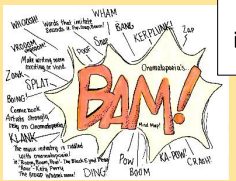
Colour Wheel - Shows the relationships between primary colours and secondary colours.



Comic Strips – A sequence of drawings in boxes that tell an amusing story, typically printed in a newspaper or comic book.

Irony and satire - Humor was one of the main components of Pop art.

Week 1(Mind Map)



Use these examples as inspiration

Weeks 4/5(Artist Research)

You can find out some more about Roy Lichtenstein and Peter Blake on these websites.

Weeks 6/7 (Pop-Art Patterns)

To help you with your designs

Weeks 8/9 (Artist Research)

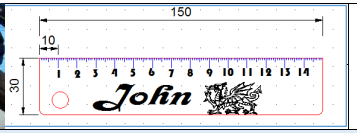
You can find out some more information about Andy Warhol on this website.

Weeks 10/11 (Andy Warhol Piece)

Use this link to help you get started.

DESIGN TECHNOLOGY KNOWLEDGE ORGANISER

Topic: CAD/CAM Ruler Project



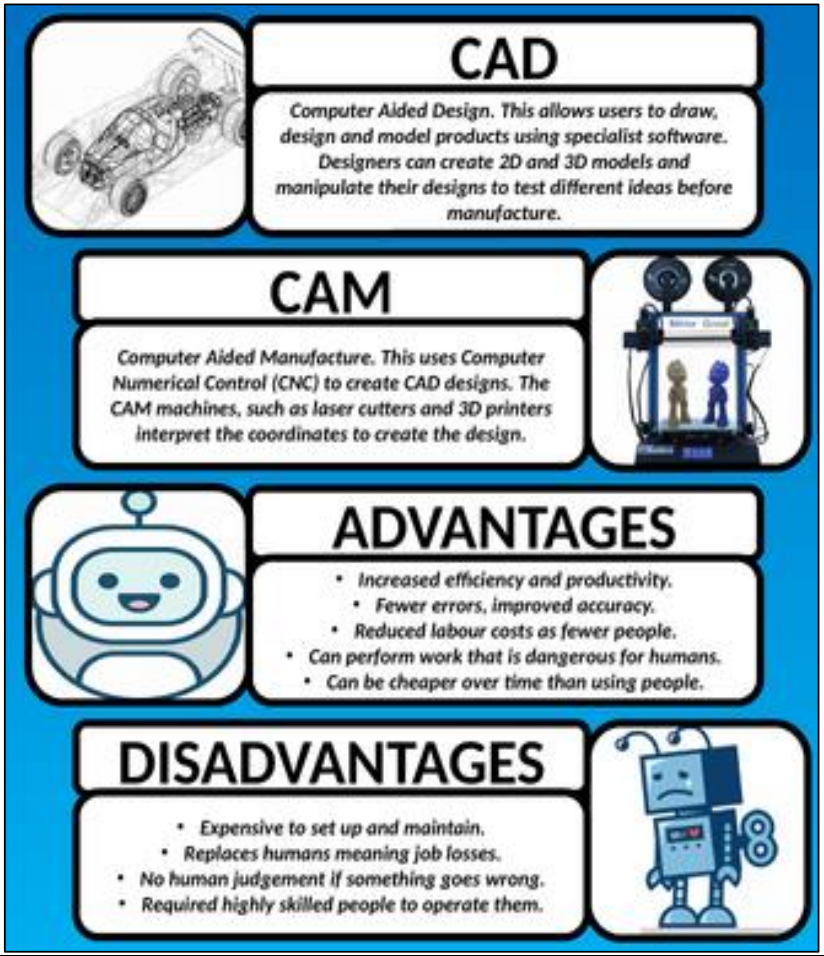
YEAR 7 DT

Computer aided design - CAD

Design software such as 2D design or Sketchup, allow the designer to draw a product in detail. Products can be designed and modified quickly. CAD allows for the testing of prototypes during the design process, without the need to make it.

Computer aided manufacture - CAM

Once a prototype design has been produced, it can be manufactured on a CNC machine or Laser Cutter. Computer Aided Manufacture (CAM) has meant that products and components can be made repeatedly to the same high standard.



Focused Topics

THERMOSETTING PLASTICS

THESE ARE PLASTICS THAT ONCE HEATED AND MOULDED, CANNOT BE REHEATED AND REMOULDED. THE MOLECULES OF THESE PLASTICS ARE CROSS LINKED IN THREE DIMENSIONS AND THIS IS WHY THEY CANNOT BE RESHAPED OR RECYCLED. THE BOND BETWEEN THE MOLECULES IS VERY STRONG.

