



Name:

Form:

Knowledge Organisers

Year 8 Term 1

Knowledge is Power

Knowledge Organiser Guide

Your Knowledge Organiser (KO) contains the most important facts, vocabulary, dates, formulas, and definitions you'll need for each subject this term. Learning this core knowledge is essential – it helps you:

- ✓ Do well in your assessments
- ✓ Make better progress in lessons
- ✓ Fill gaps if you miss a lesson
- ✓ Take part in Connect tasks with confidence
- ✓ Become a more independent learner

The Look, Cover, Write, Check (LCWC) Method

This is a daily 15–25 minute routine you can use:

LOOK

Choose a small section of the Knowledge Organiser – just one row or a few key facts. Read it carefully. Say it out loud to help it stick.

COVER

Cover the section with a book, your hand, or a piece of paper.

WRITE

From memory, write down what you remember in your exercise book or on paper. Try to get it as close to the original as possible.

CHECK

Uncover the section and check your answer. Tick what's correct and fix any mistakes using a different colour.

REPEAT

Move on to the next small section and repeat the process.

Other Great Techniques

Alongside Look. Cover, Write, Check, try these techniques to boost your memory and understanding:

1. Self-Quizzing

Make flashcards from the KO (question on one side, answer on the other) or ask someone at home to quiz you.

2. Mind Mapping

Create mind maps from sections of your KO – this helps you make connections between ideas.

3. Dual Coding

Draw simple diagrams or doodles next to facts – this helps visual learners remember better.

4. Teach It

Explain a topic from your KO to a family member or friend. Teaching helps you learn deeply.

5. Spaced Practice

Revisit the same facts over several weeks. Don't cram – return to older content regularly.

Using Your KO in Class

Connect – If your teacher allows, use your KO as part of the Connect activity at the start of your lesson.

Missed a Lesson? – Use the KO to catch up on key knowledge you've missed.

Homework & Revision – Use the KO as your go-to revision tool before assessments.

Art: Y8 Term 1



Theoretical Knowledge

HOW TO JOIN CLAY

1 SCORE



2 SLIP



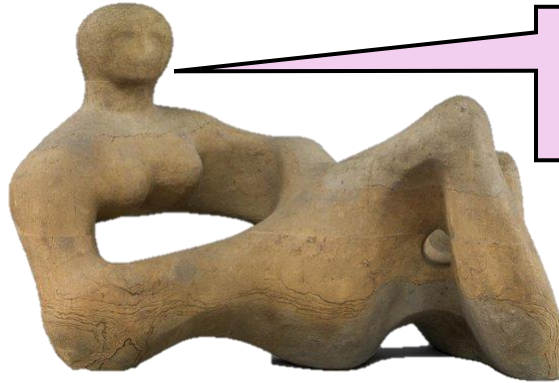
3 STICK



4 SMOOTH

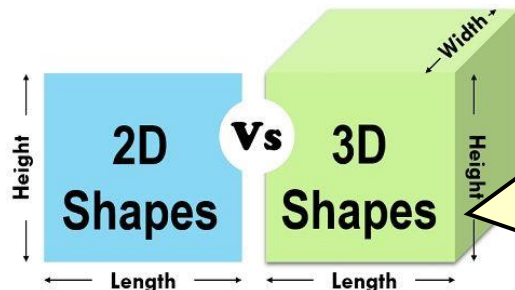
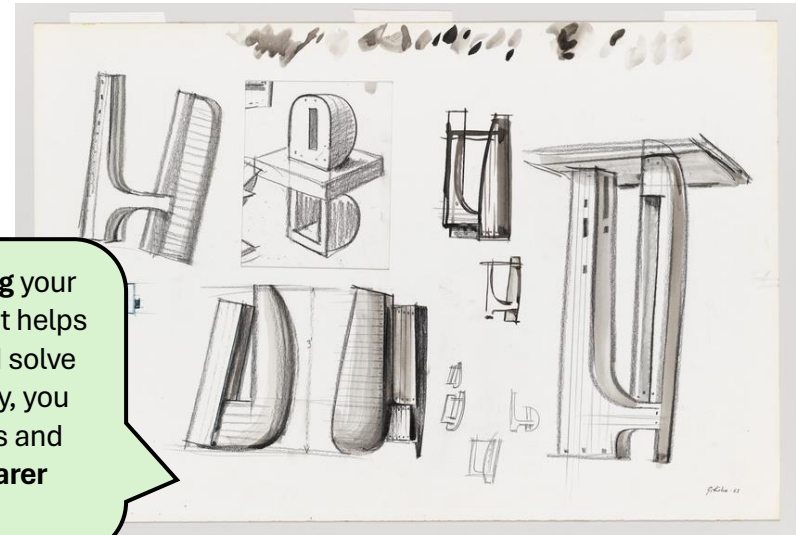


These are the **four steps** we follow when making a **clay sculpture**. You should **recall** following these steps for your **Year 7 Pop Art food sculpture**.



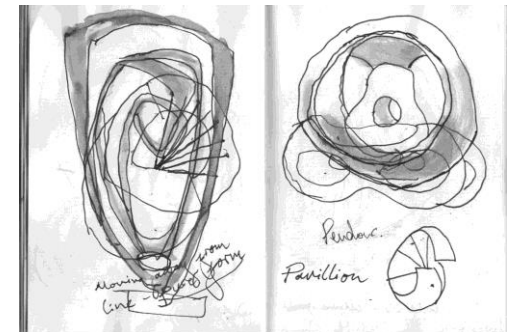
A **sculpture** is a piece of art that you can **see and touch** because it's made in **three dimensions**. Unlike a drawing or painting, which is flat, a sculpture has **height, width, and depth**.

Sketching and designing your sculpture before making it helps you **plan your ideas** and solve problems early. This way, you save time and materials and create a **stronger, clearer sculpture**.



2D (two-dimensional) art is flat. It has only height and width, like a drawing or painting on paper or a screen. You can see the shape and colour, but it doesn't have depth, so you can't walk around it or see it from different sides.

3D (three-dimensional) art has **height, width, and depth**. It's real and takes up space, like a sculpture or model. You can look at it from all sides and sometimes even touch or walk around it.



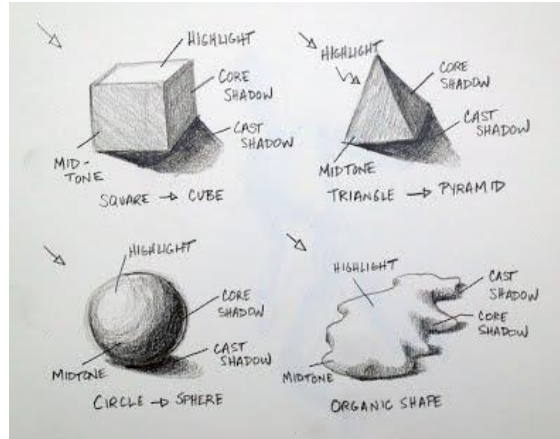
Theoretical Knowledge

Common materials used to create sculptures:

clay, plaster, wood, metal, wire, found objects, papier-mâché.

Basic tools:

carving tools, modelling tools, wire cutters, glue, sandpaper.



A **shape** can be **transformed** into a **form** by **adding tone**. **Highlights, mid-tones and shadows** can create a sense of **depth**. We use tone to make our designs look **three dimensional**.

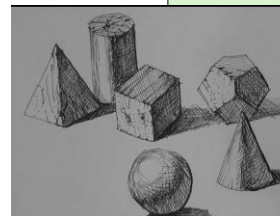
Key Terms:

Shadows = dark tones

Mid-tones = grey tones

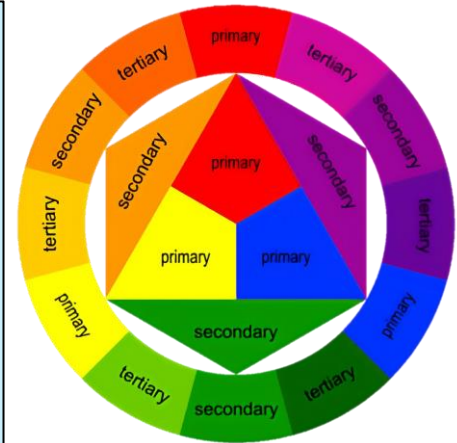
Highlights = white tones

Charcoal is a **drawing material** made by burning wood until it's black and soft. It's great for making **dark, bold lines** and shading because you can smudge it to create smooth **shadows** and **textures**. Artists like using charcoal because it's easy to blend and can make drawings look **dramatic** and **full of depth**.



Harmonious colours are **next to each other** on the colour wheel, and they **blend** well together. Example: Red, Orange and Yellow.

Complementary colours are **opposite** each other on the colour wheel, they make each other **stand out**. Example: Purple and Yellow.



Wax resist works by using a **waxy material**, like **oil pastel**, to draw on paper first. When you **paint** or **ink** over it, the wax stops the ink from sticking to those parts, so the waxy areas stay the original colour and **create patterns or shapes**.



Theoretical Knowledge



Courtney Mattinson

Courtney Mattison is an **American artist** born in 1985, known for her **large ceramic sculptures** that show the **delicate** beauty of **coral reefs** and the **environmental problems** they face. She studied marine ecology and environmental science, which inspires her to create detailed wall-mounted sculptures using stoneware and porcelain clay. Her artworks often show **bright, colourful coral turning white**, which represents **coral bleaching** caused by **climate change**. Through her art, Mattison wants to raise awareness and encourage people to care for and protect the oceans.

Henry Moore

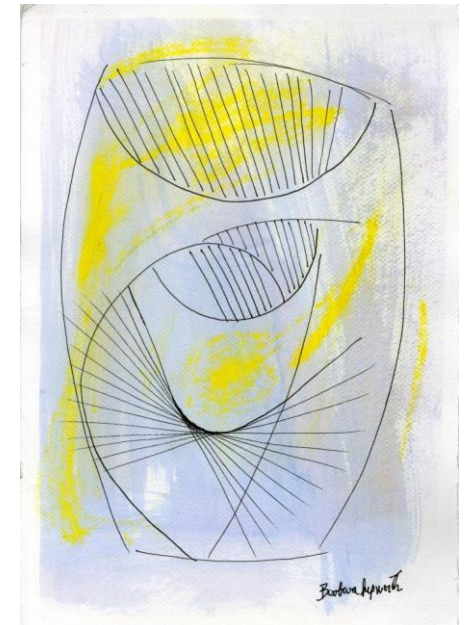


Henry Moore was a famous **British sculptor** who lived from **1898 to 1986**. He is well known for his **large abstract sculptures**, often made from **stone or bronze**. Moore was inspired by **nature**, especially **human bodies** and **landscapes**, and he liked to create **smooth, rounded shapes**. He also often made holes in his sculptures to play with light and space. His work is powerful and helps people think about the connection between people and the world around them.

Barbara Hepworth was a famous **British sculptor** who lived in the **20th century**. She was inspired by **nature**, especially the **shapes** of rocks, trees, and the countryside around her home. Hepworth liked to explore how **space** worked in her sculptures, often **carving holes** and openings to let light pass through and create interesting shapes. She used materials like **stone, wood, and bronze**, carefully shaping them with tools to make smooth, simple, and powerful artworks. Her sculptures help people feel calm and **connected to the natural world**.



Barbara Hepworth



Computing: Y8 Term 1



CYBER SECURITY: YOUR ESSENTIAL GUIDE

WHAT IS CYBER SECURITY?

Making sure our networks, devices, and data are safe from hackers and online threats.



ONLINE THREATS



Hacker

Someone who gains unauthorized access to systems.



Phishing

Fake emails or websites designed to trick users into giving away sensitive details.



Malware

Malicious software designed to damage or gain unauthorized access to a computer system.



Unsecure Wi-Fi

Wireless networks that lack proper encryption, exposing data to interception.

PROTECTION METHODS



PASSWORDS

Use strong, unique passwords and change them regularly.



FIREWALLS

Software that blocks unauthorized network access to your computer.



ANTIVIRUS SOFTWARE

Scans your computer for viruses and stops them.

MALICIOUS CODE & ATTACKS



VIRUS

A program that spreads by copying itself and attaching to files.



WORM

Replicates itself independently to spread over computer networks.



TROJAN HORSE

Disguised as legitimate software to trick users into installing it.

THE DIFFERENCE BETWEEN DATA AND INFORMATION

Data

Raw facts and figures like codes, numbers, and images that have no context on their own.



Information

Data with context, like a school report or bank statement.

CYBER SECURITY LEGISLATION



Data Protection Act 2018

Controls how personal information is used by organizations, businesses, or the government to protect individuals' privacy rights.



