



Need ● ● ●
toKNOW
LOOE COMMUNITY ACADEMY

Year 8
Autumn 1

*Be the
BEST
you can be*

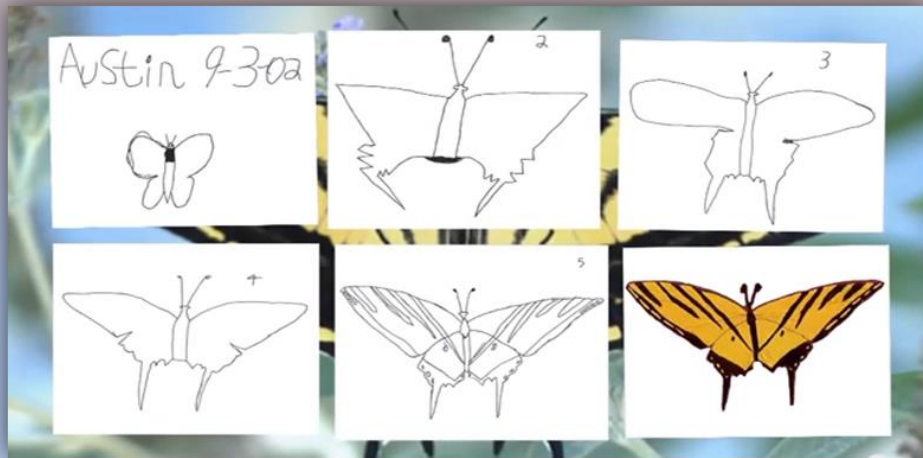




**Need
toKNOW**
LOOE COMMUNITY ACADEMY

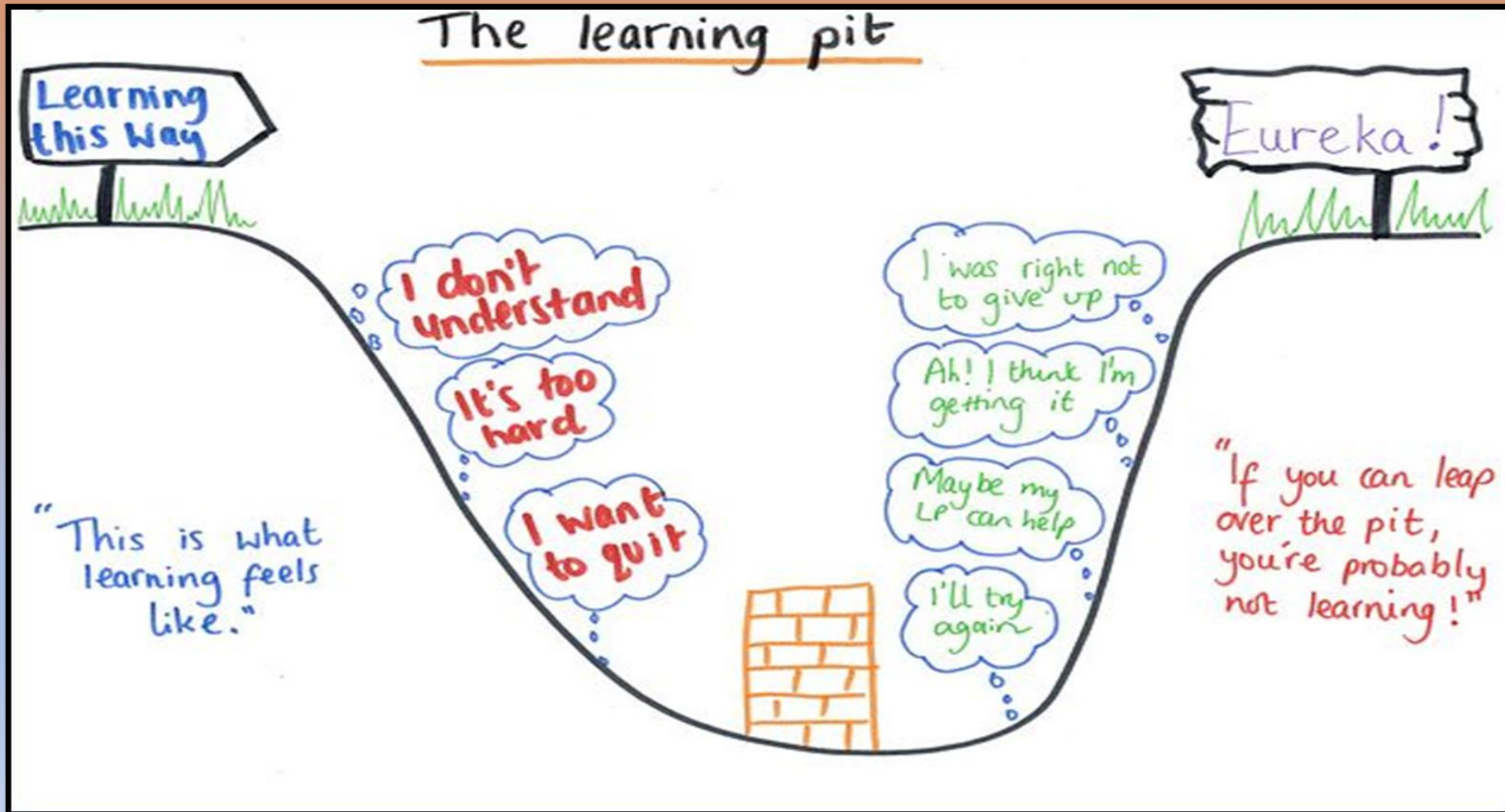
To become an **expert learner** you need to have the right mindset and understand the **'Power of YET'**!

Check out Austin's butterfly picture below and learn how he seeks feedback to improve his work to achieve the most amazing results!





The Learning Pit is a picture to help you remember that you are constantly going to be challenged and confused when you learn something new, but it's about knowing what to do in order to overcome these challenges to get to the other side of the pit!



1

Magnificent Metacognition



Plan

Is this similar to a previous task?
What do I want to achieve?
What should I do first?

Monitor

Am I on the right track?
What can I do differently?
How can I ask for help?

Evaluate

What worked well?
What could I have done better?
Can I apply this to other situations?

2

Marvellous Memory



My memory and learning improves when I learn through spaced, retrieval, interleaved, elaborated, and use of concrete examples in practice.

I must use the best learning strategies above when using my 'Need to Know' to complete pre and post learning tasks.

During lessons I am a responsible Lead Learner, I teach my self and peers through mini tests, flashcards and look/cover/write/check/review, this help me and my peers learn quickly.

3

Love My Learning



I have a growth mindset and believe I can be as SMART as I want to be! My brain is a muscle and it will growth bigger with the amount of effort I put into practice.

I seek feedback and enjoy acting on it. I see 'EBI' and 'T' from my teachers / peers as opportunities to improve, by acting on feedback I experience success as a learner

I can be my own teacher and can articulate what I am learning and why. I know my mastery goals and I seek errors as opportunities. I aspire to challenges and have no fear of failure!

4

Literacy for Life



Every hour I read is an hour improving my writing. Time is worth investing in my books and Accelerated Reader.

I always check my grammar, spelling and punctuation, this will help me to achieve the highest SPAG marks in my GCSE exams.

Practicing my reading skills and literacy will improve choice in job/career prospects. Success is when preparation makes opportunity and when practice makes permanent!

I NEED TO KNOW:

What is a positive relationships and what stereotyping is.

How to manage conflict and that there are different ways people can stereotype others such as because of their gender, sex, race, religion, disability.