UREA FORMALDEHYDE	SOME ADHESIVES (GLUES)	POLYESTER RESINS
POLYURETHANE	SILICONE	MELAMINE FORMALDEHYDE
BAKELITE	MELAMINE RESIN	DUROPLAST

THERMOPLASTICS

THESE PLASTICS CAN BE RE-HEATED AND RE-SHAPED IN VARIOUS WAYS. THEY BECOME MOULDABLE AFTER REHEATING AS THEY DO NOT UNDERGO SIGNIFICANT CHEMICAL CHANGE. REHEATING AND SHAPING CAN BE REPEATED. THE BOND BETWEEN THE MOLECULES IS WEAK AND BECOMES WEAKER WHEN REHEATED, ALLOWING RESHAPING. THESE TYPES OF PLASTICS CAN BE RECYCLED.

ACRYLIC (KNOWN ALSO AS PERSPEX)	POLYPROPYLENE (PP)	NYLON
POLYVINYL CHLORIDE (PVC)	LOW DENSITY POLYTHENE (LDPE)	
POLYSTYRENE	HIGH IMPACT POLYSTYRENE (HIPS)	TEFLON

Key Terms

Automation- Using automatic equipment in production – e.g. robots

Computer aided design (CAD)-The process of creating a 2D or 3D design using computer software.

Computer aided manufacture (CAM)-The manufacture of a part or product from a computer aided design (CAD) using computer-controlled machinery, such as a 3D printer.

Laser cutting- a technology that uses a laser to cut materials

Thermoplastic- types of plastic which become soft when they are heated

Tasks

Task 1: Create a mind map about CAD/CAM..

Task 2: Learn the key words and the definition.

Task 3: Create 6 questions that can be answered from the information on the knowledge organiser.

Task 4: Create a quiz based on task 1, 2 or 3. Get someone to test you.

Task 5: Create a mind map for the information you remember and red pen anything you've forgotten.

Task 6: Teach it. Create a task that can be used to teach some of the information from here.

To go further:

Introduction to 3D modelling: SketchUp

Precious Plastic - The basics of plastic

Week One

Using the **Cells** Knowledge organiser draw and label an *animal and plant cell* in your home learning book.

Under each label give details for the function of each organelle.

Week Two

Read your knowledge organiser focusing on **Cells** for 5 minutes. Turn to the page labelled **Cells Key Questions**.

Cover the answers or cut the page out and fold down the middle line.

Answers questions 1-8 in full sentences.

Mark your own work using the answers.

Week Three

Read your knowledge organiser focusing on **Cells** for 5 minutes. Turn to the page labelled **Cells Key Questions**.

Cover the answers or cut the page out and fold down the middle line.

Answers questions 9-15 in full sentences.

Mark your own work using the answers.

Week Four

British Science Week!!

Turn to the information page about this years BSW which is themed 'Time' to find your activity for the week.

Week Five

Read your knowledge organiser focusing on **Cells** for 5 minutes. Turn to the page labelled **Cells Key Questions**.

Cover the answers or cut the page out and fold down the middle line.

Answers questions 16-23 in full sentences.

Mark your own work using the answers.

Week Six

Read your knowledge organiser focusing on **Cells** for 5 minutes. Turn to the page labelled **Cells Key Questions**.

Cover the answers or cut the page out and fold down the middle line.

Answers questions 24-30 in full sentences.

Mark your own work using the answers.

Have you completed your 4 daily goals?

Completion of your 4 daily goals this week will help progress! 😉

Home learning tips:

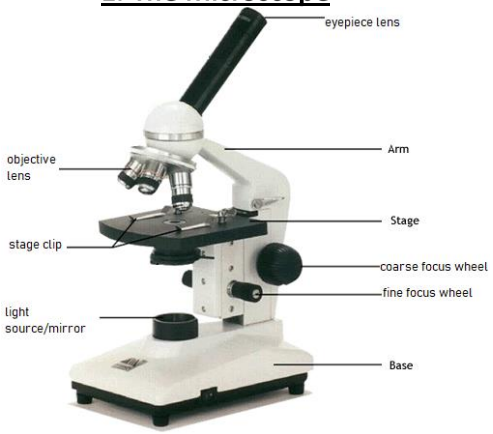
1. Answer any questions in full sentences.
2. Take your time reading through your knowledge organiser.
3. Read the task twice.
4. Ask your teacher in your next lesson if you are unsure about anything.
5. Not sure which week to do? Ask your teacher!