Computer Misuse Act 1990

Makes unauthorized access to computer systems, intentional damage via malware, or cyber attacks illegal.



AI LITERACY KEYWORDS:

YOUR ESSENTIAL GUIDE



Artificial Intelligence (AI)

Computer systems that adjust their outputs based on data or rules.



Dataset

A collection of information used to train an AI system.



Bias

When something is unfair towards or against someone.



Algorithm

A set of step-by-step instructions to solve a problem.



Training

The process of an AI system learning from data.



Digital Footprint

A trail of data you leave behind online.



Training

The robot learns to perform tasks and analysis.

The process of an AI system learning from data.



Echo Chamber

A space where you are only exposed to similar views.



Critical User

A user who makes well-informed judgements about digital content and systems.



DT: Y8 Term 1



Key Words and Definitions



A	is for	Aesthetics		Aesthetics means what does the product look like? What is the: Colour? Shape? Texture? Pattern? Appearance? Feel? Weight? Style?
C	is for	Cost		Cost means how much does the product cost to buy? How much does it: Cost to buy? Cost to make? How much do the different materials cost? Is it good value?
C	is for	Customer		Customer means who will buy or use your product? Who will buy your product? Who will use your product? What is their: Age? Gender? What are their: Likes? Dislikes? Needs? Preferences?
E	is for	Environment		Environment means will the product affect the environment? Is the product: Recyclable? Reuseable? Repairable? Sustainable? Environmentally friendly? Bad for the environment? 6R's of Design: Recycle / Reuse / Repair / Rethink / Reduce / Refuse
S	is for	Size		Size means how big or small is the product? What is the size of the product in millimeters (mm)? Is this the same size as similar products? Is it comfortable to use? Does it fit? Would it be improved if it was bigger or smaller?
S	is for	Safety		Safety means how safe is the product when it is used? Will it be safe for the customer to use? Could they hurt themselves? What's the correct and safest way to use the product? What are the risks?
F	is for	Function		Function means how does the product work? What is the products job and role? What is it needed for? How well does it work? How could it be improved? Why is it used this way?
M	is for	Material		Material means what is the product made out of? What materials is the product made from? Why were these materials used? Would a different material be better? How was the product made? What manufacturing techniques were used?

Design Brief	What the project requires you to do to solve a problem or design for a need/client
Specification	What requirements the product you are designing needs to meet
Concept	A concept is defined as an <u>abstract idea</u> . An original idea.
Realisation	A design idea that is brought to life - made in 3D
Annotate	Explanations about your ideas, how to make them, materials, where you got your inspirations from
Evaluate	Objectively discuss what works well and what didn't when designing and making your products
Design Ideas	Your initial thoughts and sketches that solve the design brief
Development	Your chosen and best idea changed to make it better - using SCAMPER
Isometric Drawing	A final drawing that is in 3D, it shows 3 sides of your product
To scale	This means your drawing is at the actual size in mm's 1:1
Innovative	A brand new idea that nobody has thought of before

Theoretical Knowledge - Research

Product Life Cycles

Cradle to Grave in Product Design

"Cradle to Grave" means looking at the entire life of a product – from the moment it's made to the moment it's thrown away. Think of it like the life story of a product!

The Life Story of a Product:

1. Cradle (Beginning)

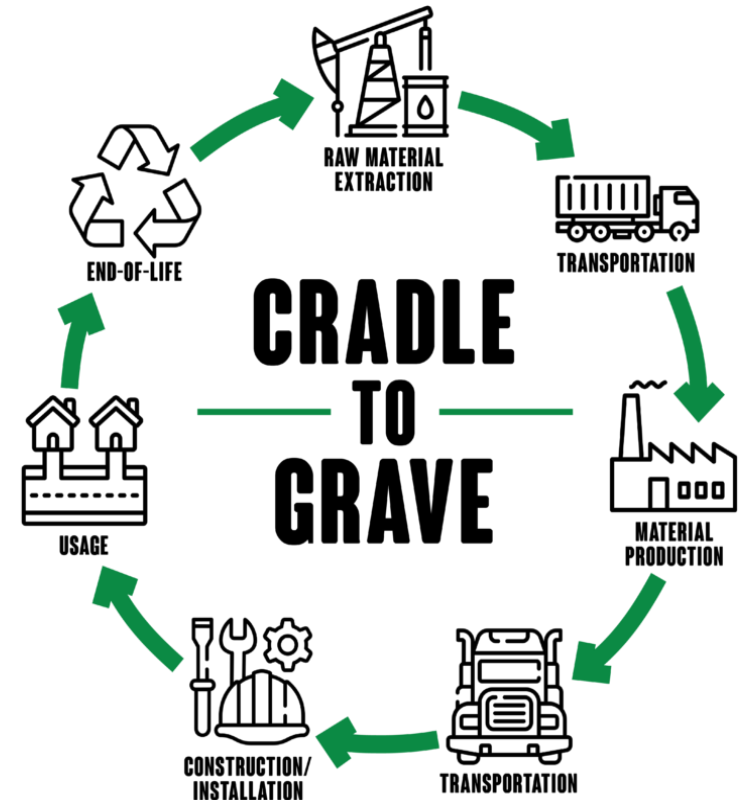
This is when the product is designed and made. It includes choosing materials (like plastic, metal, or wood) and using energy to make it.

2. Use (Middle)

This is when someone buys and uses the product. It might use electricity, water, or other resources while being used.

3. Grave (End)

This is when the product is thrown away or recycled. Some products go to landfill, while others can be reused or turned into something new.



Why is it important?

Designers use "Cradle to Grave" thinking to:

- Reduce waste
- Use eco-friendly materials
- Make products last longer
- Help the environment

Theoretical Knowledge

Canvas Tote Bag and Sustainability Issues

Environmental Benefits

Reusable: Unlike plastic bags, canvas bags can be used **hundreds of times**, reducing waste.

Biodegradable: Made from natural materials like cotton, they break down more easily than plastic.

Reduces Plastic Pollution: Using canvas bags helps cut down on the number of plastic bags that end up in oceans and landfills.

Feature	Canvas Bag	Plastic Bag
Sustainability	Highly sustainable, reusable and made from biodegradable material	Not sustainable - generally single use and made from non-biodegradable material
Durability	Very durable, can be used many times	Not durable, can tear easily
Cost	Higher initial cost but cheaper in the long run compared to buying plastic bags repeatedly	Very cheap but generally used once
Environmental Impact	Low impact, reduces plastic waste	High impact, pollutes land and can harm wildlife

Other benefits of using Tote Bags

Durability

- Canvas is strong and sturdy, so it can carry heavy items without tearing.
- They last a long time, which means fewer bags are needed over time.

Cost-Effective

- Even though they might cost more at first, they save money in the long run because you don't need to keep buying new bags.



Theoretical Knowledge

Lino Printing

What is Lino Printing?

Lino printing (short for linoleum printing) is a type of relief printing. That means you carve a design into a surface, roll ink onto it, and then press it onto paper to make a print.

1. Start with a Simple Design

- Use bold lines and simple shapes.
- Avoid tiny details – they're harder to carve and print clearly.

2. Transfer Your Design Carefully

- Draw directly on the lino with a soft pencil, or use tracing paper to transfer your design.
- Remember: your print will come out backwards, so reverse any text!

3. Use Carving Tools Safely

- Always carve away from your hands.
- Use a bench hook or non-slip mat to keep the lino steady.
- Start with shallow cuts and go slowly.

4. Apply Ink Evenly

- Use a brayer (roller) to roll out ink until it makes a soft "hiss" sound – that means it's ready!
- Roll ink onto the lino in thin, even layers.

5. Press Firmly and Evenly

- Use a baren, spoon, or your hands to press the paper onto the inked lino.
- Rub all over to make sure the ink transfers well.

6. Clean Up After Printing

- Wash your lino, tools, and roller with warm soapy water.
- Dry everything well so it lasts longer.

Designers and Artists

Sophie Munns is an Australian visual artist best known for her work exploring the **beauty, science, and cultural importance of seeds**. Her art is deeply connected to nature, especially the **life cycle of plants**, and she uses her creativity to raise awareness about **biodiversity and sustainability**.

Sophie Munns' art is not just beautiful – it's meaningful. It reminds us that:

- Seeds are the beginning of life.
- Protecting biodiversity is essential.
- Art can help us understand and care for the natural world.



Drama: Y8 Term 1





DRAMA Knowledge Organiser: Key Vocabulary Y8 HT1

DRAMA TECHNIQUES

Strategies used to communicate meaning to an audience

VOCAL SKILLS

The way you use your voice to communicate your character's intention & emotions.

PHYSICAL SKILLS

Using your face, body, walk & stance to show emotion, age and character traits.

KEY WORD	DEFINITION	KEY WORD	DEFINITION	KEY WORD	DEFINITION
Still image	Creating a frozen picture to represent a moment	Volume	How loudly or quietly you speak.	Facial Expression	How you communicate your character's emotion using your face.
Mime	Acting without words	Projection	To speak loudly and clearly without shouting	Body Language	How you communicate your character's emotions using your body.
Thoughts Aloud	The character tells the audience their thoughts	Articulation	Clear and precise speech	Eye Contact	Used to reveal relationship or status between characters – can be fixed or withdrawn
Slow-motion	Choreography making it look like time is moving slowly. It is a great way of highlighting important or dramatic moments	Emphasis	The stress on a certain word(s) when speaking to indicate particular importance or meaning	Gestures	Movements of a particular body part, often the hand, to display meaning.
Hot seating	Actors are asked questions while in character to develop a deeper understanding of their characters personality and thoughts	Pace	The speed at which you talk e.g. rushing/ speaking quickly if your character is excited or scared.	Proxemics	The distance between actor & actor/ actor & audience or actor & object and what that communicates.

MELODRAMA: Sweeney Todd

MELODRAMA: *a sensational dramatic piece with exaggerated characters and exciting events intended to appeal to the emotions*

TENSION: *A feeling that the story is building up towards something exciting happening; creates anticipation for the audience.*

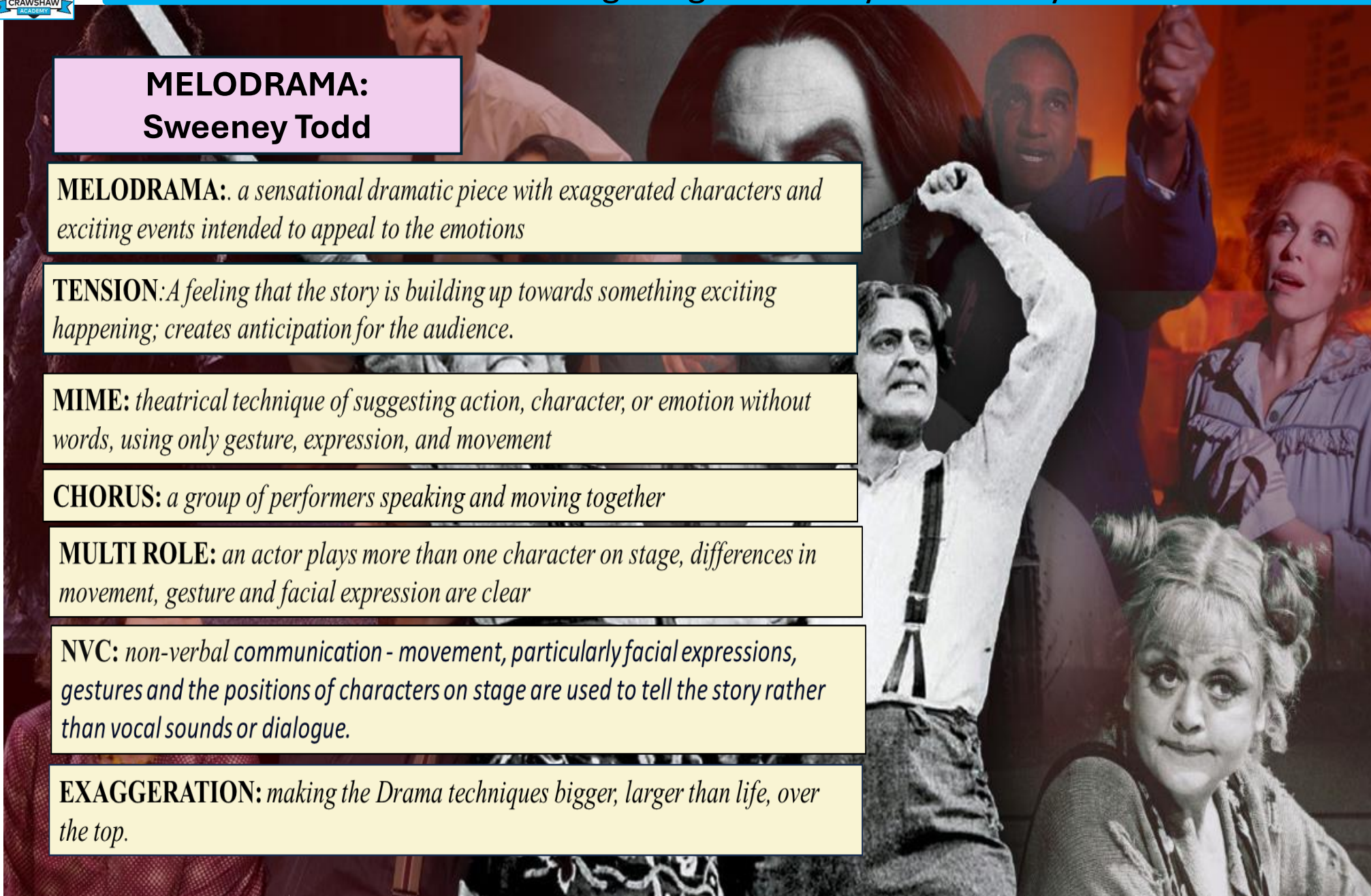
MIME: *theatrical technique of suggesting action, character, or emotion without words, using only gesture, expression, and movement*