Self Managers – Being someone who takes control of their own behaviour, failures and successes and does not blame or credit others with their actions.

Conflict – A disagreement, argument or clash between people.

Resolution – Finding a solution to the conflict that both sides can accept.

Conflict management – being able to stop the argument getting out of hand, to diffuse it and to take steps to find a resolution

Prejudice –judging someone based on ideas you already have about that particular type of person.

Discrimination - when prejudices are acted upon resulting in the unfair treatment of someone

The Equality Act 2010 - a law which protects us from discrimination in public and private spaces including workplaces

Portrayed – the way someone is shown, which can give influence how they are perceived (thought of).

Religious prejudice – having prejudice thoughts about a certain type of people because of their religious beliefs, dress and appearance.

Islamophobia – a fear of Muslims.

Racism – treating someone differently because they have characteristics or features, which people believe make them a certain 'race'

Discrimination – acting on your prejudices, e.g. actively doing something to favour one type of person above another.



I NEED TO KNOW:

**How do the poets use language and structural techniques? What is context and why is it important?
How do I compare poems?**

Exploding a poem

Think about the Subject matter

What is the poem about?

Does it tell a story? This is the literal or surface level meaning.

What can you see in your head as you read?

Who is the poem about? Is there a protagonist or an antagonist?

Who is **speaking** in the poem? Is there a narrator? To whom are they speaking? Why do you think the poet chose this perspective?

What are the ideas or themes of the poem?

Tone and Mood

Poets and authors set a **TONE** or **MOOD** in poetry by conveying an emotion or emotions through words.

Tone often reveals the **poet's attitude** towards the subject matter, characters and situations.

Think about:

What words best describe the tone of the poem? Is there a shift or change in the tone of the poem at any point? What effect does that change have?

Mood is the overall atmosphere or feeling the reader gains from a text. It is the **feelings the reader experiences** as they read the poem.

What words best describe the mood of the poem?

What feelings does the mood cause the reader to experience?

Words to describe Tone or Mood: melancholy, depressed, passionate, dramatic, angry, optimistic, humorous, tragic, adventurous, romantic, relaxed

Similar	Contrast
Similarly	Whereas
Equally	On the other hand
Likewise	Instead of
Like	Alternatively
Also	Otherwise
Both	Unlike
	However

Heritage Poetry means:

Poetry written by British poets that has stood the test of the time.

Poetry from Other Cultures and Traditions means:

These writers may live in the UK as members of ethnic minority groups or may live overseas.

What are these language and structural techniques?

Simile

Metaphor

Personification

Imagery

Assonance

Sibilance

Adjective

Verb

Adverb

Juxtaposition

Volta

Caesura

Enjambment

Poetry PEEDL

Point = name the technique

Evidence= quote “ “

Explain= explain what the quote shows/the effect

D= develop ideas further. Zoom in on a key word.

L= *Link to the context of the poem*

Personal response

What you think is important?

How do you feel about the poem? Did you enjoy reading it? Why or why not?

Do you agree/disagree with the poem's message? Why?

I NEED TO KNOW:

Number Skills; Factors, Multiples, and Primes; Indices

NUMBER SKILLS

What do I need to be able to do?
 You should be able to

- Understand properties of addition and subtraction
- Understand properties of multiplication and division
- Use formal methods of addition and subtraction for integers
- Use formal methods of multiplication and division for integers
- Add and subtract directed numbers
- Multiply and divide directed numbers
- Understand and use order of operations with positive and negative integers

Key Words

- Commutative:** changing the order of operations does not change the result
- Associative:** when you add or multiply you can do so regardless of how the numbers are grouped
- Inverse:** the operation that undoes what was done by the previous operation
- Subtract:** taking away one number from another
- Negative:** a value less than zero
- Debit:** money that leaves a bank account
- Credit:** money that goes into a bank account
- Integer:** a whole number
- Product:** multiply terms
- Operation:** a mathematical process

Addition

Addition is commutative
 $2 + 4 = 4 + 2$

Addition is associative
 $6 + (3 + 4) = (6 + 3) + 4$

Remember the place value for each column!

Subtraction

Subtraction is NOT commutative or associative

$12 - 8 \neq 8 - 12$

When you subtract, the order must stay the same

Written Methods for Multiplication

LONG MULTIPLICATION

2	4	7
x	3	
6	8	1
7	4	1

GRID METHOD

2	4	7
x	3	
6	12	21
24	28	21
74	28	21

Calculations with Directed Numbers

Addition
 $2 + 3 = 5$

Subtraction
 $2 - 3 = -1$

Generalisation
 $2 + 3 = 5$
 $2 - 3 = -1$

Written Methods for Division

SHORT DIVISION

6	2	5	2
-	12	10	0
0	4	0	0
-	8	0	0
0	0	0	0

Generalisation

Multiplication
 $2x - 3$
 $2x - 3$

Division
 $2x - 3$
 $2x - 3$

Order of Operations

Example 1
 $(4 \times 7) + 3$

Example 2
 $16 + 4 - 3 \times 4$

Example 3
 $4 + 8 \times 2 + 12 + 4$

FACTORS, MULTIPLES AND PRIMES

What do I need to be able to do?
 You should be able to

- Understand and use factors
- Understand and use multiples
- Recognise prime numbers
- Recognise square/triangular numbers
- Find common factors, including HCF
- Find common multiples, including LCM
- Express a number as the product of its prime factors

Key Words

- Multiple:** found by multiplying any number by a positive integer
- Factor:** integers that multiply together to get another number
- Prime:** an integer with only two factors (1 and itself)
- HCF:** The highest common factor of two or more numbers
- LCM:** the lowest common multiple of two or more numbers
- Product:** multiply terms

Factors

A number can have many factors!

Example: what are the factors of 12?
 1×12
 2×6
 3×4

So the factors of 12 are 1, 2, 3, 4, 6, 12

Multiples

The multiples of a number make up its 'times table'

Eg: What are the multiples of 4?
 $4 \times 1, 4 \times 2, 4 \times 3, 4 \times 4$ etc.
 $4, 8, 12, 16, 20$

This list never ends!

Prime Numbers

Always an integer
 Has only two factors, 1 and itself

Not in any other times tables apart from its own

2 is the smallest, and only even, prime number.
 1 is not a prime number.

A prime number has 2 factors, 1 and itself. It only has 1 factor (itself) therefore it isn't prime!

Square Numbers

Square numbers have an odd number of factors

1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225

Triangular Numbers

If you add two consecutive triangular numbers, you get a square number!