7.6 – Cells

What do I need to be able to do?

- Understand cells as the fundamental unit of living organisms
- Describe the functions of the cell wall, cell membrane, cytoplasm, nucleus, vacuole, mitochondria, ribosomes, and chloroplasts
- Compare the similarities and differences between plant and animal cells
- Understand the role of diffusion in the movement of materials in and between cells
- Identifying areas of high and low concentration to predict the movement of particles by diffusion
- Explain the structural adaptations of some unicellular organisms
- Describe the cycles of materials and energy
- Observe, interpret, and record cell structure using a light microscope

1. The Microscope



Eyepiece lens	Magnifies the sample
Objective lens	Magnifies the sample
Stage clip	Holds the slide in place
Light source/mirror	Directs light through the sample to illuminate it
Coarse focus wheel	Brings the specimen into approximate focus
Fine focus wheel	Sharpens the focus quality of the image

2. Using the Microscope

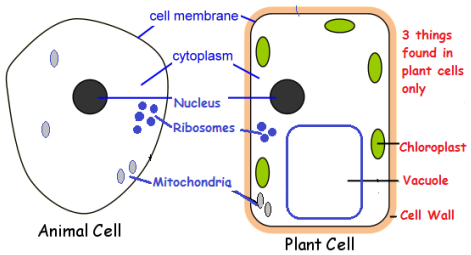
1. Carry the microscope with one hand holding the **arm** and one under the **base**
2. If necessary, plug in and turn on the microscope
3. Rotate the **nosepiece** and select the lowest power **objective lens**
4. Place the **specimen slide** onto the **stage** and clip in place
5. Look through the **eyepiece lens** and turn the **coarse focus wheel** until the specimen comes into view – take care not to get too close to the slide
6. Adjust the **fine focus wheel** until the image in view becomes clear
7. To view the specimen in more detail – rotate the nosepiece to a higher power objective lens and repeat steps 5 and 6

To calculate the total magnification of the image:
Total magnification = eyepiece lens power x objective lens power

To calculate the actual size of the specimen:
Actual size = image size ÷ total magnification

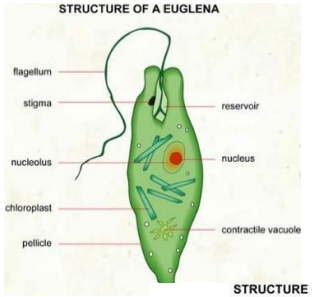
The image size (the size the specimen appears in the microscope view after magnification) can be measured using a ruler

3. Plant & Animal Cells

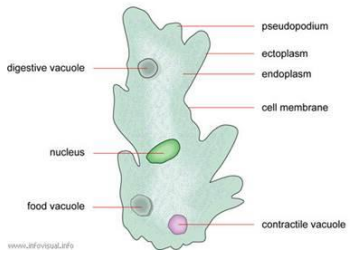


Nucleus	Contains the genetic information (DNA) that controls the activities of the cell
Cytoplasm	Gel-like substance where chemical reactions occur
Cell membrane	Controls what substances enter/leave the cell
Mitochondria	Where respiration occurs
Ribosomes	Where proteins are made
Chloroplasts	Where photosynthesis occurs
Vacuole	Filled with cell sap that keeps the cell firm
Cell wall	Supports the cell

4. Unicellular Organisms



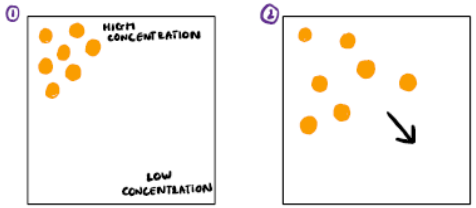
Flagellum helps the euglena to move around



An amoeba surrounds and engulfs food

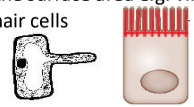
5. Diffusion

Substances enter cells from the blood stream, across the cell membrane, via **diffusion**. Substances leave cells by the same method



Hint – see 7.2 Particles & Their Behaviour

Cells are adapted to increase the efficiency of diffusion into and out of the cell by having folded membranes to increase the surface area e.g. villi epithelial cells and root hair cells