CHORUS: *a group of performers speaking and moving together*

MULTI ROLE: *an actor plays more than one character on stage, differences in movement, gesture and facial expression are clear*

NVC: *non-verbal communication - movement, particularly facial expressions, gestures and the positions of characters on stage are used to tell the story rather than vocal sounds or dialogue.*

EXAGGERATION: *making the Drama techniques bigger, larger than life, over the top.*



English: Y8 Term 1



Keywords and Definitions

Term	Definition
Injustice	A situation where unfair treatment or inequality is present
Oppression	Prolonged cruel or unjust treatment, often by those in power
Patriarchy	A system where men hold power and dominate in roles of leadership
Discrimination	Unjust treatment of different groups based on race, gender, etc.
Prejudice	Preconceived opinion not based on reason or experience
Exploitation	Taking unfair advantage of people or resources for personal gain
Suffering	The experience of pain, hardship, or distress
Domination	Control or power over others, often enforced by force or pressure

Knowledge

What is the context of each poem?

'England in 1819' – Percy Bysshe Shelley

Context: Inspired by the Peterloo Massacre (1819). Shelley was a radical poet and critical of the monarchy and government corruption.

'Aunt Jennifer's Tigers' – Adrienne Rich

Context: Written in 1950s America. Reflects early feminism and criticises patriarchy.

'The United Fruit Co.' – Pablo Neruda

Context: Critiques US corporate exploitation in Latin America.

'Thirteen' – Caleb Femi

Context: Inspired by racist policing, stop-and-search, and adultification of Black boys in the UK

'Still I Rise' – Maya Angelou

Context: Written during the Civil Rights Movement. Responds to racism, slavery, and sexism.

Poet's use language techniques to create meaning

- **Shelley uses alliteration** ('old, mad, blind, despised, and dying King' and 'dregs of their dull race') to **create a sense of anger towards the monarchy.**
- Rich's **tigers symbolise fierceness and boldness** - the qualities Aunt Jennifer does not and cannot embody as a woman in 1950s America.
- **Femi uses metaphor** ('supernovas') to highlight the potential bright futures of young people, but also to hint at a darker, less optimistic path for the future of the speaker.

Extension knowledge

The structure of a poem can support the main message:

- **Aunt Jennifer's Tigers** - the strict rhyme scheme symbolises Aunt Jennifer's entrapment.
- **Thirteen** – The use of free verse (e.g. makes the poem resemble the everyday speech of a child recounting an experience), emphasises the speaker's vulnerability.

Knowledge Organiser: Describing Gothic Settings

Tier 2 Vocabulary



Gothic writing

- Gothic is a style of writing characterised by gloom, mystery, fear, and death. It often has supernatural elements (e.g. ghosts, witches, vampires, monstrous creatures).
- Unlike horror stories, Gothic stories tend to create an atmosphere of tension and suspense for the reader rather than relying on gore and violence to scare the reader.
- Typical Gothic settings are abandoned or isolated locations such as crumbling castles, eerie graveyards, dungeons, haunted houses, ruined mansions, dark forests, and desolate moors. Features such as secret passages and locked rooms in mansions add to the sense of mystery.
- Gothic stories often take place at night, and the weather is usually terrible – dark, gloomy, stormy, misty, etc.
- Animals associated with bad luck or thought to be sinister often feature (such as black cats, spiders, bats, crows), therefore adding to the ominous atmosphere.
- Gothic stories often use pathetic fallacy, sensory language and personification to create an eerie atmosphere.

Word	Definition	As a picture	In a sentence
Gothic (adj)	A style of writing that is typically gloomy, mysterious, and frightening		Gothic writing often involves isolated settings.
Desolate (adj)	(Of a place) uninhabited, bleak, lonely, abandoned		The house stood alone on the desolate moor.
Ominous (adj)	Giving a worrying impression that something bad is about to happen		An ominous chill set into the air.
Eerie (adj)	Strange in a frightening way		The moon cast an eerie , milky glow on the graveyard.
Sinister (adj)	Menacing, threatening, malign		The trees twisted in a sinister dance.

Tier 3 Vocabulary

Setting

where and when something takes place

Atmosphere
the feeling or mood

Figurative language

similes, metaphors, and personification

when the weather reflects the emotions of a character, e.g. rain when someone is sad

Pathetic fallacy



a state of feeling anxious or scared about what might happen next

Suspense



Extension knowledge:

you can enhance your writing by...

- Using colour imagery
- Using a semantic field (e.g. of death) to create a gothic atmosphere
- Using sentence structure to create suspense

Food & Nutrition: Y8 Term 1



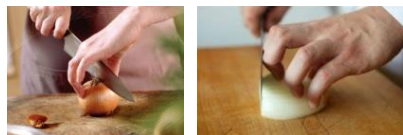
Keywords and Definitions

Cross contamination	the unintentional transfer of harmful bacteria from one person, object or place to another.
Hygiene	Cleanliness in washing hands, wearing aprons, tying hair back and washing up.

Knowledge

KNIFE SAFETY

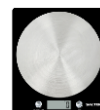
- Never walk around with a knife.
- Hold by the handle and point it downwards.
- Use the correct bridge or claw grip.



Replace knives in the knife block when cleaned.

WEIGHING

1. Place the scales on a flat surface.
2. Turn the scales on.
3. Select 'g' for grams.
4. Place a bowl on the scales and press the on/off/zero button again so the display reads 0.
5. Add ingredients.



Store foods in the fridge at 5°C



CHOPPING BOARDS



WASHING UP

Use hot, soapy water.

Use a dishcloth or brush to wash up.

Make sure everything is clean for the next person.

Tea towel to dry.

DO NOT PUT DIRTY EQUIPMENT ON THE DRAINING BOARD.



WHITE DIALS - HOB CONTROLS



BLACK DIAL - GRILL/TOP OVEN CONTROLS

BLACK DIAL - OVEN CONTROLS

ALWAYS PREHEAT YOUR OVEN

APRONS NEED TO BE WORN AND TIED.





Food & Nutrition Knowledge Organiser: Y8

Equipment



Measuring jug



Large mixing bowl



Sharp knife



Red chopping board (raw meat)



Black spoon



White spoon



Fish slice



Weighing Scales



Grater



Teaspoon

Tablespoon



Table knife



Fork



Colander



Whisk



Sieve



Frying pan



Saucepan



Muffin tin

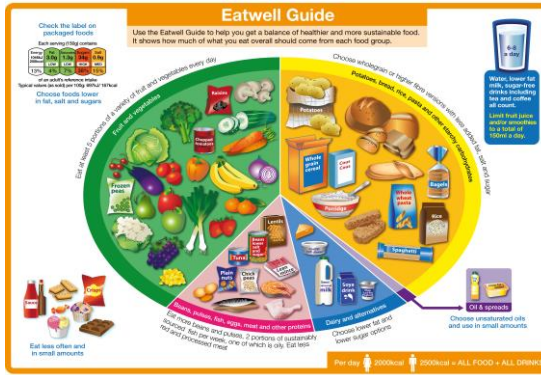


Baking tray



Can opener

Keywords and Definitions



Carbohydrates (Starches and sugars)	Needed for energy	Starchy foods: bread, pasta, rice, cereals, oats
Protein	Needed for growth, repair and maintenance of body cells	Meat, fish, cheese, eggs, beans, pulses, nuts, tofu
Fats & Oils	Needed for warmth, insulation and fat soluble vitamins	Oils from vegetables, seeds and nuts. Butter.

Fibre – helps the body move food through the digestive system. It is not digested by the body.
Sources include wholemeal breads, rice, pasta, fruit and vegetables.

Knowledge

<u>Vitamin</u>	<u>Function (what it does in the body)</u>	<u>Source (the foods we get it from)</u>
Vitamin A	Helps against infection; eye health; keeps skin healthy	Yellow, red and green vegetables, eggs, cheese, oily fish
B vitamins	Nervous system; releases energy from food.	Breakfast cereals, eggs, milk, meat, fish, mushrooms, oats, bananas
Vitamin C	Protects cells and keeps them healthy; maintains healthy skin, blood vessels, bones and cartilage.	Citrus fruits, strawberries, broccoli, potatoes
Vitamin D	Keeps bones, teeth and muscles healthy.	Oily fish, red meat, egg yolks, breakfast cereals
Vitamin E	Healthy skin and eyes; immune system and protects against illness and infection.	Nuts and seeds, vegetable oil, sunflower oil
Vitamin K	Needed for blood clotting and helping wounds to heal. Keeps bones healthy.	Leafy green vegetables such as broccoli and spinach, vegetable oils and cereal grains.

<u>Mineral</u>	<u>Function (what it does in the body)</u>	<u>Source (the foods we get it from)</u>
Iron	Making red blood cells which carry oxygen around the body.	Red meat, beans, nuts, dried fruit, breakfast cereals.
Calcium	Builds bones and keeps teeth healthy. Blood clotting.	Milk, cheese and other dairy foods. Green leafy veg, soya drinks, fish.
Magnesium	Turns food into energy	Spinach, nuts, wholemeal bread
Potassium	Controls balance of fluids in the body; helps the heart work properly.	Bananas, nuts, seeds, beans and pulses, fish, beef, chicken
Salt	Keeps level of fluids balanced in the body.	Small amounts from cheese, bread, meat products.

Knowledge

Deficiency: not having enough of something that is needed by the body

Vitamin	Symptoms of deficiency
Vitamin A	Dry eyes, night blindness, infertility, acne, infections
Vitamin B complex	Sore tongue, depression, pins and needles, depression
Vitamin C	Dry skin, nosebleeds, wounds take a long time to heal, bleeding gums
Vitamin D	Tiredness, bone pain, muscle weakness, depression
Vitamin E	Frequent infections, muscle weakness, vision problems.
Vitamin K	Bruising, heavy periods, excessive bleeding from cuts and wounds

Mineral	Symptoms of deficiency
Iron	Anaemia - tiredness and lack of energy shortness of breath, noticeable heartbeats, paler than usual skin, headaches
Calcium	Rickets (weak and soft bones, not growing properly) Osteoporosis (soft bones that break easily) Tiredness and muscle aches.
Magnesium	Vomiting, feeling sick, muscle weakness, tiredness
Potassium	High blood pressure, tiredness, constipation, kidney problems, cramps, abnormal heart rhythm
Sodium	Nausea, vomiting, headaches, confusion, drowsiness, cramps

Skills

Pineapple Upside Down Cake

Ingredients

- 1 small can pineapple pieces/chunks
- 6 glace cherries
- 2tbs golden syrup
- 100g self raising flour
- 100g soft margarine
- 100g caster sugar
- 2 eggs



Method

1. Preheat oven to Gas 4, 180°C,
2. Place muffin cases in muffin tin.
3. Put a small amount of golden syrup in each bun case with $\frac{1}{2}$ a cherry.
4. Drain the pineapple and break into smaller pieces.
5. Place some pineapple in each bun case.
6. Place the margarine and sugar into a bowl and cream together until light and fluffy..
7. Add the eggs and flour and fold together gently, using a tablespoon.
8. Spread the mixture over the pineapple in each bun case.
9. Bake for about 20 minutes.