1, 3, 6, 10, 15, 21, 28, 36, 45, 55, 66, 78, 91, 105, 120

Product of Prime Factors

Write 12 as a product of its prime factors

Both of these trees represent the same decomposition

$12 = 2 \times 2 \times 3 = 2^2 \times 3$

Lowest Common Multiple (LCM)

Example 1: What is the LCM of 6 and 8?
 $6 = 2 \times 3$
 $8 = 2^3$
 The first time their multiples match is 24 therefore the LCM of 6 and 8 is 24

Highest Common Factor (HCF)

Example 1: What is the HCF of 6 and 8?
 $6 = 2 \times 3$
 $8 = 2^3$
 The biggest number which is a factor of both 6 and 8 is 2, therefore the HCF of 6 and 8 is 2

INDICES

What do I need to be able to do?
 You should be able to

- Add/subtract with indices
 - Multiply expressions with indices
 - Divide expressions with indices
 - Know the addition law for indices
 - Know the subtraction law for indices
 - Be familiar with the key results
 - Work with negative exponents
- HIGHER TIER ONLY**
 Work with fractional exponents

Key Words

- Base:** the number that gets multiplied by a power
- Power:** the number of times the number is used in a multiplication
- Exponent:** power (see above)
- Index:** power (see above)
- Coefficient:** a number used to multiply a variable
- Variable:** a letter which represents an unknown number
- Commutative:** changing the order of the operations doesn't change the result

Power/exponent/index

$5^2 \times 3d^4$

coefficient: 3d
 base: 5
 power/exponent/index: 2

Addition Law for Indices

$a^m \times a^n = a^{m+n}$

Examples:
 $2^2 \times 2^3 = 2 \times 2 \times 2 \times 2 \times 2 = 2^5$
 $3 \times 4 \times 2 \times 2 \times 2 = 2^4 \times 3$

Further Examples

$4w \times 5z = 4 \times 5 \times w \times z = 20wz$

$2 \times 3 \times 4 \times 2 \times 2 = 2^4 \times 3 \times 4$

Spotting Patterns

$2^3 = 2 \times 2 \times 2 = 8$
 $2^2 = 2 \times 2 = 4$
 $2^1 = 2$
 $2^0 = 1$
 $2^{-1} = \frac{1}{2}$
 $2^{-2} = \frac{1}{4}$

Fractional Indices

$a^{\frac{m}{n}} = \sqrt[n]{a^m}$

Examples:
 $25^{\frac{1}{2}} = \sqrt{25} = 5$
 $8^{\frac{1}{3}} = \sqrt[3]{8} = 2$

Subtraction Law for Indices

$a^m \div a^n = a^{m-n}$

Examples:
 $5^3 \div 5 = \frac{5 \times 5 \times 5}{5} = 5^2$
 $a^5 \div a^2 = \frac{a \times a \times a \times a \times a}{a \times a} = a^3$

Square and Cube Numbers

When working with indices, it is helpful to know your square and cube numbers!

SQUARE NUMBERS: 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225

CUBE NUMBERS: 1, 8, 27, 81, 125, 216, 343, 512

KEY THINGS TO REMEMBER

$a^m \times a^n = a^{m+n}$
 $a^m \div a^n = a^{m-n}$
 $a^0 = 1$
 $a^{-m} = \frac{1}{a^m}$
 $a^{\frac{m}{n}} = \sqrt[n]{a^m}$

NEGATIVE FRACTIONAL INDICES

$(32)^{\frac{1}{5}} \div (\sqrt{25})^{\frac{1}{2}} \div (2^2)^{\frac{1}{2}} = 8^{\frac{1}{2}}$

EXAMPLE 1

$8^{\frac{1}{3}} = \sqrt[3]{8} = 2$

EXAMPLE 2

$(343x)^{\frac{1}{3}} = x$

HIGHER TIER ONLY

$a^{\frac{m}{n}} = \sqrt[n]{a^m}$

I NEED TO KNOW:

- 1) The different stages in a scientific investigation
- 2) What is in our food, how the digestive system works and are the effects of drugs and alcohol
- 3) What is photosynthesis and respiration – how and where do they happen. Describing feeding relationships using food webs and chains.

HOW SCIENCE WORKS

BBC BITESIZE: <https://shorturl.at/cmwX7>

YOUTUBE: [Scientific Variables – YouTube](https://www.youtube.com/watch?v=qAJ8IF4HI20) & <https://www.youtube.com/watch?v=qAJ8IF4HI20>

SECTION 1- ASKING SCIENTIFIC QUESTIONS

You need to know: How scientists develop questions and identify variables

Learn the meanings of independent, dependent and control variables

Independent variable	<i>The variable you change in an investigation</i>
Dependent variable	<i>The variable you measure in an investigation</i>
Control Variable	<i>The variables kept constant in an investigation</i>

SECTION 2- PLANNING INVESTIGATIONS

You need to know: How to write a scientific plan, risk assessment & what makes data accurate & precise

Preparation

Find out what a plan should include

Accurate	<i>Data that is close to the true value</i>
Precise	<i>Set of repeat measurements that are close together</i>
Reproducible	<i>Other people can carry out an investigation and get similar results</i>

SECTION 3- RECORDING DATA

You need to know: How to make & record observations, present data & calculate mean averages

Research the similarities & difference between line and bar graphs

Mean	<i>Average set of data found by adding all the values together and dividing by the number of sets of data</i>
Continuous	<i>A variable that has values that can be any number</i>
Discrete	<i>A variable that can only have whole number values</i>

SECTION 4- ANALYSING DATA

You need to know: Identify patterns in data and draw conclusions

Find out what a line of best fit is and how to draw one

Analyse	<i>A process of looking at data and writing about what you have found out</i>
Line of best fit	<i>Smooth line on a graph that travels as close to as many points as possible</i>
Conclusion	<i>What you have found out in an investigation</i>

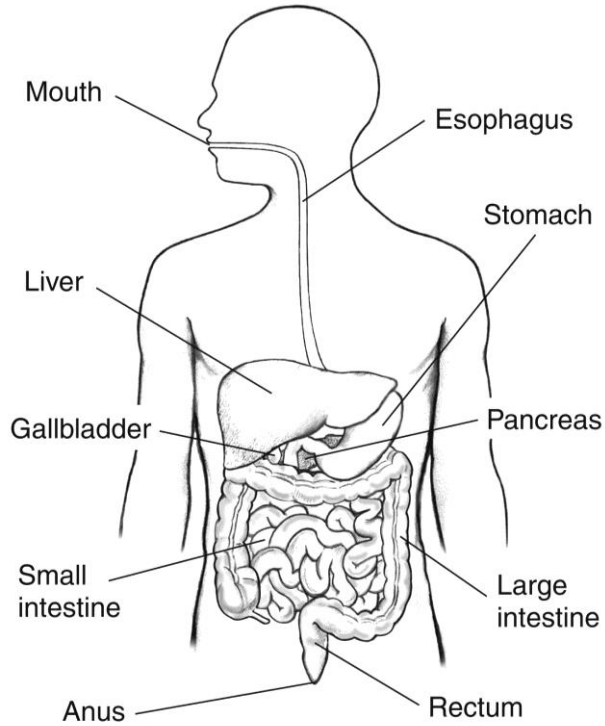
SECTION 5- EVALUATING DATA

You need to know: Describe stages of evaluating data & suggest ways to improve investigation

Research the different types of errors that can occur in investigations

Evaluate	<i>Looking at the quality of data and suggesting improvements</i>
Error	<i>Difference between the obtained and true value of data</i>
Uncertainty	<i>Doubt in the result because of the way a measurement was made</i>

SECTION 1- NUTRITION & DIGESTION		
You need to know: How to compare energy levels		
Preparation	What are the seven nutrients, what do they do for the body	
Terminology	Nutrients	Essential substance that your body needs to survive
	Enzyme	Special protein that can help break large molecules into small ones
	Temperature	A process where large molecules are broken into small ones

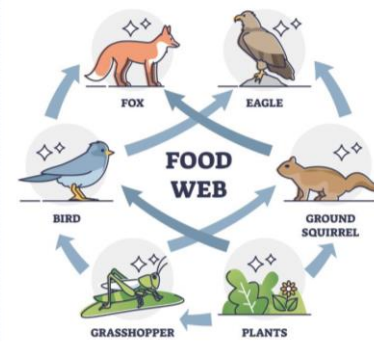
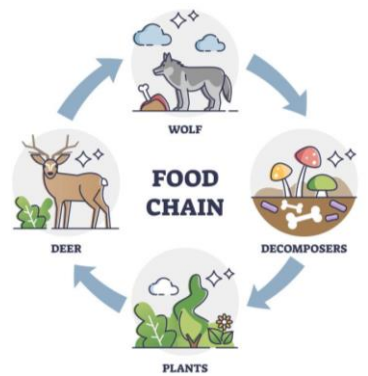