6. Respiration

Respiration is the chemical reaction in which energy is released from glucose

Aerobic Respiration	Anaerobic Respiration
Occurs in the presence of oxygen	Occurs with limited/no oxygen
Glucose + oxygen → carbon dioxide + water (+ energy)	**Animal cells:** Glucose → lactic acid (+ energy) **Plant cells and Yeast (unicellular organism):** Glucose → ethanol + carbon dioxide (+ energy)
✔ releases a lot of energy	✔ energy can be released quickly (e.g. when sprinting) and is not reliant on the delivery of oxygen to cells
✘ reliant on a constant supply of oxygen to cells	✘ releases a lot less in energy in comparison. Lactic acid causes pain and cramps

7. Specialised Cells

Not all plant and animal cells look like those above. Some have different features that make it better adapted to its function. They are specialised.

Cell	Diagram	Function	Features
Red Blood Cell		To transport oxygen to respiring cells	No nucleus to maximise surface area
Sperm Cell		To carry DNA to the egg cell	Lots of mitochondria 'Tail'
Palisade Cell (leaf cell)		Absorb light for photosynthesis	Lots of chloroplasts
Root Hair Cell		Absorb water and mineral ions	Large surface area Lots of mitochondria

Cells – Key Questions

Questions

1. State the 5 sub-cellular organelles in an animal cell
2. State the 8 sub-cellular organelles in an plant cell
3. State the function of the mitochondria of a cell
4. Define "diffusion"
5. What do we mean by dynamic equilibrium?
6. Which substances diffuse into and out of cells?
7. State three adaptations of red blood cells
8. State two adaptations of muscle cells
9. State the function of ciliated epithelial cells
10. State an adaptation of a palisade cell
11. State the function of the cell wall of a cell
12. State the function of the cell membrane of a cell
13. State the function of the cytoplasm of a cell
14. State the function of the nucleus of a cell
15. State two functions of the vacuole of a cell
16. Define "eukaryotic cell"
17. What are the main parts of a light microscope?
18. Why is Robert Hooke associated with microscopes.
19. How do we calculate the total magnification of a light microscope?
20. What do we call living things made of only one cell.
21. Name the pigment in chloroplasts that absorbs light.
22. What is the word equation for Photosynthesis?
23. What is the symbol equation for Photosynthesis?
24. What are he adaptations of a root hair cell?
25. What is the function of a root hair cell?
26. What are the roles of the food vacuole and pseudopoda in amoeba?
27. What are the roles of the eye spot and flagellum in euglena?
28. What is the word equation for aerobic respiration?
29. What is the word equation for anaerobic respiration in animals?
30. What is the word equation for anaerobic respiration in yeast?

Answers

1. Nucleus, cell membrane, ribosomes, cytoplasm, mitochondria.
2. Nucleus, cell membrane, ribosomes, cytoplasm, mitochondria, cell wall, chloroplast and vacuole
3. Where aerobic respiration occurs in a cell
4. The movement of particles from a high concentration to a low concentration
5. dynamic equilibrium means that molecules still move across a cell membrane but the concentrations remain equal on each side.
6. Oxygen, glucose, carbon dioxide and water diffuse into and out of cells.
7. Red Blood Cells have a large surface area, no nucleus and lots of haemoglobin.
8. Muscle cells have protein fibers to contract and relax and lots of mitochondria to provide energy from aerobic respiration.
9. Ciliated epithelial cells move mucus out of airways.
10. Palisade cells have lots of chloroplasts for photosynthesis
11. Provides support for the cell
12. Controls what enters and leaves the cell
13. Where chemical reactions occur in a cell
14. Contains DNA and controls the function of the cell
15. Stores minerals and sugars and gives structure
16. DNA contained in a nucleus
17. The base, diaphragm, objective lens, eyepiece lens, coarse focus, fine focus, stage.
18. Robert Hooke produced the first sketches of microscope images in his book "Micrografia". He also came up with the term "cells".
19. You calculate total magnification by multiplying eyepiece magnification by objective magnification.
20. Unicellular organisms consist of only one cell.
21. Chlorophyll is the pigment in chloroplasts that absorbs light.
22. Carbon Dioxide + Water --> Glucose + Oxygen
23. $CO_2 + H_2O \rightarrow C_6H_{12}O_6 + O_2$
24. Root hair cells have a large surface area and no chloroplasts.
25. The function of a root hair cell is to absorb water and minerals from the soil.
26. The function of the food vacuole is absorption and digestion of food, the pseudopoda all movement to take place.
27. The eye spot detects light and the flagellum allows movement.
28. Glucose + Oxygen --> Carbon Dioxide + Water
29. Glucose --> lactic acid
30. Glucose --> ethanol + carbon dioxide

BRITISH SCIENCE WEEK

The theme this year for British Science Week is 'Time!' It's the 30th anniversary of British Science Week – we want you to celebrate this huge milestone with us, thinking about time since the Week began, and looking to the future!