Bread Rolls

Ingredients

- 250g Strong White Flour
- 7g Dried Yeast
- $\frac{1}{2}$ tsp sugar
- $\frac{1}{2}$ tsp salt



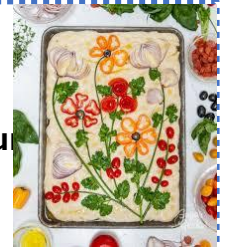
Method

1. Preheat Oven 220°C, GM7
2. Place flour in a bowl
3. At one edge of bowl add sugar and yeast
4. At the other edge add salt
5. Make a well in the centre of the flour and add approx. 100ml of warm water.
6. Mix with a knife adding more water until the mixture forms a dough.
7. Knead the dough for 5 mins
8. Let the dough rest for 5 mins
9. "Knock" the dough back and divide into 3 to 4 pieces
10. Shape your bread rolls
11. Place on tray in oven. Place another tray with 2cm of hot water on the bottom of the oven.
12. Bake for 20 mins until golden and "hollow" sounding

Focaccia

Ingredients

- 225g of strong bread flour
- 1tsp salt
- $\frac{1}{2}$ sachet of yeast
- 2 $\frac{1}{2}$ tsp olive oil
- 100ml warm water



Pepper, onion, tomato, rosemary to decorate

Method

1. Make the dough, as per the bread roll recipe, adding the oil to the water.
2. Shape the dough into a flat rectangle, or your desired shape.
3. Using your index finger, make holes in the dough, all over.
4. Brush the dough with a little olive oil and a sprinkle of salt.
5. Using the vegetables to create your desired pattern on your dough.
6. Cook the focaccia for 15 to 20 mins until browned.

Skills

Samosas



Ingredients

1 pack pre-made filo pastry
 1 medium potato
 1 small carrot (diced)
 50g frozen peas
 1 small onion (sliced)
 1 clove garlic
 1 tsp spice mix (2 teaspoons turmeric, 1 teaspoon cumin, 1/2 teaspoon garam marsala, 1/2 teaspoon chilli flakes, 1/2 tsp cinnamon)
 lemon juice

Method

1. Preheat oven to 200C GM 6.
2. Peel and dice the potato (1cm cubes)
3. In a pan boil the carrot and potato for 8 mins. Add the peas and cook for 2 mins. Drain and set the veg aside.
4. In a frying pan, fry the onion for 3 minutes then stir in the garlic, and spice mix and cook for a further minute. Then remove from the heat.
5. Add the cooked veg to the pan and mix. Layout the filo pastry and cut into approx. 10cm wide strips
6. Brush the pastry with oil. Add a spoon of mixture. Fold the strip over the filling in triangles. Repeat for all strips.
7. Bake for 25 mins

Mince Pies



Ingredients

150g plain flour
 75g butter
 Cold water

1 jar mincemeat

Method

1. Preheat oven to 190C GM 5.
2. Rub fat into flour until it looks like breadcrumbs.
3. Add a teaspoon of cold water and form into a dough (add another teaspoon if needed).
4. Roll out dough and cut discs and any other shapes required.
5. Line tray with pastry discs
6. Spoon a tablespoon of mincemeat into each mince pie
7. Add pastry shape on top and seal the edges
8. Bake for 15mins until golden.

Mayonnaise



Ingredients

1 egg yolk
 125ml vegetable oil
 1 tsp Dijon mustard
 1 tsp white wine vinegar or lemon juice

Method

1. Tip the egg yolk and mustard into a bowl, season with salt and pepper and whisk together until completely combined.
2. Whisking constantly, add a small drop of oil and whisk until completely combined, then add another drop and continue a drop at a time until the yolks and oil combine and start to thicken.
3. Once the oil and eggs are coming together add the oil a bit more at a time, but be patient, as adding the oil too quickly will cause the mayonnaise to split and curdle.

Skills

Pizza Whirls



Ingredients

Ingredients

250g Strong White Flour

7g Dried Yeast

$\frac{1}{2}$ tsp sugar

$\frac{1}{2}$ tsp salt

50g pizza sauce/tomato puree

100g grated cheese

Pizza toppings as desired

Method

1. Preheat Oven 220°C, GM7
2. Make the bread dough as per the bread roll recipe.
3. Roll out to a rectangle.
4. Spread the pizza sauce/tomato puree across the dough. Add the toppings.
5. Sprinkle the cheese on top.
6. Starting from the short edge, roll the dough up. Cut the dough into 8 pieces.
7. Place on a baking tray, leaving room between each for the dough to spread.
8. Bake for 20 -25 mins until risen and golden brown..

Brownies



Ingredients

100g butter

225g caster sugar

70g dark chocolate, broken into pieces

2 large eggs

50g plain flour

25g cocoa powder

Method

1. Heat the oven to 190C/170C Fan/Gas 5.
2. Place the muffin cases into the muffin tin.
3. Gently melt the butter and the sugar together in a large pan. Once melted, **take off the heat** and add the chocolate. Stir until melted.
4. Beat in the eggs, then stir in the flour and the cocoa powder.
5. Pour the brownie batter into the muffin cases and bake for 20 - 30 minutes, or until the edges of the brownie are just firm but there is still a gentle wobble in the middle.
6. Take out of the oven and leave to cool in the tin.

CHEF CHALLENGE - PASTA

Ingredients

Method

100g plain flour

1 egg



Method

1. Place the flour on the work surface and make a hole in the middle (so it looks like a volcano.)
2. Break the egg into the hole and mix the egg into the flour with your fingers.
3. Work the dough until it comes together as a ball
4. Use the pasta machine to roll the pasta as thin as possible (go down the settings to make it thinner OR use a rolling pin to roll out the dough on a floured surface.
5. Cut into shapes or use the cutter on the pasta machine to make tagliatelle or linguini.
6. Cook in boiling water for a few minutes until the pasta rises to the top.

Skills

Burritos

Ingredients

- 125g minced beef
- 4 tortillas
- 1 garlic clove
- 1 onion
- 1tsp seasoning
- $\frac{1}{2}$ can chopped tomatoes
- $\frac{1}{2}$ can black beans or kidney beans
- 100g rice (or precooked rice)

Method

1. Place rice in a saucepan. Add just enough cold water to cover it. Place on the hob to boil. Cook for 15 minutes.
2. Peel and chop the garlic and dice the onion.
3. Heat a tablespoon of oil in a frying pan. Add the garlic and seasoning. Crumble the mince and fry until browned.
4. Add the chopped tomatoes, simmer for 5 minutes. Add the beans, then simmer for 15 minutes.
5. Drain the rice.
6. Place the beef sauce and the rice along the middle of the tortilla. Add any other toppings.
7. Fold over the ends and roll up to seal. Secure by wrapping with foil.



Chilli

Ingredients

- 1 large onion
- 1 red pepper
- 2 cloves garlic
- 250g mince
- 1 can kidney beans
- $\frac{1}{2}$ to 1 tsp of chilli powder
- 1 tsp paprika
- 1 beef/vegetable stock cube
- 1 tin chopped tomatoes
- 1 rounded tbs of tomato puree

Method

1. Chop onion and pepper into small pieces.
2. Peel and finely chop 2 garlic cloves.
3. Put 1 tbsp oil into your pan and leave it for 1-2 minutes until hot (a little longer for an electric hob).
4. Add the onion and cook, stirring frequently, for about 5 minutes. Tip in the garlic, red pepper, 1 heaped tsp hot chilli powder or 1 level tbsp mild chilli powder, 1 tsp paprika.
5. Give it a good stir, then leave it to cook for another 5 minutes, stirring occasionally.
6. Add the mince. Keep stirring for 5 minutes.
7. Crumble 1 beef stock cube into the pan. Add tomatoes and tomato puree..
8. Bring the whole thing to the boil, give it a good stir and put a lid on the pan. Turn down the heat until it is gently bubbling and leave it for 20 minutes.
9. Drain kidney beans, then add to the chilli. Stir.



Sweet and Sour Chicken

Ingredients

- 1 Chicken breast or Quorn Fillets
- 1 onion
- 1 can pineapple chunks
- 2 tablespoons sugar
- 2 tablespoons vinegar
- 1 tablespoon tomato puree
- 1 tablespoon soy sauce
- 1 tablespoon cornflour
- 2 tablespoons oil
- Red/Yellow/Green Pepper

Method

1. Peel and chop the onion and **pepper (optional)**. Cut the chicken into small pieces.
2. Heat the oil in a large pan or wok and fry the onion and **pepper**.
3. Add the chicken pieces and fry over a high heat for five mins, stirring occasionally.
4. Drain the juice from a can of pineapple into a measuring jug and add water to make 250ml.
5. Add the pineapple chunks to the chicken.
6. Mix the rest of the ingredients into the measuring jug.
7. Pour the liquid into the pan and simmer for 10 mins, stirring occasionally.



Skills

Savoury Rice

Ingredients

- 1 onion
- 3 mushrooms
- ½ red pepper
- 150g long grain rice
- 1 stock cube
- 50g peas
- 2 x tsp curry powder



Method

1. Dissolve the stock cube in boiling water in a saucepan.
2. Add the rice.
3. Prepare all the vegetables - dice the pepper, slice the mushroom, dice the onion.
4. Add the vegetables to the pan of rice along with the curry powder.
5. Turn the heat down and simmer for 15 minutes.
6. Serve.

Chow Mein

Ingredients

- 150g medium egg noodles
- dash toasted sesame oil
- 2 skinless chicken breast fillet
- 2 tbsp light soy sauce
- 1 tsp five-spice powder
- 1 tsp chilli sauce (optional)
- 1 tbsp cornflour
- 1 red pepper, seeds removed and thinly sliced
- 150g beansprouts
- 1 spring onion, sliced lengthways



Method

1. Cook the noodles in a pan of boiling water for 2-3 minutes, until al dente, or according to packet instructions. Drain, then rinse under cold running water and drain again. Drizzle with a dash of sesame oil and toss through to prevent the noodles from sticking to each other.
2. Put the chicken strips in a bowl and season with a dash of light soy sauce, the five-spice powder and chilli sauce, if using. Mix well, then lightly dust the chicken strips with the cornflour.
3. Heat a wok until smoking and add the groundnut oil, then add the chicken and stir fry for 3-4 minutes, or until the chicken is golden-brown and cooked through.
4. Add the red pepper and stir fry for 1 minute, then add the bean sprouts and spring onion and stir fry for 30 seconds. Stir in the cooked noodles and season with the soy sauce, a dash of sesame oil and freshly ground black pepper.
5. Pile the noodles onto a serving plate and serve immediately.

Lemon Curd

Ingredients:

- 2 lemons, washed
- 100g sugar
- 50g butter
- 2 eggs



Method

1. Zest the lemon - do not remove more than the yellow zest.
2. Cut the lemons in half and remove the juice.
3. Break the eggs in a saucepan and whisk gently.
4. Add the butter, sugar, lemon zest and lemon juice to the saucepan.
5. Place over a gentle heat and whisk continually.
6. Continue whisking until the mixture thickens (about 7 to 10 mins.) Pour into the warmed jar. When cooled, place in the fridge to set.

Skills

Fruit Tart

Ingredients

180g crumbled digestive biscuits
40g butter or margarine
200g cream cheese
120g lemon curd
Berries to decorate



Method

1. Melt the butter, then add the crushed biscuits. Press the mixture into the sides and bottom of a round tin or foil dish. Place in the freezer for about 10-15 minutes.
2. Mix the cream cheese and lemon curd and spread into the bottom of the chilled tart tin, covering the base evenly.
3. Arrange the fruit gently (so it doesn't sink in too much) on top of the cream cheese/lemon mixture in a decorative pattern.
4. Place the tart in the fridge. It does need to get properly cold in order to set enough for the tart to be unsprung and sliced

Fish Cakes

Ingredients

100g white fish/tin of mackerel, tuna or salmon
250g potatoes, cooked and mashed
15gmargarine
1 egg
Breadcrumbs
2 tbs flour



Method

1. Place the cold mashed potato and drained/flaked fish into a bowl. REMEMBER TO REMOVE ANY SKIN OR BONES. Season with salt and pepper.
2. Using a fork, mash the mixture together.
3. Divide the mixture into 6 pieces and shape into fish cakes. Coat each one in flour, then beaten egg and then breadcrumbs.
4. Heat a small amount of oil in a frying pan. Fry the fish cakes very gently, turning over once.
5. Drain on kitchen paper.