SECTION 2- DRUGS & ALCOHOL		
You need to know: Negative effects of drugs and alcohol		
Preparation	What is the difference between a medicinal and recreational drug	
Terminology	Depressant	A drug that slows down the body's reactions by slowing down the nervous system
	Stimulant	A drug that slows down the body's reactions by slowing down the nervous system
	Addiction	A need to keep taking a drug in order to feel normal

BBC BITESIZE:
<https://www.bbc.co.uk/bitesize/topics/zhvbt39/articles/zmjkhbk>

<https://www.bbc.co.uk/bitesize/topics/ztnnb9g/articles/zrs44xs>

SECTION 1- BIOENERGETICS		
You need to know: The difference between photosynthesis and respiration		
Preparation	What would happen if plants didn't photosynthesise	
Terminology	Photosynthesis	During photosynthesis, the chlorophyll in leaves help convert carbon dioxide and water into the products oxygen and glucose
	Respiration	Releasing energy from glucose
	Chemosynthesis	Releasing energy from chemicals.



PHOTOSYNTHESIS: <https://www.bbc.co.uk/bitesize/topics/zvrrd2p/articles/zn4sv9q>

RESPIRATION: <https://www.bbc.co.uk/bitesize/topics/zvrrd2p/articles/zdqx2v4>

FOOD WEBS: <https://www.bbc.co.uk/bitesize/topics/zxhhvcw/articles/zw46m39>

SECTION 2- ECOSYSTEMS & FEEDING RELATIONSHIPS		
You need to know:		
Preparation	What is the difference between a medicinal and recreational drug	
Terminology	Producer	An organism (plant) that produces its own food
	Consumer	An organism that eats other organisms as food
	Community	Collection of different organisms that live within an ecosystem

Ecosystems Processes

I NEED TO KNOW:

Images are made up of pixels. Pixels are small squares and when combined with other small squares an image is formed. Each pixel is given a specific colour.

Computers can only understand TWO values; 1 and 0. You need to be able to convert binary numbers to denary (the numbers we use).

When you zoom into any picture you will eventually see the individual pixels (small squares)

Denary	Binary
0	0
1	1
2	10
3	11
4	100
5	101
6	110
7	111
8	1000

Colour depth

Within an image each pixel has its own binary number to represent a colour. The picture below has a colour depth of 2. There is no more than 2 bits per pixel.

Colours used	
0	
1	
10	
11	

11	11	11	11	11	11	11	11	11	11	11	1	1	1	11
11	11	11	11	11	11	11	11	11	11	1	10	10	1	1
11	11	11	11	11	11	11	1	1	11	1	10	1	10	1
11	11	11	11	11	11	1	0	0	1	10	1	10	10	1
11	11	11	11	11	1	0	0	0	0	1	10	1	1	11
11	11	11	11	1	0	0	0	0	0	0	1	11	11	11
11	11	11	1	0	0	0	0	0	0	0	0	1	11	11
11	11	1	0	0	0	0	0	0	0	0	0	1	11	11
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1	0	0	0	0	1	0	1	1	11	11	11	11	11	11
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11	1	1	1	1	11	11	11	11	11	11	11	11	11	11

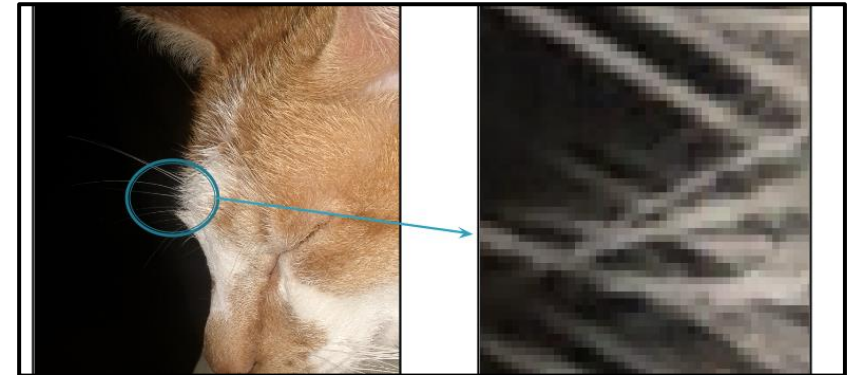


Image Resolution

This is how many pixels are in an image. This image has a resolution of 13 x 13.

I NEED TO KNOW:

Different techniques used within Fashion & Textiles



Cath Kidston

Catherine Isabel Audrey Kidston MBE (born 6 November 1958) is an English fashion designer, businesswoman and author whose company, Cath Kidston Limited sells home furnishings and related goods online, through franchises and by mail order. She is particularly known for her nostalgic floral patterns and has also published a number of books.

Kidston has worked with Milletts to design tents (2005–6), Nokia/ Carphone Warehouse mobile phones (2006), and Roberts radios (2005 onwards). In 2008, she collaborated with Tesco to produce shopping bags made from plastic bottles, which saved about six million plastic bottles from landfill.



Tie Dye

The process of tie-dye typically consists of folding, twisting, pleating, or crumpling fabric or a garment, before binding with string or rubber bands, followed by the application of dye or dyes.

The manipulations of the fabric before the application of dye are called resists, as they partially or completely prevent ('resist') the applied dye from coloring the fabric.

More sophisticated tie-dye may involve additional steps, including an initial application of dye before the resist, multiple sequential dyeing and resist steps, and the use of other types of resists (stitching, stencils) and discharge.



Sublimation Printing

Sublimation printing uses heat to essentially bring ink and fabric together as one.

First, a design is printed onto special paper. The inks that are used turn into gas when brought under heat, then combine with the fabric and permanently print onto the fabric.

The effects are permanent and less prone to fading, as the ink is embedded in the fabric or substrate rather than simply laying on top like a normal print.

The heat opens up the pores of the fabric, then with the applied pressure the ink cools and returns to a solid form.



Hemming

Hemming is a sewing technique used to finish the edges of fabric to prevent unraveling and create a neat, clean edge. It involves folding the raw edge of the fabric over and sewing it in place.

Hemming is a crucial step in garment construction. It is used to finish the hems of skirts, dresses, trousers, sleeves, and other clothing items. The type of hem used can vary depending on the fabric weight, garment style, and desired look.

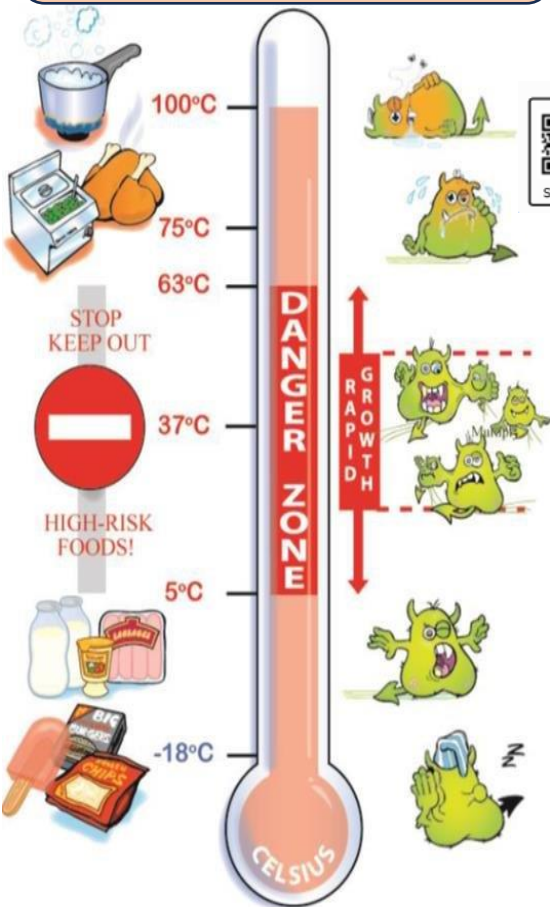
There are several types of hems that can be used depending on the desired finish and fabric type. Common types include single-fold hem, double-fold hem, rolled hem, and bias hem.