The theme this year is **'Time'**, – there are loads of STEM topics to be explored! Students could create a poster showing how a certain type of technology has changed over time, or even the advancement of time-telling technology itself. Budding poster makers could also go futuristic show us how they think the world might look in years to come, or perhaps look at nature – lifecycles, lifespans, evolution and hibernation – nature is full of timely topics.

Your task this week is to create an A4 poster about TIME.
Posters should be bright and colourful!!

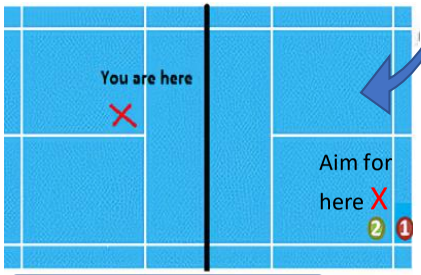
You are welcome to join Miss. Robinson in C505 after school on Wednesday to use pencils and coloured paper to create your masterpiece.

The Science department will be sending the 5 best posters to a national competition where you could win a prize!!!

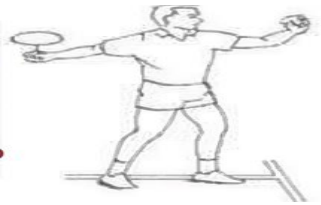
Badminton Singles

Forehand serve

- Stand side on to the net behind the service line.
- Hold the shuttle by the feathers with your finger and thumb.
- Point your non racket shoulder towards your target
- Hold the racket just above waist height behind you.
- As you drop the shuttle swing your racket towards the shuttle and hit it with the open racket face based on your power and follow through it will be a short or long serve.



Forehand service stance

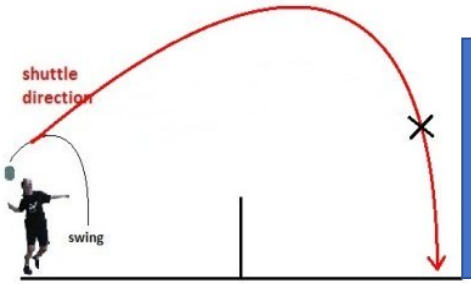


Overhead clear

1. Move into position and get behind the shuttle. Adopt the Forehand Grip.
2. Raise your Racket Arm and Non-Racket Arm.
3. Your body should face sideways with your feet pointing slightly sideways.
4. Stretch your Racket Arm to as far back as possible. Stretch out your Non-Racket Arm. Inhale. Then Exhale as you swing your racket forward.
5. Take the shuttle at the Highest Point possible.

Contact Point: In step 1, you should place yourself right below the shuttle. So when you hit the shuttle, your swing will naturally direct the shuttle upwards.

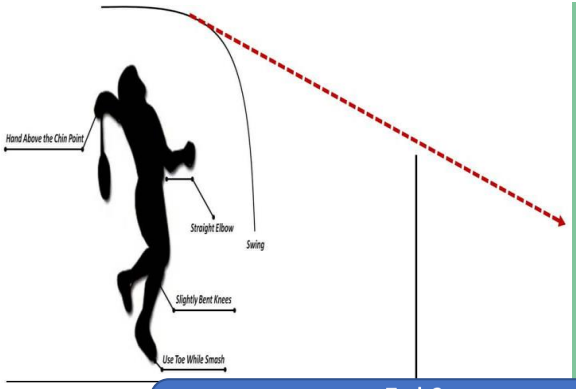
6. Complete a Full Arm Swing. Follow through with your swing even after you hit the shuttle.



Task 1
Without looking remember the name of the 4 shots above.

Smash shot

•Raise your non-racket hand and point it above your chin. This is highly crucial, for a angled shot. It has part to play in the direction and pace of your shot.
•You should shift your weight on to your back foot, for balance.
•Straighten your elbows and swing the racket forward. Keep in mind to shuffle your racket foot forward and knees should be slightly bent.