Low Fat Korma

Ingredients

1 chicken breast, skinless and boneless
OR cauliflower florets, red pepper, green beans, tin of chick peas etc
40g (1 1/2oz) natural yoghurt
1 medium onion, finely chopped
2 garlic cloves, finely chopped
2.5cm (1in) piece root ginger, peeled and grated
1 ½ tbsp korma curry paste
2 tbsp double cream
1 tsp soft brown sugar



Method

1. Cut the chicken breasts/or the vegetables into bite-sized pieces, season well.
2. Heat the oil in a frying pan or wok over a medium heat. Add the onions, garlic and ginger and cook, stirring frequently, for 5 mins. Add the chicken and cook through until white.
3. Turn the heat down.
4. Add the curry paste and cook for another 2-3 mins. Add 100ml water and bring to the boil. Turn down the heat and simmer, uncovered, for 10-12 mins or until the liquid has reduced by half.
5. Stir in the yogurt, cream and sugar and cook for another 10 mins or until the chicken is tender and cooked through, stirring all the while.

Geography: Y8 Term 1



KEY IDEAS



Population = the number of people living in an area.

You Must Know



The world's population is over 8 billion.



It is expected to reach around 10 billion by the 2060s.



India is the world's most populated country (over 1.4 billion people).



People are unevenly distributed across the Earth.

Lesson 1 – Where Do People Live?

Dense Population

Places where lots of people live.

- Europe
- South Asia
- East Asia
- Parts of North America



Sparse Population

Places where few people live.

- Sahara Desert
- Antarctica
- Amazon Rainforest
- Himalayas



Why do people settle somewhere?



Reliable water supply



Fertile soil



Flat land



Suitable climate



Good transport



Jobs and opportunities

Remember!

People live where life is easier.

Lesson 2 – Why Is the World's Population Growing?

Before 1800

- High birth rates
- High death rates
- Slow population growth



Since 1800

Population has grown rapidly because:

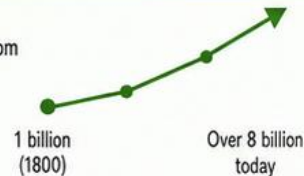
- ✓ Better healthcare
- ✓ Vaccines
- ✓ Clean drinking water
- ✓ Improved sanitation
- ✓ Better farming

People now live much longer.

Many countries still have high birth rates, especially in Africa and Asia.

Quick Fact

Population has grown from 1 billion (1800) to over 8 billion today.

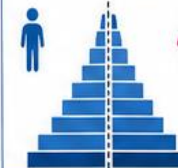


Lesson 3 – Population Pyramids

A population pyramid shows the number of males and females in different age groups.

Three Types

Expansive



- High birth rate
- Lots of young people
- Rapid population growth

Example: Nigeria

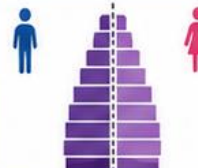
Stationary



- Similar numbers in most age groups
- Stable population

Example: UK

Contracting



- More elderly people
- Fewer children
- Ageing or shrinking population

Example: Japan

Why are population pyramids useful?



future population growth



demand for schools



demand for healthcare



future workforce

Lesson 4 – Nigeria: A Rapidly Growing Population

Key Facts



Population:

- 123 million (2000)
- Over 220 million today

Average age: 18 years



Population pyramid: Expansive

Problems caused by rapid population growth



Pressure on schools



Pressure on hospitals



Housing shortages



Busy transport



Unemployment



Rapid city growth

Leading to:



• overcrowding



informal settlements



• traffic congestion



• pollution



waste problems

Lesson 5 – International Migration



“Migration” = Movement of people from one country to another.



Immigration
Moving into a country.



Emigration
Moving out of a country.



Moving UK → France

- Emigrates from the UK
- Immigrates to France



Forced Migration

People have no choice but to move because of:



War



Conflict



Persecution



Natural disasters

Important Words



Refugee

A person forced to leave their country and officially recognised as needing protection.



Asylum Seeker

Someone asking another country for protection while waiting for a decision.

Lesson 6 – Why Do People Migrate?

Voluntary Migration

People choose to move for:



Work



Education



Family



Better quality of life



Mexico → USA



Push Factors

Reasons people leave.

- ✗ Unemployment
- ✗ Low wages
- ✗ Poor healthcare
- ✗ Limited education

Pull Factors

Reasons people move somewhere.

- + More jobs
- + Higher wages
- + Better education
- + Higher standard of living



Remember

Push = Problems

Pull = Possibilities



Lesson 7 – The Impacts of Migration

Benefits for Migrants



Better-paid jobs



Higher income



Better education

Challenges for Migrants



Learning a new language



Finding work



Adapting to a new culture

Impacts on Countries



Mexico

Challenges

- Brain drain (loss of skilled workers)

Benefits

- Remittances (money sent home)



USA

Benefits

- More workers
- New skills
- Greater cultural diversity

Challenges

- Pressure on housing
- Pressure on schools
- Pressure on healthcare



Key Vocabulary

Word	Meaning	Word	Meaning
Population	Number of people living in a place	Migration	Moving from one place to another
Population density	How crowded a place is	Immigration	Moving into a country
Settlement	A place where people live	Emigration	Leaving a country
Birth rate	Number of births per 1,000 people each year	Refugee	Person forced to leave their country and recognised for protection
Death rate	Number of deaths per 1,000 people each year	Asylum seeker	Person waiting for a decision on protection
Population pyramid	Graph showing age and gender structure	Push factor	Reason to leave a place
		Pull factor	Reason to move somewhere
		Brain drain	Loss of skilled workers
		Remittance	Money migrants send home

Year 8 Population – The Essentials

- ✓ Population is unevenly distributed.
- ✓ The world's population is still growing.
- ✓ Better healthcare has reduced death rates.
- ✓ Population pyramids show future population trends.
- ✓ Nigeria has a young, rapidly growing population.
- ✓ Migration can be voluntary or forced.
- ✓ Push factors make people leave.
- ✓ Pull factors attract people.
- ✓ Migration creates both opportunities and challenges for everyone involved.



Lesson 1: Weather

Key Vocabulary

Word	Definition
Weather	The condition of the atmosphere over a short period of time.
Climate	The average weather of a place over about 30 years.
Meteorologist	A scientist who studies the weather.

The Six Elements of Weather

	Temperature
	Precipitation (rain, snow, sleet or hail)
	Humidity
	Cloud cover
	Air pressure
	Wind



Remember!

Weather changes daily.
Climate changes very slowly.



Weather Instruments

Weather Element	Instrument
	Thermometer
	Rain gauge
	Anemometer
	Wind vane
	Barometer

Lesson 2: Clouds

What are clouds?

Clouds are made from millions of tiny water droplets or ice crystals.



Types of Cloud

Cloud	Appearance	Weather
Cirrus	Thin and wispy	Fair weather
Cumulus	Fluffy like cotton wool	Dry and pleasant
Stratus	Grey, flat blanket	Drizzle and light rain
Cumulonimbus	Tall storm cloud	Heavy rain and thunderstorms



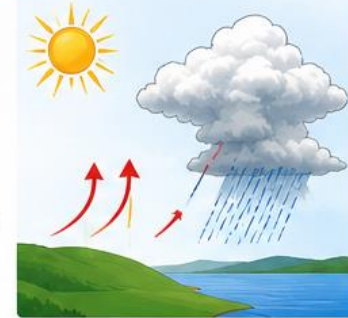
Remember:

Cumulonimbus = Thunderstorms

Lesson 3: Convectional Rainfall

How convectional rainfall forms

- The Sun heats the ground.
- Warm air rises.
- Rising air cools.
- Water vapour condenses.
- Cumulonimbus clouds develop.
- Heavy rain falls.



Thunderstorms

- Ice particles collide inside the cloud.
- This creates an electrical charge.
- Electricity is released as lightning.
- Lightning heats the air rapidly.
- Heated air expands to create thunder.



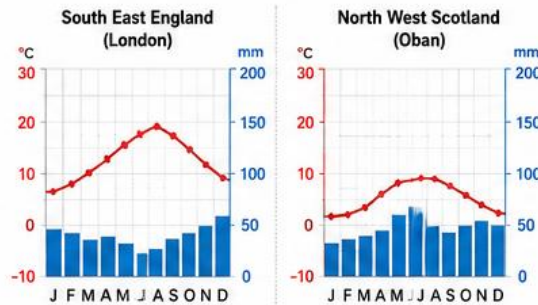
Lesson 4: Climate Graphs

Climate Graphs show:

- Temperature → Line graph (°C)
- Rainfall → Bar chart (mm)

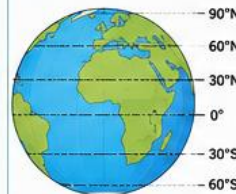
Comparing UK Climate

South East England	North West Scotland
Warmer	Cooler
Drier	Wetter
Lower rainfall bars	Higher rainfall bars



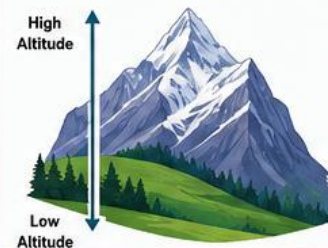
Lesson 5: Factors Affecting UK Climate

Latitude



- Distance north or south of the Equator.
- Places further north receive less solar energy.
- Northern UK is generally cooler.

Altitude



- Height above sea level.
- As altitude increases, temperature decreases.
- Mountain areas are colder than lowlands.



Remember:

Higher = Colder

Further North = Colder



Lesson 6: Air Masses

What is an air mass?

A large body of air with similar temperature and moisture.



Key Terms

UK Air Masses

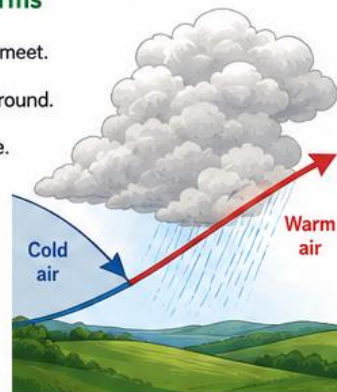
Word	Meaning
Tropical	Warm
Polar	Cold
Maritime	Wet (formed over sea)
Continental	Dry (formed over land)

Air Mass	Weather
Tropical Maritime	Warm and wet
Polar Maritime	Cool and showery
Polar Continental	Cold and dry
Tropical Continental	Hot and dry
Arctic Maritime	Very cold with snow showers

Lesson 7: Frontal Rainfall

How frontal rainfall forms

- Two different air masses meet.
- Cold air stays near the ground.
- Warm air is forced to rise.
- Rising air cools.
- Condensation occurs.
- Clouds form.
- Rain falls.



Remember!

The UK often experiences frontal rainfall because several air masses meet over Britain.

Lesson 8: Heatwaves

What is a heatwave?



A period of much hotter weather than normal lasting several days.



Causes

- Usually caused by Tropical Continental air.
- Climate change is making heatwaves more common.

Advantages

- More tourism
- Busier seaside businesses
- Higher sales for cafés and ice cream shops
- Better harvesting conditions for some crops

Disadvantages

- Dehydration
- Heat exhaustion
- Heatstroke
- Drought
- Wildfires
- Damage to roads and railway tracks

Key Words to Learn

Word	Meaning
Climate	Average weather over 30 years
Weather	Day-to-day atmospheric conditions
Condensation	Water vapour cooling into liquid water
Convection	Warm air rising
Air Mass	Large body of air with similar characteristics
Front	Boundary where two air masses meet
Latitude	Distance north or south of the Equator
Altitude	Height above sea level
Heatwave	Several days of unusually hot weather

Quick Knowledge Check

Can you answer these without looking?



- What is the difference between weather and climate?
- Which instrument measures air pressure?
- Which cloud brings thunderstorms?
- What are the six elements of weather?
- Which type of rainfall is most common in the UK?
- What happens to temperature as altitude increases?
- Which air mass is hot and dry?
- Why are heatwaves becoming more common in the UK?



History: Y8 Term 1



Keywords and Definitions

Slavery – A system where people are treated as property – they are bought and sold. They have no rights or freedoms.

Transatlantic Slave Trade – Enslavement of African people brought over to the Americas to work on plantations.

Empire – A group of countries owned by one country.

Colony – A country owned by another country.

Triangular Trade - The trade system consisting of Europe, Africa and the Americas.

Middle Passage: Transporting enslaved Africans to the Americas.

Slave Ship – A ship carrying enslaved Africans on the Middle Passage. Ships could be packed *tight pack* or *loose pack*.

Tight Pack – As many slaves packed on as possible (often on their sides) but more died.

Loose Pack – Less slaves packed on but more survived.

Americas - Countries of North and South America e.g. the Caribbean and Southern States of America.

Slave Auction - Where Slaves were sold for the highest bid.

Plantation – Huge farms where slaves cultivated (farmed) crops for their masters.

Knowledge

Slavery has existed for thousands of years. Between the 1500s and 1800s, about 12–15 million Africans were captured, kidnapped and taken across the Atlantic Ocean to the Americas. This was called the transatlantic slave trade. It had a lasting effect on Africa and the Americas. It also helped create unfair treatment and inequalities that still affect many people today.