I NEED TO KNOW:

Keeping us safe from illness, different cooking methods that are better for us, and the benefits of exercise.

Important temperatures to avoid food poisoning



What bacteria need to be able to grow



How may I feel if I have food poisoning/symptoms

FOOD POISONING



PREVENTION

- COOK TO A SAFE TEMPERATURE
- AVOID EATING SPOILED OR EXPIRED FOOD
- SEPARATE RAW MEAT FROM OTHER FOODS
- WASH FRUITS AND VEGETABLES
- WASH HANDS


SYMPTOMS

- FEVER
- VOMITING
- DIZZINESS
- DIARRHOEA
- HEADACHE
- ABDOMINAL PAIN

TREATMENT

- HOSPITAL
- MEDICINE
- DRINK FLUIDS
- GET REST

Different cooking methods



COOKING METHODS

Knowing the difference will save you time and money.

SCAN ME!

FOOD COOKS IN:

AIR	FAT	WATER	STEAM
DRY HEAT Produces rich flavour due to browning and caramelization		MOIST HEAT Keeps food moist and prevent drying out	
BROILING - High dry heat from above - Caramelizes and browns surface		STEAMING - High heat - Fast cooking time because it uses the steam released after water goes past 212°F (100°C)	
GRILLING - Usually uses high dry heat from below - Caramelizes and browns surface		BOILING - High heat - Food cooks submerged in liquid - Liquid is either absorbed by food or discarded when cooking is complete	
ROASTING/BAKING - Cooks evenly over longer periods - Oven allows for consistent temperature control - There is no difference between "Roasting" and "Baking"		SIMMERING - Medium heat - Small bubbles gently break the liquid's surface - Used to infuse liquid with flavour from the food being cooked	
SAUTEING - High heat and little oil - High heat prevents moisture loss		POACHING - Low temperature - Used for delicate foods like eggs - Liquid will slowly move but no bubbles form	
PAN FRYING - Medium high heat - Requires more oil than Sauteing to prevent moisture loss		COMBINATION HEAT Uses both dry heat and moist heat	
DEEP FRYING - Considered "Dry Heat" due to using extremely high temperatures - Cooks very quickly and browns		BRAISING - Dry Heat = Pan fry or Sauté to brown the meat - Moist Heat = Add liquid to 1/3 the height of the meat	
MOIST		DRY	
SLOW		FAST	
BRAISING STEAMING POACHING		ROASTING SMOKING GRILLING PAN FRY/SAUTE BROILING DEEP FRY	

References: theculinarycook.com, wikieducator.org

COOKERY NATION
An app to help you cook
www.cookerynation.com

Benefits of staying active

BENEFITS OF EXERCISE

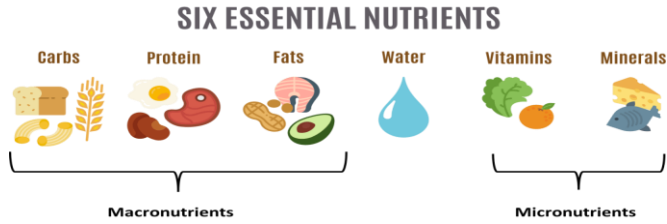
- Improve memory and brain function
- Better weight control
- Protect against many diseases
- Improve heart health, lower blood pressure
- Improve sleep quality
- Reduce the feeling of anxiety or depression
- Improve joint-pain and to move without pain
- Maintain muscle strength and balance
- Increase life span, live longer

I NEED TO KNOW:

Methods of cooking cakes, nutrients and food groups and how to stay safe when cooking

The importance of reflecting on the government guidelines for healthy eating. How do we fuel our bodies so that we can function physically and mentally

Using the four Cs in food hygiene to prevent food poisoning



The different ways of baking cakes

Methods of making (Processes)

Cake	Proportion of ingredients	Ratio	Raising Agent	Method	Outcome
Rubbed in Cake -Rock buns -Raspberry buns -Scones	200g SR Flour 100g marg 100g caster sugar 2 eggs 30ml milk	1:2 in cakes 1:4 in scones, contains baking powder	Chemical Baking Powder or Self Raising flour Mechanical Sieving Rubbing In	Fat is rubbed into the flour using fingertips Additional ingredients are added Liquid added to bind together dry ingredients	Well risen product Rougher surface Dry, open crumb texture Short shelf life
Melted Cake -Flapjack -Gingerbread -Brownies	Mixtures vary in ingredients Usually a high sugar content	Varies depending on product.	Chemical Bicarbonate of soda	Fat is melted with the sugars and syrups Dry ingredients added Liquids bind all ingredients together	Moist and sticky Soft even texture Flavour develops during keeping Long shelf life
Creamed Cake -Victoria Sponge -Small buns -Madeira Cake	100g SR Flour 100g caster sugar 100g soft marg 2 eggs	Equal quantities 1:1	Chemical Baking Powder or Self Raising flour Mechanical Creaming Sieving	Fat and sugar are creamed together Eggs are slowly added a bit at a time Flour is folded in	Light brown sponge with fine even texture Longer shelf life
Whisked Sponge -Swiss Roll -Gateaux -Flan case	50g caster sugar 50g plain flour 2 eggs	No added fat	Steam Mechanical Whisking Sieving	Eggs and sugar are whisked until mixture has doubled in volume Flour is gently folded in	Very light sponge with even, soft moist texture Short shelf life



How to store food properly in the fridge



Source: Public Health England in association with the Welsh Government, Food Standards Scotland and the Food Standards Agency in Northern Ireland. © Down copyright 2016

I NEED TO KNOW:

You will need to know what a cam is and what its function is
 You will need to know how to change rotary movement to reciprocating movement.

MATERIAL	DEFINITION
Pine	A light coloured softwood with an attractive grain that comes from an evergreen tree
Balsa wood	A very soft lightweight wood (but actually classed as a hardwood) That is used in model making and is ideal for 3D objects for the top of the automata
Dowel	A wooden rod used for axles and to reinforce simple wooden joints
Acrylic	A thermoplastic that can be used to improve the finish of our automata
PVA	The best glue to use when gluing wood to wood.




KEY WORD	DEFINITION
Automata	A mechanical device that changes one form of movement into another often to cause amusement
Jig	A clamp (often home made) that enables you to hold a piece of work and perform the same task to numerous identical pieces
Rotary Movement	The term to describe when something is turning
Reciprocating movement	The term to describe when something is going up and down
Oscillating movement	The term to describe when something is swinging like a pendulum

MACHINERY	DESCRIPTION
Fret Saw	An electronic saw
Disk sander	A disc that rotates with glass paper fixed onto the front
Dust extractor	A large unit that help remove dust that has been created by sanding
Pillar Drill	A vertical drill used for drilling very accurate holes

I NEED TO KNOW:

Use this sheet to prepare for each lesson and understand the key terminology that you will be learning throughout this topic beforehand. It is recommended that you prepare yourself for each lesson by looking over the information below and develop your skills beforehand so you're prepared. You can also read about the inspirations and influences for this topic to get more information. The project will develop your skills in the 4 assessment objective areas – research, observe, experiment and present.