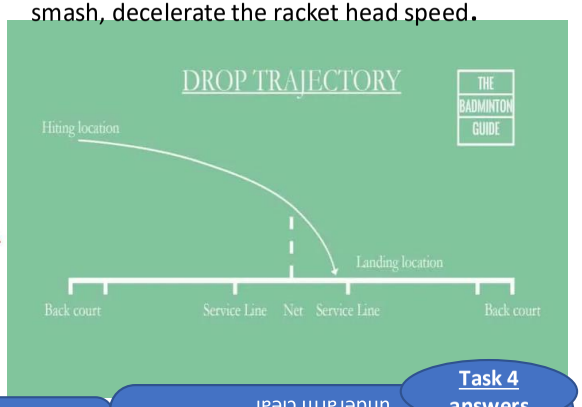
Task 2
Watch the video and describe how the shot is performed and when would be as good time to use this shot

Badminton Drop Shot

Task 3
Watch the video and describe how the shot is performed and when would be as good time to use this shot

Drop Shot

Both of your hands should be upwards in the air, with the non-racket arm in front of your body, and the racket arm needs to be behind your head. The body weight should be on your racket leg.
When the shuttle comes closer, you need to extend your non-racket arm and rotate the hip and shoulders towards facing the net. Hit the shuttle gently with the shuttle just in front of your body, but still high in the air. Unlike a smash, decelerate the racket head speed.



Task 4
1)True or False. All lines are in on the badminton court in singles.
2) True or False. If you have an even score you stand on the right and serve to the right.
3)List 4 shot types in badminton

Task 4 answers
1. 1) False
2. False
3. Any of the following: Drop shot, serve, backhand, forehand, overhead clear, underarm clear

Key words:
Smash shot
Drop shot
Serve
Overhead clear
Backhand

Table tennis

Smash shot

•Face sideways with your shoulder pointing towards the target.
•Body weight should be on the back foot.
•Raise the racket to a high position to generate downwards and forwards power.
•As the ball bounces off the table, rotate your body quickly to face forwards.
•Aim to hit the ball at its highest point.
•Transfer body weight from back to front foot.

Top spin shot

- Your legs should be more apart than your shoulders and knees slightly bent.
- As the ball approaches you, rotate body towards the direction you are playing the shot and at the same time forward your bat from knee height to head height.
- The movement of your bat should be upward as well as forward.
- Hit on the top of the ball at the top of the bounce. This gives the forward spin making the ball speed up when it bounces.

Bat over the top of the ball (finishing position)

Key words:
- Smash shot
- Drop shot
- Serve
- Topspin
- Backhand
- Reaction time
- Coordination

Drop Shot

- A drop shot is a type of shot in table tennis in which the ball is hit softly and lands near the net. Table tennis is a sport that has a type of shot called “drop shots.”
- These shots are hit softly and with a lot of touches, so the ball just clears the net and stays low.

Task 1
Without looking can you recall the name of each of the 3 shots.

Task 2
Get someone to show you the 3 pictures and you have to match up watch shot is being performed

Task 4
Watch the video and describe how the shot is performed and when would be as good time to use this shot

Table tennis Smash Shot

Task 3
Components of fitness are always applied in our PE lessons so we can perform to the best we can be. There are 3 components of fitness hidden in the word search for table tennis which are crucial to play the sport.
Without looking, list what the 3 main component of fitness are.

Table Tennis

Task 5

O	S	E	R	V	E	I	I	E	L	O	R	H	F
V	C	H	H	P	K	V	O	K	N	E	N	E	I
N	O	T	G	G	O	T	I	N	R	O	T	A	O
O	O	C	N	N	R	O	P	F	N	P	I	A	S
I	R	B	I	A	I	H	A	H	I	I	T	G	A
T	D	A	N	G	T	S	N	P	P	E	O	I	O
C	I	C	O	N	S	P	I	I	S	I	N	L	O
A	N	K	I	E	E	O	P	T	K	O	I	I	R
E	A	H	T	T	N	R	S	S	C	B	H	T	P
R	T	A	I	O	T	D	P	E	A	G	A	Y	S
T	I	N	S	C	G	V	O	P	B	H	S	P	O
O	O	D	O	S	H	S	T	I	M	B	V	S	E
K	N	D	P	N	E	N	C	G	S	C	H	S	A
C	F	O	R	E	H	A	N	D	S	M	A	S	H

DROPSHOT
LET
FOREHAND
BACKSPIN
POSITIONING
TOPSPIN
AGILITY
SERVE
COORDINATION
REACTION
BACKHAND
SMASH

Task 3 answers
3 components of fitness
Agility
Coordination
Reaction

SCAN ME

Learning to Learn

SCAN ME

The 'Listen' Project #1