The Slave Trade Triangle:

1. European ships took cloth, guns, iron pots, swords and other manufactured goods to Africa and exchanged them for African slaves.
2. Ships loaded with slaves crossed the Atlantic to the Americas where they were sold (called the Middle Passage).
3. Ships loaded with sugar, cotton, tobacco, returned to Europe.



Middle Passage

The **Middle Passage** lasted roughly 6-8 weeks and many slaves did not survive due to horrifying conditions on ships. Men were kept below deck, separate from women and children who were above.

- **Conditions** - Slaves would be chained together in unsanitary conditions that led to disease outbreaks and many deaths, especially in *tight pack* ships.
- **Exercise** – Slaves were forced to dance for entertainment and exercise.
- **Resistance** – Some slaves tried to resist by jumping overboard to their death, attacking their capturers or refusing food.

Slave Auctions

After surviving the Middle Passage, slaves would be prepared for sale by being made to look healthy. Slaves could be sold by *auction* or *scramble*. Auctions were often advertised in newspapers.

- **Preparation** – Slaves were rubbed with oil, wounds would be filled with tar.
- **Auction** – Sold to the highest bidder.
- **Families** – They were often split up and would never see each other again. Slaves would then be transported to their owner's plantation.



Key Dates

Key Dates –

1807 – British Parliament passed the *Abolition of the Slave Trade Act*, making the Transatlantic Slave Trade illegal for British subjects and ships.

1831 – *Nat Turner's Rebellion* – A significant uprising in Virginia, resulted in the death of 60 white people.

1833 – *Slavery Abolition Act* passed in the British Empire, freeing all slaves.

1791-1804 – *The Haitian Revolution* – The only successful slave rebellion, it ended slavery in Haiti and established the first independent Black republic.

1861-1865 – *The American Civil War*. A conflict between the Northern states (Union) and Southern states (Confederacy).

1863 – *The Emancipation Proclamation* issued by U.S. President Lincoln that declared all slaves (including in the Southern states) were now free.

1865 – *The Thirteenth Amendment* to the U.S. Constitution abolished slavery in the U.S. after the civil war.

Knowledge

Life on plantations was very hard. Enslaved people worked long hours, had little food, and lived in small, crowded cabins. If an enslaved woman had a baby, the law treated the child as the property of the plantation owner. Enslaved people were often punished harshly by plantation owners and overseers. Some resisted slavery in different ways. In the late 1700s, the Abolitionist Movement grew stronger in Britain. During the 1800s, campaigns to end slavery succeeded, and slavery was abolished in the British Empire and later in the United States.

Abolitionists

Abraham Lincoln (1809 – 1856) – US President who banned slavery.



William Wilberforce (1759 – 1833) – A British MP and a leader of the abolition movement in British Parliament.



Olaudah Equiano (1745-1797) – Former slave who wrote and published his horrific experiences as a slave.



Toussaint Louverture (1743 – 1803) – Leader of the Haitian Revolution.

Punishments for slaves:

- Enforced discipline and maintained control.
- Included whipping, shackling, mutilation, and branding.
- Used to instil fear and suppress any resistance or rebellion.
- Punishment was a key element in the oppressive structure of slavery, perpetuating the dehumanization of the enslaved.

Passive Resistance

This was often hidden and took place day to day. It included things such as maintaining cultural practice e.g. African names, language and music. Other things include working slowly, breaking tools/stealing and feigning illness.

Active Resistance

This form of resistance was less frequent. It included revolts, murder and attempts to escape the plantation e.g. Maroon communities.



Key Words

Plantation – Huge farms where slaves cultivated (farmed) crops for their masters.

Slave Punishment –

Punishments to instil fear and obedience included whipping, branding and beating.

Overseer – Directed the daily work of slaves.

Slave Resistance – Slaves resisted their servitude in many different ways

Active Resistance (*Would be noticed*) – running away, forming rebellions or violent uprisings.

Passive Resistance (*Would not likely be noticed*) – Working slowly, pretending to be ill, or breaking and stealing equipment.

Rebellion – the violent action or process of resisting authority.

Abolition – The movement to end slavery.

Abolitionist – Someone aiming to help end slavery.

American Constitution – Laws that govern the U.S.A.

Parliament – Where MPs discuss Britain's laws and pass new ones.

Maroon Communities – A group of former slaves who escaped and lived outside of plantations.

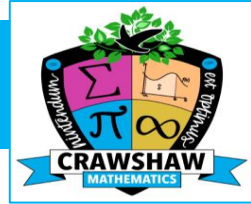
Mathematics: Y8 Term 1





Mathematics

Year 8 HALF TERM 1:



R2 Ratio

In this chapter, students develop a strong understanding of ratio as a way of comparing quantities and solving problems involving proportional reasoning. The chapter begins with understanding the concept of ratio and interpreting it in a variety of contexts. Students then apply this understanding to a range of ratio problems, including situations where the whole, a part, or the difference is given. These steps help students to reason flexibly and apply logical thinking to break down problems step by step. The chapter continues with simplifying ratios, an essential skill for comparing values, and moves on to expressing ratios in the forms $1:n$ and $n:1$, which are commonly used in real-life contexts such as scale models and maps. Students also learn to compare ratios and fractions, reinforcing links between different representations of proportional relationships. The chapter concludes with multi-step ratio problems, encouraging students to choose appropriate methods and apply their knowledge with confidence.

R3 Proportion and scale

In this chapter, students explore proportional reasoning and its applications in scale and measurement. The chapter begins with understanding direct proportion, where one quantity increases in relation to another, and moves on to using conversion graphs to solve real-life problems. Students apply proportional reasoning to convert between currencies, reinforcing their understanding of scaling up and down. They then learn to interpret and draw direct proportion graphs, connecting graphical representations to equations and tables. The focus then shifts to similar shapes, where students use scale factors to find missing lengths and understand geometric enlargement. They also practise converting metric units, preparing them for solving practical problems with mixed units of measure. The chapter concludes with scale diagrams and interpreting maps using scale and ratios, helping students apply their knowledge in real-world contexts such as design, architecture, and geography. This chapter strengthens both mathematical fluency and spatial awareness.

A4 Algebraic manipulation

In this chapter, students build fluency and confidence in working with algebraic expressions and develop essential manipulation skills that underpin much of secondary mathematics. The chapter begins with learning how to form algebraic expressions from words and situations, followed by distinguishing between formulae, expressions, identities, and equations—a key step in developing algebraic reasoning. Students then practise simplifying expressions, including working with directed numbers in both general manipulation and substitution. They develop skills in expanding and factorising single brackets and then combine techniques to expand and simplify expressions involving multiple terms. As students progress, they explore more advanced algebraic techniques, including expanding double brackets of the form $(x \pm a)(x \pm b)(x \pm a)(x \pm b)$, and factorising quadratic expressions, setting the groundwork for solving equations and working with functions in later years. Throughout the chapter, students focus on accuracy, structure, and flexibility in their methods, allowing them to approach algebraic problems with confidence.

NAME: _____
TARGET GRADE: _____

YEAR 8 — AUTUMN 1 R2 - RATIO

What do I need to be able to do?

- Step 1 Understand ratio
- Step 2 Ratio problems (whole given)
- Step 3 Ratio problems (part given)
- Step 4 Ratio problems (difference given)
- Step 5 Simplify ratios
- Step 6 Express ratios in the form m and n (1E)
- Step 7 Compare ratios and fractions
- Step 8 Solve problems with ratio

Sparx Maths

Understand ratio – M885, M801
Ratio problems (whole given) – M801, M525 Ratio problems (part given) – M801, U753
Ratio problems (difference given) – U753, U865 Simplify ratios – M885, U687
Express ratios in the form m and n (1E) – M543
Compare ratios and fractions – M267, U176 Solve problems with ratio – M801, U577, U676

Keywords

Ratio: a statement of how two numbers compare
Equal Parts: all parts in the same proportion, or a whole shared equally
Proportion: a statement that links two ratios
Order: to place a number in a determined sequence
Part: a section of a whole
Equivalent: of equal value
Factors: integers that multiply together to get the original value
Scale: the comparison of something drawn to its actual size

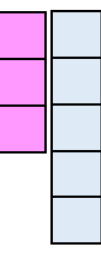


Representing a ratio

For every 5 boys there are 3 girls



This represents the 5 boys This represents the 3 girls



This represents the 5 boys

Order is important

For every dog there are 2 cats



Dogs



Cats

1:2

The ratio has to be written in the same order as the information is given

eg 2:1 would represent 2 dogs for every 1 cat ✗

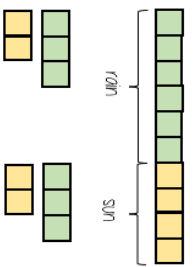
Simplifying a ratio

For every 6 days of rain there are 4 days of sun

6:4

Divide by 2

3:2



For every 3 days of rain there are 2 days of sun – when this happens twice the ratio becomes 6:4

Find the biggest common factor that goes into all parts of the ratio

For 6 and 4 the biggest factor (number that multiplies into them) is 2

Ratio In (or n:1)

This is asking you to cancel down until the part indicated represents 1

Show the ratio 4:20 in the ratio of In

The question asks that the part has to be 1:5
4:20
Divide by 4
1:5
This size has to be divided by 4 too – to keep in proportion

Therefore the n part does not have to be an integer for the use of question

Units are important

When using a ratio – all parts should be in the same units

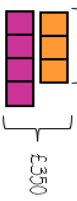


Sharing a whole into a given ratio

James and Lucy share £350 in the ratio 3:4
Work out how much each person earns

Model the Question

James Lucy
3:4



Find the value of one part

Whole: £350
7 parts to share between
(3 James, 4 Lucy)

£350 ÷ 7 = £50
one part = £50

Put back into the question

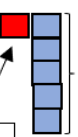
James Lucy
3:4
£150 £200
James - 3 x £50 = £150
Lucy - 4 x £50 = £200

Finding a value given In (or n:1)

Inside a box are blue and red pens in the ratio 5:1
If there are 10 red pens how many blue pens are there?

Model the Question

Blue Red
5:1



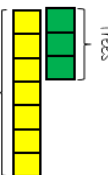
one part = 10 pens

Put back into the question

Blue Red
5:1
50:10
Blue pens - 5 x 10 = 50 pens
Red pens - 1 x 10 = 10 pens
There are 50 Blue Pens

Ratio as a fraction

Trees Flowers
3:7



There are 3 parts for trees

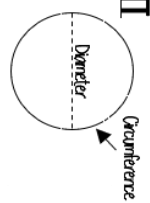
Fraction of trees

Number of parts of n group
Total number of parts

3/10

Tree parts 3 + Flower parts 7 = 10

PII



The ratio of a circles circumference to its diameter

NAME: _____

TARGET GRADE: _____

YEAR 8 — AUTUMN 1

R3 - PROPORTION AND SCALE

What do I need to be able to do?

- Step 1 Direct proportion
- Step 2 Conversion graphs
- Step 3 Convert between currencies
- Step 4 Direct proportion graphs
- Step 5 Similar shapes
- Step 6 Convert metre units
- Step 7 Scale diagrams
- Step 8 Interpret maps using scale and ratios

Keywords

- Ratio:** a statement of how two numbers compare
- Equal Parts:** all parts in the same proportion, or a whole shared equally
- Proportion:** a statement that links two ratios
- Order:** to place a number in a determined sequence
- Part:** a section of a whole
- Equivalent:** of equal value
- Factors:** integers that multiply together to get the original value
- Scale:** the comparison of something drawn to its actual size

Sparx Maths

Direct proportion – U721, U640 Conversion graphs – U652, U741
 Convert between currencies – U610 Direct proportion graphs – U721, U238
 Similar shapes – U551, U578, U630 Convert metre units – M774, U388
 Scale diagrams – M112 Interpret maps using scale and ratios – M112, M801, U5

Direct Proportion

As one variable changes the other changes at the same rate



4 cans of pop - £2.40

$$\begin{aligned} 4 \text{ cans of pop} &= £2.40 \\ \div 4 & \quad \times 2 \\ 1 \text{ can of pop} &= £0.60 \end{aligned}$$

This multiplier is the same in the same way that this would be for ratio

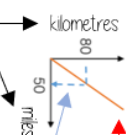
This is a multiplicative change

$$\begin{aligned} 4 \text{ cans of pop} &= £2.40 \\ \times 3 & \quad \div 3 \\ 12 \text{ cans of pop} &= £7.20 \end{aligned}$$

Sometimes this is easiest if you work out how much one unit is worth first
 e.g. 1 can of pop - £0.60

Conversion Graphs

Compare two variables



Labeling of both axes is vital

This is always a straight line because as one variable increases so does the other at the same rate
 To make conversions between units you need to find the point to compare — then find the associated point by using your graph.
 Using a ruler helps for accuracy
 Showing your conversion lines help as a 'check' for solutions

Conversion between currencies



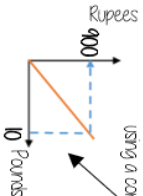
£1 = 90 Rupees



£1 = 90 Rupees

For every £1 I have 90 Rupees

Currency can be converted using a conversion graph



Convert 630 Rupees into Pounds

$$\begin{aligned} 630 \text{ Rupees} & \div 90 = 7 \\ \text{£} 7 & = 630 \text{ Rupees} \end{aligned}$$

Ratio between similar shapes



Angles in similar shapes do not change.
 e.g. if a triangle gets bigger the angles can not go above 180°

The two rectangles are similar.