CONCEPT OR DIAGRAM



Kate Watkins

Albertus Seba

KEY WORDS		WEEKS	PREPARATION TASK & HELPFUL LINKS
SHAPE	An element of art that is two-dimensional, flat, or limited to height and width.		Research into different types of mark making.
FORM	Connotes something that is three-dimensional and encloses volume, having length, width, and height.	WEEK 1	goo.gl/eCqcY3
SCALE	The relative size of something.	WEEK 2	Research Albertus Seba
PROPORTION	Ensuring the correct size of objects/things in a picture in comparison to each other.	WEEK 2	https://en.wikipedia.org/wiki/Albertus_Seba
COMPOSITION	The placement or arrangement of visual elements or ingredients in a work of art.	WEEK 3	Look at other artists who have used different mark making techniques. goo.gl/aznwG9
SYMMETRY	Symmetry is what occurs when one side of something balances out or mirrors the other.	WEEK 4	Look at the artists Kate Watkins
PATTERN	A repeating unit of shape or form.	WEEK 4	https://www.katewatkins.co.uk/portfolio/coastal
MARK MAKING	The process of applying pencil to paper. You could broaden this to include applying media to anything (using pen and ink, paint on canvas, anything that leaves a mark on the page).	WEEK 5	Looking at other examples of symmetry in nature. goo.gl/H40vT
CROSS HATCHING	Is a form drawing that creates varying shades through the use of overlapping lines.	WEEK 6	Carryout 2 detailed observation drawings
CONTINUOUS LINE	The line in a continuous line drawing is unbroken from the beginning to the end.		

I NEED TO KNOW:

Exploring other ways of creative movement material other than

<p>WK 1 & 2</p>	<p><u>Warm up and Cool down.</u> As a class you will be put through your paces trying out different ways in which you can warm up and cool down and reasons why it is so important. This will be both teacher and student lead, you will be given time to create your own versions and for them to be delivered to the rest of the class.</p>
<p>WK 3 & 4</p>	<p><u>Enter Achilles</u> Using the professional set work, Enter Achilles by DV8, as a form of stimulus to create movement material from. Using a range of choreographic devices to develop the movement material using props. <u>Introduction of Contact work</u> Explore contact work safely with a partner or in small groups and incorporate the new ideas into your duets. Use improvisation to explore other possibilities in your pairs, use new material to create an additional motif</p>
<p>WK 5 & 6</p>	<p><u>Choreographic Devices</u> Using a variety of choreographic devices to develop movement material. Understand the importance of having a clear beginning, middle and end to your dance to show structure <u>Perform and appreciate</u> Perform your completed choreography to another group. Using dance terminology to provide supportive and constructive feedback to each other and recognise own successes and areas to develop</p>

KEY WORD/CONCEPT	DEFINITION/EXPLANATION
Tableaux's	Freeze frame
Choreographic devices	Ways to develop a dance
Coordination	Linking two or more movements together at the same time
Facial expression	Stay in character
Spatial awareness	When performing or creating movement material be aware of others around you
Appreciation	Recognise the importance of something
Stylistic qualities	Specific moves or attitudes that shine through the choreography or make up the choreography. Work off that idea.
Interpretation	showing your own understanding of something

I NEED TO KNOW:

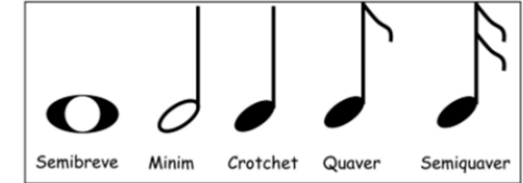
These are your foundations that you must know as these are required for all topics,
Your first topic is WORLD MUSIC alongside the weekly checks on pulse, pitch and rhythm

KEYWORDS











Duration	How long a note lasts for
Pitch	How high or low a note is
Tempo	How fast or slow a note is
Dynamics	How loud or quiet the music is
Timbre	The quality of sound
Texture	How thick or thin the music is
Structure	How the sections of music are laid out e.g. chorus, verse etc.
Silence	When the instruments stop playing

WEEK 1 & 2	<p>Base level assessment What do you listen to? How does music make you feel? What instruments can you play?</p> <p>Discover Pulse Through listening tasks, tap, clap the pulse of a played piece of music</p>
WEEK 3 & 4	<p>Rhythms Develop knowledge of various and construct own rhythm patterns to perform in small groups. Body percussion tasks. Try this at home for practice https://www.youtube.com/watch?v=SGp3EHmGLH8</p>
WEEK 5 & 6	<p>Pitch Increase your knowledge of the pitch and placement of notes when written on a STAFF. A staff are the 5 lines and spaces that we write music on. Compose on melody (tune)</p>

NOTE VALUES



NOTE AND REST DURATION CHART





NOTES (SOUNDING)	TYPE AND VALUE	RESTS (SILENT)
	Whole (4 Beats)	
	Half (2 Beats)	
	Quarter (1 Beat)	
	Eighth (1/2 Beat)	
	Sixteenth (1/4 Beat)	



NOTES on STAFF

YEAR 8
Autumn 1

Concepts:
Listening-
Creating-
Performing

<p>MUSIC FROM AFRICA Music forms an crucial part of African culture and is used in everyday life and celebrations</p>	
<p>A CAPPELLA</p> 	<p>Singing without any instruments playing an accompaniment</p>
<p>POLYRHYTHMS</p>	<p>Many rhythms played at the same time</p>
<p>OSTINATO</p>	<p>A repeated musical pattern</p>
<p>CALL AND RESPONSE</p>	<p>A structure of music in which 1 musician plays or sings and the rest of the group play or sing an 'answer'</p>
<p>Percussion instruments</p>	<p>African Music is played on a variety of PERCUSSION instruments</p>  <p>Djembe</p>  <p>Agogo</p>

Use this sheet to understand the key terminology that you will be learning. It is recommended that you prepare yourself for each lesson by looking over the information below. This project will develop your skills using the key areas of – EXPLORE, EXPRESS and EVALUATE.

I NEED TO KNOW:

KEY WORDS & CONCEPTS	
Magic IF	The actor puts themselves in the character's position in order to try to understand the feelings they might go through by thinking ' how would I feel IF I was in that situation '.
EMOTIONAL MEMORY	An actor can get a more realistic and often more believable emotional portrayal if they think about a time they felt similar, and then borrow from that moment. It is very important to never go too deep with negative memories when doing this though.
GIVEN CIRCUMSTANCES	In order to really understand a character's feelings and motivations we need to gather everything we know about them and use that to infer more that we do not. For example, what would my character do if they saw some money on the floor?
CIRCLES OF ATTENTION	In order to clearly show a character's feelings, you need to think about how you show it in your SELF, next how you show it with OTHERS, and lastly how you communicate those feelings to an AUDIENCE.

'**Inside out**'- Released in 2015 the animated classic follows the character of Riley as she is moved across America because of her Father's job. The movie shows how 5 key emotion characters (Joy, Sadness, Anger, Fear and Disgust) cope/don't cope with this. Inside out 2 following Riley as a teenager was released in 2024. This movie introduces the new emotions of Envy, Embarrassment, Ennui and Anxiety.



WEEK	PREPARATION TASKs & HELPFUL LINKS
Week 1 & 2	<p>What is Method Acting?</p> <p>https://shorturl.at/tCsFc</p> <p>Website page: https://www.cityheadshots.com/blog/method-acting</p>
WEEK 3 & 4	<p>Why actors act:</p> <p>https://shorturl.at/fz762</p> <p>(Actors talk about their craft Film4 Self Portraits video)</p>
WEEK 5 & 6	<p>Watch and listen to how the actors create voices for their emotions. Look at how many versions they do!</p> <p>https://shorturl.at/XPeCi</p> <p>(Inside Out Behind The Scenes Footage video)</p>

By the end of this term, you will develop an understanding of team games and how to stay fit for life.

I NEED TO KNOW:

Outwitting opponents		
Through netball rugby and handball	Developing tactical awareness	
Tactics	Formations	<i>Who plays where and when</i>
	Positions	<i>Attack/defence names of positions</i>
	How to win	<i>How to score</i>
	Rules	<i>How to use rules to advantage</i>

Outwitting opponents		
Through netball/rugby and handball	Developing thinking skills	
Tactics	Small sided games	<i>How to keep possession in a game</i>
	Small sided games	<i>How to defend and win the ball back</i>
	Bigger games	<i>Plan attacking tactics in games</i>
	Bigger games	<i>Plan defending tactics in games</i>

Physical and mental challenges		
Through Y8 assessment	Fitness testing	
Components of fitness	Speed	<i>30 m sprint</i>
	Stamina	<i>Multi Stage fitness test</i>
	Reaction Time	<i>Ruler Drop test</i>
	Balance	<i>Standing Stork</i>

Effective teams and sportsmanship		
Through football/rugby	Developing leadership roles.	
Leadership	Leading	<i>A warmup or part of a lesson</i>
	Planning	<i>A small sided game/drill</i>
	Organising	<i>Equipment students' space</i>

Positive attitudes and behaviours		
Through Functional Fitness	Know what a positive attitude and behaviour is.	
Positive Mindset	Optimistic	<i>Believe in yourself</i>
	Positive affirmation	<i>I cant do it yet...</i>
	FAIL	<i>First Attempt at Learning</i>
	Be kind	<i>To yourself and others</i>

Y8 Assessment		
Y8 Assessment	Fitness testing	
Components of fitness	Power	<i>Sargent Jump</i>
	Agility	<i>Illinois agility test</i>
	Co-ordination	<i>Wall toss test</i>
	Flexibility	<i>Sit and reach test</i>

I NEED TO KNOW:

How rivers shape our landscapes, and how rivers are used and abused by people

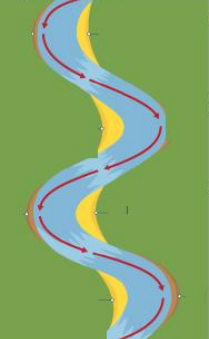
HYDROLOGICAL CYCLE



THE MIDDLE COURSE

FEATURES
 Wider, shallower valleys, meanders, and oxbow lakes

MEANDERS



1. The formation of meanders is due to both **deposition** and erosion and meanders gradually move downstream.
2. The force of the water **erodes** and undercuts the river bank on the outside of the bend where water flow has most energy.
3. On the inside of the bend, where the river flow is slower, material is **deposited**, as there is more friction.
4. Over time the horseshoe become tighter, until the ends become very close together. As the river breaks through the ends join, the loop is cut-off from the main channel.
5. The cut-off loop is called an **oxbow lake**.

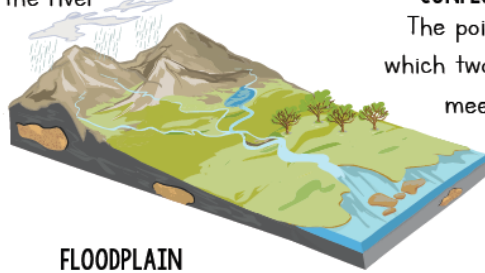
OXBOW LAKE



DRAINAGE BASIN

SOURCE
 The origin of the river

TRIBUTARY
 Smaller streams/ rivers that flow into a larger one.



FLOODPLAIN
 Flat land along the river that is prone to flooding.

CONFLUENCE
 The point at which two rivers meet.

MOUTH
 The end where the river meets the sea.

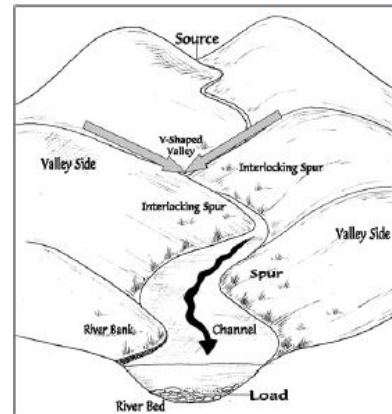
RIVER PROCESSES

EROSION where rocks are worn away and the land changes shape.
TRANSPORTATION where eroded material is carried by the river downstream.
DEPOSITION where transported material is dropped when the river loses energy, such as when it enters the sea.

THE UPPER COURSE

FEATURES

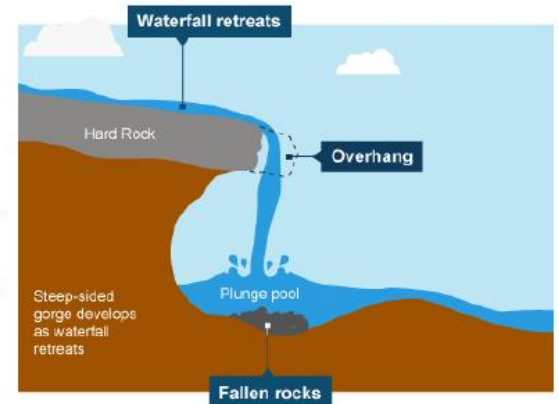
Steep-sided V-shaped valleys, interlocking spurs, rapids, waterfalls and gorges.



When a river is near its source, it often develops a V-shaped valley as the river erodes down (this is called **vertical erosion**).

At the same time, weathering breaks up material on the valley slopes. Weathered material from the valley sides gets deposited in the river.

1. The soft rock erodes more quickly, **undercutting** the hard rock
2. The hard rock is left **overhanging** and eventually collapses.
3. The fallen rocks crash into the **plunge pool**. They swirl around, causing more erosion.
4. Over time, this process is **repeated** and the waterfall moves upstream.
5. A steep-sided **gorge** is formed as the waterfall retreats.



I NEED TO KNOW:

The background and events of the English Civil War 1642-1649

The Gunpowder Plot Key Events

Who A group of Catholics led by Guy Fawkes and including Robert Catesby, Thomas Winter, Thomas Percy and John Wright.

What: A plot to kill the King of England James 1st by blowing parliament up

Where: A cellar under the house of Lords, Parliament in London

When: 5th November 1605 this was state opening day, when the Kings, Lords and Commons would all be present in the Lords chamber.

Why: Some Catholics felt the King was treating Catholics unfairly this was because they had to practise their religion in secret. You could be fined if you did not go to a Protestant church on Sunday.

Why was Charles executed in 1649?

He lost the civil war; he started a second civil war by getting the Scots to invade England and committed an act of treason against his own country

1625 Charles 1st became King and married Henrietta Maria

1629 Charles dissolves parliament and rules without them; he raised money through imposing ship tax and taking forced loans

1640 Charles recalls Parliament he needs to get money off them to fight a war against the Scots

1641 Grand Remonstrance: Parliament published a list of over 150 misdeeds of Charles and made various demands. They also took control of the army

1642 Parliament released a new set of demands in response Charles raised the Royal standard at Nottingham Castle on the 22nd of August this signified the start of the Civil war.