3m

8m

45m

?m

Corresponding sides

$$\begin{aligned} 3\text{m} : 4.5\text{m} &= 1\text{m} : 1.5\text{m} \end{aligned}$$

$$\begin{aligned} 8\text{m} : 12\text{m} &= 1\text{m} : 1.5\text{m} \end{aligned}$$

Note
 Simplify to the same ratio

Understand Scale Factor

The two rectangles are similar.



This is a multiplicative change

Missing length

Use corresponding sides to calculate a scale factor

$$5\text{m} \times 3 = 15\text{m}$$

$$8\text{m} \times 3 = 24\text{m}$$

The car image is 10m



Image: Real life

$$10\text{m} \times 3 = 30\text{m}$$

$$30\text{m} \div 3 = 10\text{m}$$

The car in real life is 210cm

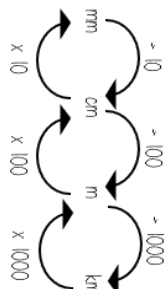


Image: Real life

$$210\text{cm} \times 7 = 1470\text{cm}$$

$$1470\text{cm} \div 7 = 210\text{cm}$$

Interpret maps with scale factors



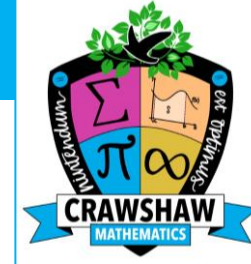
1 cm : 250,000 cm

Ratios need to be in the same units

$$\begin{aligned} 1\text{cm} &= 250\text{m} \\ 1\text{cm} &= 250,000\text{cm} \end{aligned}$$

For every km on my map is 250,000cm in real life





Year 8 HALF TERM 2:

A5 Coordinates and graphs

In this chapter, students explore coordinate geometry by plotting and interpreting graphs in all four quadrants. The chapter begins with reading and plotting coordinates in all four quadrants, and identifying lines parallel to the axes, laying the groundwork for understanding linear relationships. Students then learn to construct and interpret a table of values, using it to draw straight-line graphs. They explore familiar graphs such as $y=xy=x$ and extend this to lines of the form $y=mx$, introducing the concept of gradient and linking it to direct proportion. As they progress, students consider negative gradients and graph lines in the form $y=x+c$ and $y=mx+c$, gaining fluency in identifying and describing linear equations. Later in the chapter, students learn to find the midpoint of a line segment and apply coordinate methods to solve problems involving geometry and algebra. The chapter concludes with an introduction to quadratic graphs, helping students recognise curved graphs and understand how they differ from linear relationships. This progression prepares students for more advanced graph work involving functions and transformations.

N8 Multiplying & Dividing Fractions

In this chapter, students extend their understanding of fractions by focusing on multiplication and division, including applications with mixed numbers and algebraic expressions. The chapter begins with dividing and multiplying fractions by integers, helping students connect fraction operations to familiar number work. Students then move on to multiplying fractions, using visual models and numerical methods to build fluency. The concept of a reciprocal is introduced as a key idea in fraction division, supporting students as they learn to divide integers and fractions by unit fractions, and eventually progress to dividing any pair of fractions. With these foundations in place, students tackle more complex tasks involving the multiplication and division of mixed numbers, applying conversion techniques and accurate calculations. Finally, they apply their understanding to algebraic fractions, multiplying and dividing expressions that involve variables. Throughout the chapter, emphasis is placed on method selection, reasoning, and working systematically, preparing students for further work with rational numbers and algebraic manipulation.

G3 Symmetry and reflections

In this chapter, students deepen their understanding of symmetry, beginning with identifying line symmetry in a range of 2D shapes. They then explore rotational symmetry, recognising patterns and determining the order of rotation for regular and irregular figures. Students learn to reflect shapes in horizontal and vertical lines, developing spatial reasoning and accuracy in drawing. This skill is then extended to include reflections in diagonal lines, reinforcing students' understanding of geometric transformations. Later in the chapter, students work with reflections in lines given by an equation, such as $y = x$ or $x = -2$, connecting coordinate geometry with transformation skills. Finally, students practise how to describe reflections using mathematical language, supporting clear communication and reasoning. This chapter strengthens students' grasp of symmetry and transformations, laying a foundation for more advanced geometry involving congruence, transformations, and coordinate work.

NAME: _____

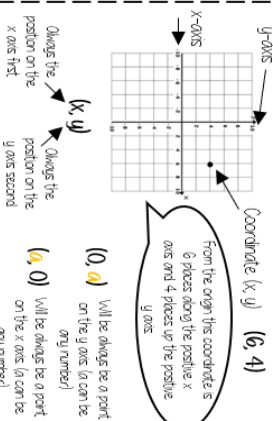
TARGET GRADE: YEAR 8 — AUTUMN 2

A5 - COORDINATES AND GRAPHS

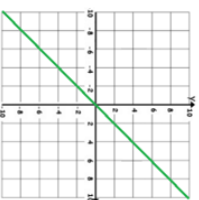
What do I need to be able to do?

- Step 1: Coordinates in all four quadrants
- Step 2: Lines parallel to the axes
- Step 3: Table of values
- Step 4: Recognise and use the line $y=x$
- Step 5: Lines of the form $y=mx$
- Step 6: Link $y=mx$ to direct proportion (E)
- Step 7: Introduce gradient ($y=mx$)
- Step 8: Lines with a negative gradient
- Step 9: Lines of the form $y=-x+c$
- Step 10: Lines of the form $y=mx+c$
- Step 11: Find the midpoint of a line segment (E)
- Step 12: Solve problems with coordinates and graphs
- Step 13: Quadratic graphs (E)

Coordinates in four quadrants



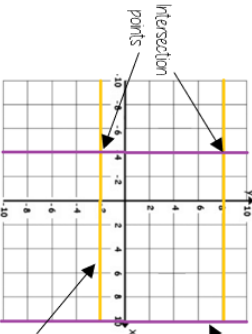
Recognise and use the line $y=x$



Examples of coordinates on this line (0, 0) (-3, -3) (8, 8)
The axes **scale is important** – if the scale is the same $y = x$ will be a straight line at 45°

This means the x and the y coordinate have the same value

Lines parallel to the axes



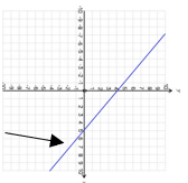
- Gradient:** the steepness of a line
- Intercept:** where two lines cross. The y-intercept where the line meets the y-axis
- Parallel:** two lines that never meet with the same gradient
- Co-ordinate:** a set of values that show an exact position on a graph
- Linear:** linear graphs (straight line) – linear common difference by addition/ subtraction
- Asymptote:** a straight line that a graph will never meet
- Reciprocal:** a pair of numbers that multiply together to give 1
- Perpendicular:** two lines that meet at a right angle

Keywords

Sparx Maths

Coordinates in all four quadrants – M618, U789
Lines parallel to the axes – M797, Table of values – M932, U741
Recognise and use the line $y = x - M932$, U741 Lines of the form $y = mx - U741$, U315
Link $y = mx$ to direct proportion (E) – U721, U640 Introduce gradient ($y = mx$) – U315, U477
Lines with a negative gradient – U741, U315 Lines of the form $y = x + c - U741$, U315
Lines of the form $y = mx + c - U315$, U684 Find the midpoint of a line segment (E) – M622, M311
Solve problems with coordinates and graphs (E) – M230, U741, U315
Quadratic graphs (E) – U984, U667, U601

Lines with negative gradients

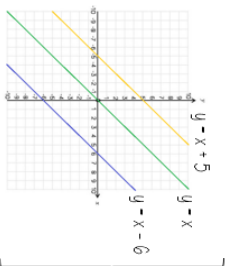


Any straight line graph with a negative x value has a negative gradient

Eg $y = -2x$
 $y = -x$ $y = x - 12$

Direction of all negative gradients

Lines in the form $y = x + a$

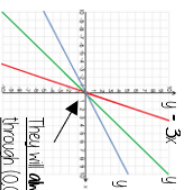


This is the line $y=x$ when the y and x coordinate are the same

Eg $y = x + 5$ is the line $y=x$ moved 5 places up the graph

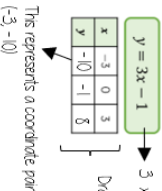
5 has been added to each of the x coordinates

Recognise and use the lines $y=kx$



The bigger the value of k, the **steeper** the line will be
The closer to 0 the value of k, the closer the line will be to the x axis

Plotting $y = mx + c$ graphs



You only need two points to form a straight line

Plotting more points helps you decide if your calculations are correct. If they do make a straight line

Remember to join the points to make a line

NAME: _____
TABLET GRADE: _____

YEAR 8 — AUTUMN 2

N8 - MULTIPLYING & DIVIDING FRACTIONS

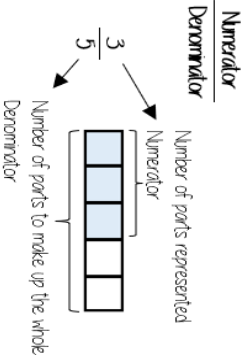
Sparx Maths

Divide a fraction by an integer - M110
Multiply a fraction by an integer - M157 Multiply fractions - M157, U475
Understand reciprocals - M216 Divide an integer by a fraction - M110
Divide a fraction by a unit fraction - M110 Divide fractions - M110, U544
Multiply and divide mixed numbers - M197, M265, U224, U538
Multiply and divide algebraic fractions (E) - U457, U824

What do I need to be able to do?

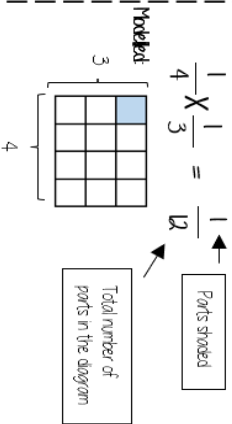
- Step 1 Divide a fraction by an integer
- Step 2 Multiply a fraction by an integer
- Step 3 Multiply fractions
- Step 4 Understand reciprocals
- Step 5 Divide an integer by a fraction
- Step 6 Divide a fraction by a unit fraction
- Step 7 Divide fractions
- Step 8 Multiply and divide mixed numbers
- Step 9 Multiply and divide algebraic fractions (E)

Representing a fraction



ALL PARTS of a fraction are of equal size

Multiplying unit fractions



Quick Multiplying and Cancelling down

$\frac{3}{5} \times \frac{4}{9}$

The 3 and the 9 have a common factor and can be simplified

$\frac{1}{5} \times \frac{4}{3}$

Quick Solving

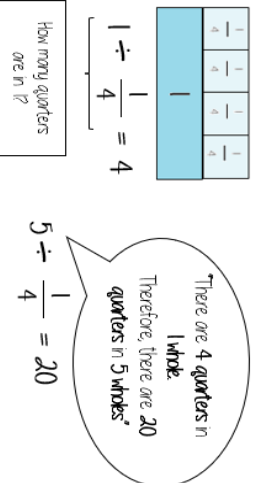
Multiply the numerators

Multiply the denominators

$1 \times 4 = 4$

$5 \times 3 = 15$

Dividing an integer by an unit fraction



Keywords

Numerator the number above the line on a fraction. The top number. Represents how many parts are taken

Denominator the number below the line on a fraction. The number represent the total number of parts.

Whole a positive number including zero without any decimal or fractional parts.

Commutative an operation is commutative if changing the order does not change the result.

Unit Fraction a fraction where the numerator is one and denominator a positive integer.

Non-unit Fraction a fraction where the numerator is larger than one.