1648 Parliament wins the Civil war

1649 Charles is put on trial for treason, he is found guilty and executed

I NEED TO KNOW:

How people rate the importance of happiness and what Buddha said about happiness and suffering



Happiness – should it be what we are aiming for in life?
Happiness can be absolute – so it doesn't depend on anything else. Just being alive – maybe? Or happiness can be relative- as in it depends on other things such as where we live, how much we own...etc

Buddha taught that the way to overcome suffering was to accept 3 universal truths- no soul because nothing is permanent and suffering happens to everyone.

LIVING A GOOD LIFE	Morality - Karma and rebirth Morality - Dharma Relative and absolute happiness
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ULTIMATE QUESTIONS	Ultimate concern – nibbana Soul (as in no soul)- anicca Impermanence – anatta Suffering - dukkha
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Anicca	Impermanence
Anatta	No soul
Dukkha	Suffering
Enlightenment	To have knowledge or wisdom about the meaning of life
Kamma	Action driven by intention which leads to future consequences
Nibbana	To escape from samsara
Noble	To be very moral (good)
Precept	Rule to live by
Purpose	Reason for doing an action
Samsara	The cycle of life, death and rebirth
Universal truths	Things that are true for all people on earth

Buddha was born as a prince, living in luxury. He saw 4 sights which changed his life. Before this he had never known that suffering existed. He spent the next few years denying himself luxuries. Eventually he rejected this and decided the Middle Way – between rich and poor was best.

He became enlightened by sitting under a Bodhi tree. He saw all his previous lives, realised that there was a cycle of rebirth and that future rebirths were affected by our actions.

Actions having consequences are called **kamma**. Buddhists can avoid a bad rebirth by following the Middle Way or Noble Eightfold Path.

If people accept that suffering happens to everyone, then they can learn to control it. Buddha said that if we stop desiring things, then we will stop suffering.

The middle way or Noble Eightfold Path has 8 steps that teach Buddhists to be wise, act well and meditate. These will help people manage suffering.

I NEED TO KNOW:

Talking about TV; talking about films; talking about reading; talking about the internet; talking about the weather

A la télé	On TV
je regarde...	I watch
les documentaires	documentaries
les émissions de sport	sports programmes
les émissions de télé-réalité	TV reality programmes
les infos	The news
les jeux télévisés	games shows
les séries	series
les séries policières	police series
les séries américaines	American series
Les adjectifs	Adjectives
grand(e) / spetit (e)	tall (big for objects) / small
riche / pauvre	rich / poor
intelligent(e) / amusant (e)	Intelligent / fun/funny
beau/belle Gentil (le)	handsome/beautiful / kind

Les films	FILms
J'aime...	I like
les comedies	comedies
les films d'action	action films
les films d'arts martiaux	martial-arts films
les films fantastiques	fantasy films
les films d'horreur	horror films
les films de science-fiction	science-fiction films
les westerns	westerns
les dessins animés	cartoons
Qui est ton acteur préféré?	Who is your favourite actor?
Mon acteur préféré c'est...	My favourite actor is...
Mon actrice préférée c'est...	My favourite actress is...
Quel est ton film préféré?	What is your favourite film?
Mon film préféré c'est...	My favourite film is...

Est-ce que tu aimes...?	Do you like...?
Oui, j'aime ça	Yes, I like that
Non, je n'aimes pas ça	No, I don't like that
c'est...	It's...
amusant	funny
genial	great
intéressant	interesting
ennuyeux	boring
nul	rubbish
j'adore	I love
j'aime bien	I like
je n'aime pas	I don't like
je déteste	I hate
je ne regarde pas	I don't watch
J'ai une passion pour...	I have a passion for...
Je suis fan de...	I am a fan of...
Je ne suis pas fan de...	I am not a fan of...

I NEED TO KNOW:

Talking about TV; talking about films; talking about reading; talking about the internet; talking about the weather

La lecture	Reading
Je lis...	I am reading...
une BD	a comic book
un livre sur des animaux	a book about animals
un livre d'épouvante	a horror story
un magazine sue les célébrités	a celebrity magazine
un roman fantastique	a fantasy novel
un roman policier	a thriller
c'est bien?	Is it good?
A mon avis c'est...	In my opinion it's...
assez bien	quite good
passionnant	exciting
Qui est ton auteur préféré?	Who is your favourite author?
Mon auteur préféré, c'est...	My favourite author is...

Sur internet	On the internet
J'envoie des e-mails	I send emails
Je fais beuacoup de choses	I do lots of things
je fais de recherches	I do research
je fais des achats	I shop
je fais des quiz	I do quizzes
je joue à des jeux en ligne	I play games online
je lis des blogs	I read blogs
Je trouve ça...	I find it...
barbant	boring
chouette	great
pratique	practical
stupide	stupid

Stratégie 1 Improving your pronunciation
One way of improving your French pronunciation is to listen to famous French people speaking English. They often use French sounds when they're speaking English. They use French intonation too. Intonation is the way the voice goes up and down when you string words together.

Les mots essentiels	High frequency words
assez	quite
aussi	also
comme	as/such as, like
et	and
mais	but
normalement	normally
parce que	because
par exemple	for example
quand	when
très	very
d'habitude	usually
en ce moment	at the moment
quelquefois	sometimes
souvent	often
tous les soirs	every evening
une fois par semaine	once a week

I NEED TO KNOW:

Talking about a past holiday; using present and preterite tenses together

¿Qué hiciste?	What did you do?
Bailé	I danced
Compré una camiseta.	I bought a T-shirt
Descansé en la playa.	I relaxed on the beach
Mandé SMS	I sent texts
Monté en bicicleta.	I rode my bike
Nadé en el mar.	I swam in the sea
Saqué fotos.	I took photos
Tomé el sol.	I sunbathed
Visité monumentos.	I visited monuments
No nadé en el mar.	I didn't swim in the sea
Bebí una limonada	I drank a lemonade
Comí paella	I ate paella
Conocí a un chico /una chica guapo/a	I met a cute boy/girl
Escribí SMS	I wrote texts
Salí con mi hermano/a	I went out with my brother/sister
Vi un castillo interesante	I saw an interesting castle

¿Cuándo?	When?
Luego	Then
Más tarde	Later
Después	Afterwards
El primer día	On the first day
El ultimo día	On the last day
Otro día	Another day
Por la mañana	In the morning
Por la tarde	In the afternoon
¿Cómo te fue?	How was it?
Fue divertido	It was fun/funny
Fue estupendo	It was brilliant
Fue fenomenal	It was fantastic
Fue flipante	It was awesome
Fue genial	It was great
Fue guay	It was cool
Fue regular	It was OK

I NEED TO KNOW:

Talking about a past holiday; using present and preterite tenses together

Palabras muy frecuentes	High frequency words
a/al/a la	To (the)
En	By
Con	With
Mi/mis	My
¿Cómo?	How...?
¿Dónde?	Where?
¿Adónde?	Where to?
¡Qué...!	How...!
Además	Also, in addition
Y	And
Pero	But
También	Also
muy	Very
Bastante	Quite
Un poco	A bit

Estrategia 5 Looking up new words

Dictionaries can tell you a lot about new words. Most of them use abbreviations: *nm*, *nf*, *adj*, *vb*, *prep*, *adv*.
For example, *nm* tells you a word is a masculine noun; *vb* tells you it's a verb
What do you think the others tell you?
Look up the words below in a dictionary.
Note down what each word means and what sort of word it is.

solamente	
espada	
descansar	
rico	
salir	
sombrero	
ganar	
chocolatina	