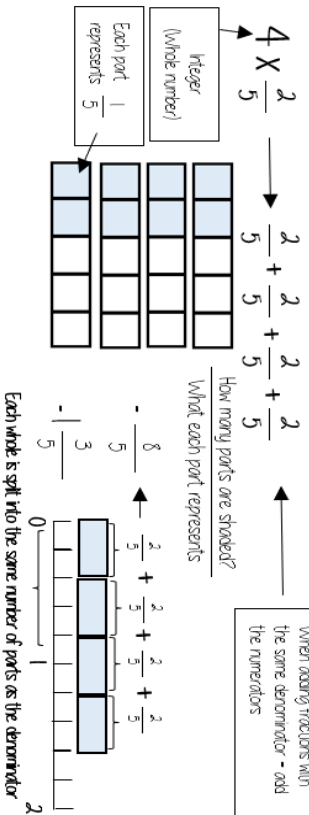
Dividend the amount you want to divide up.

Divisor the number that divides another number.

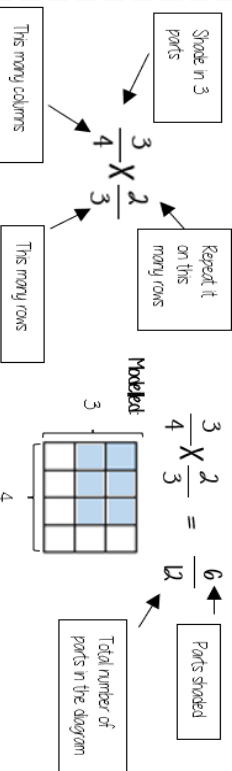
Quotient the answer after we divide one number by another eg dividend ÷ divisor = quotient

Reciprocal a pair of numbers that multiply together to give 1

Repeated addition = multiplication by an integer



Multiplying non-unit fractions



The reciprocal When you multiply a number by its reciprocal the answer is always 1

$3 \times \frac{1}{3} = 1$

$\frac{1}{3} + \frac{1}{3} + \frac{1}{3} = 1$

The reciprocal of 3 is $\frac{1}{3}$ and vice versa

Reciprocals for division

e.g. $5 \div \frac{1}{4} = 20$

$5 \times 4 = 20$

Multiplying by a reciprocal gives the same outcome

Dividing any fractions Remember to use reciprocals

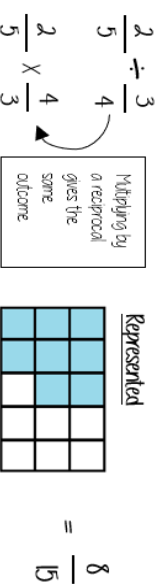
$\frac{2}{5} \div \frac{3}{4}$

Multiplying by a reciprocal gives the same outcome

$\frac{2}{5} \times \frac{4}{3}$

Represented

$\frac{8}{15}$



NAME:
TARGET GRADE:

YEAR 8 — AUTUMN 2

G3 - SYMMETRY AND REFLECTIONS

Sparx Maths

Line symmetry – M2A3
Reflect a shape in a horizontal or vertical line – M2A0
Reflect a shape in a diagonal line – M2A0
Reflect a shape given equation of a line (E) – U7A4
Describe a reflection (E) – U7A4

What do I need to be able to do?

- Step 1 Line symmetry
- Step 2 Rotational symmetry
- Step 3 Reflect a shape in a horizontal or vertical line
- Step 4 Reflect a shape in a diagonal line
- Step 5 Reflect a shape given equation of a line (E)
- Step 6 Describe a reflection (E)

Mirror line a line that passes through the center of a shape with a mirror image on either side of the line

Line of symmetry same definition as the mirror line

Reflected mapping of one object from one position to another of equal distance from a given line

Vertex a point where two or more line segments meet

Perpendicular lines that cross at 90°

Horizontal a straight line from left to right (parallel to the x axis)

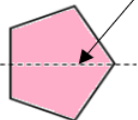
Vertical a straight line from top to bottom (parallel to the y axis)

Rotational Symmetry – A shape has rotational symmetry if it looks the same after being rotated around a central point

Describing Transformations – Clearly stating the type of transformation, the line of reflection, and the direction or position of the image

Lines of symmetry

Mirror line (line of reflection)

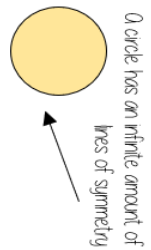


Rhombus
two lines of symmetry

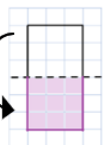
Parallelogram
No lines of symmetry



Shapes can have more than one line of symmetry...
This regular polygon (a regular pentagon has 5 lines of symmetry)

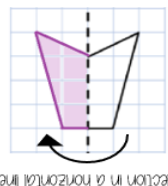


Reflect horizontally/vertically (1)

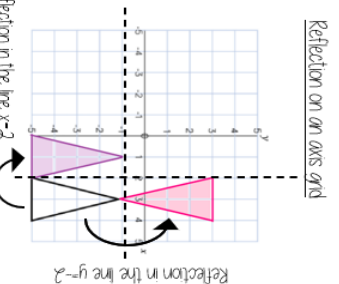


Reflection in a vertical line

Note a reflection doubles the area of the original shape



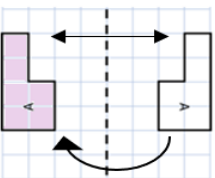
Reflection in a horizontal line



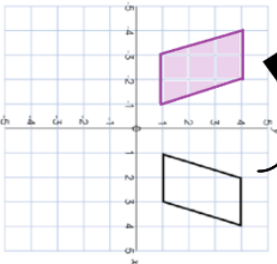
Reflection in the line $x=2$

Reflect horizontally/vertically (2)

All points need to be the same distance away from the line of reflection



Reflection in the line y axis – this is also a reflection in the line $x=0$



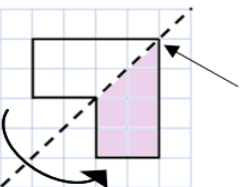
Lines parallel to the x and y axes

REMEMBER

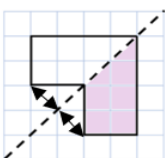
Lines parallel to the x-axis are $y = \dots$
Lines parallel to the y-axis are $x = \dots$

Reflect Diagonally (1)

Points on the mirror line don't change position



Fold along the line of symmetry to check the direction of the reflection

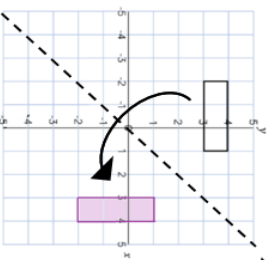


Drawing perpendicular lines

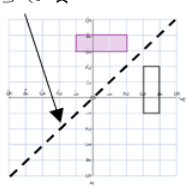
Perpendicular lines to and from the mirror line can help you to plot diagonal reflections

Reflect Diagonally (2)

This is the line $y = -x$ (every y coordinate is the same as the x coordinate along this line)



This is the line $y = -x$
The x and y coordinate have the same value but opposite sign



Turn your image

If you turn your image it becomes a vertical/horizontal reflection (also good to check your answer this way)

MFL: Y8 Term 1



Il y a...

il y a...	- there is/are...
il n'y a pas de...	- there isn't/aren't...
un café	- a café
un centre commercial	- a shopping centre
un château	- a castle
un cinéma	- a cinema
une église	- a church
un hôtel	- a hotel
un marché	- a market
un parc	- a park
un restaurant	- a restaurant
un stade	- a stadium
une piscine	- a swimming pool
une boulangerie	- a bakery
une mosquée	- a mosque
des magasins	- some shops
des musées	- some museums

Opinions

je pense que	- I think that
à mon avis	- in my opinion
c'est	- it is
bien	- good
super	- super
joli	- pretty
intéressant	- interesting
ennuyeux	- boring
industriel	- industrial
historique	- historical
vraiment nul	- really rubbish
assez grand	- quite big
trop petit	- too small
j'aime ça	- I like that
j'adore ça	- I love that
je déteste ça	- I hate that
je n'aime pas ça	- I don't like that

Activities in Town

aller au concert	- to go to a concert
faire du bowling	- to go bowling
faire les magasins	- to go shopping
faire du vélo	- to go bike riding
faire une promenade	- to go on a walk
manger au café	- to eat at a café
jouer au foot	- to play football
visiter les jardins	- to visit the gardens
visiter les monuments	- to visit the monuments
visiter les musées	- to visit the museums
regarder un film	- to watch a film
faire de la natation	- to go swimming

GRAMMAR

Directions

excusez-moi/excuse-moi	- excuse me
où est...?	- where is...?
où sont...?	- where are...?
c'est	- it is
à gauche	- left
à droite	- right
tout droit	- straight ahead
entre	- between
derrière	- behind
devant	- in front of

Time Phrases

d'habitude	- usually
normalement	- normally
souvent	- often
tous les week-ends	- every weekend
parfois	- sometimes
tous les jours	- every day
tous les soirs	- every evening
de temps en temps	- from time to time
rarement	- rarely
régulièrement	- regularly
toujours	- always
après le collège	- after school

Stretch & Challenge

sale	- dirty
bruyant	- loud
mal entretenu	- poorly maintained
barbant	- boring
charmant	- charming
vivant	- lively
pittoresque	- picturesque

	aller (to go)	faire (to do)	vouloir (to want to)	pouvoir (to be able to)
je (I)	vais	fais	veux	peux
tu (you)	vas	fais	veux	peux
il (he)/elle (she)/on (we)	va	fait	veut	peut
nous (we)	allons	faisons	voulons	pouvons
vous (you all)	allez	faites	voulez	pouvez
ils/elles	vont	font	veulent	peuvent

	masc.	fem.	pl.
to the	au	à la	aux

Countries and Continents

en Angleterre	- to England
en France	- to France
en Belgique	- to Belgium
en Espagne	- to Spain
en Suisse	- to Switzerland
en Afrique	- to Africa
en Asie	- to Asia
en Europe	- to Europe
en Tunisie	- to Tunisia
à la Réunion	- to Reunion Island
au Maroc	- to Morocco
au Canada	- to Canada
au Sénégal	- to Senegal

Accommodation

rester	- to stay
dans un hôtel	- in a hotel
dans un appartement	- in an apartment
dans une auberge de jeunesse	- in a youth hostel
chez ma famille	- at my family's house
en centre-ville	- in the city centre
au bord de la mer	- at the seaside
à la campagne	- in the countryside
aux montagnes	- in the mountains

Accommodation Opinions

ennuyeux	- boring
intéressant	- interesting
nul	- rubbish
tranquille	- quiet
propre	- clean
sale	- dirty
vif	- lively
cher	- expensive
affreux	- awful
étonnant	- amazing
amusant	- fun
moderne	- modern

Transport

en train	- by train
en car	- by coach
en voiture	- by car
en métro-	by underground
en autobus/bus	- by bus
en taxi	- by taxi
en avion	- by plane
à vélo	- by bike
aler	- to go
arriver	- to arrive

Activities on Holiday

aller au restaurant	- to go to a restaurant
visiter des musées	- to visit museums
faire du camping	- to go camping
faire de la natation	- to go swimming
faire des activités sportives	- to do sports activities
rester au lit	- to stay in bed
acheter des souvenirs	- to buy souvenirs
manger une glace	- to eat an ice cream
aller à la plage	- to go to the beach
nager dans la mer	- to swim in the sea
faire des promenades	- to go for walks
prendre le soleil	- to sunbathe

GRAMMAR

	masc.	fem.	pl.
some	du	de la	des

The Near Future

Je vais – I am going to
 tu vas – you are going to
 il va – he is going to
 elle va – he is going to
 on va – we are going to
 nous allons – were are going to
 vous allez – you (all) are going to
 lis/elles vont – they are going to

Food and Drink

boire	- to drink
je bois	- I drink
tu bois	- you drink
il/elle boit	- he/she drinks
nous buvons	- we drink
vous buvez	- you(all) drink
ils/elles boivent	- they drink
manger	- to eat
la glace	- ice cream
la viande	- meat
le café	- coffee
le fruit	- fruit
le sandwich au fromage	- cheese sandwich
les légumes	- vegetables
le pain	- bread
le poisson	- fish
le poulet	- chicken
le thé	- tea
l'eau	- water
les frites	- chips

Dream Holiday

je voudrais	- I would like
aller à Londres	- to go to London
habiter en France	- to live in France
habiter dans une grande maison	- to live in a big house
avoir une voiture très cool	- to have a cool car
faire le tour du monde	- to travel around the world
rencontrer mon acteur préféré	- to meet my favourite actor
rencontrer ma actrice préférée	- to meet my favourite actress
faire un sport extrême	- to do an extreme sport
voyager à l'étranger	- to travel abroad
être influenceur/influenceuse voyage	- to be a travel influencer

Stretch & Challenge

Je voudrais = I would like
 il voudrais = he would like
 elle voudrait = she would like
 on voudrait = we would like

Types of Houses & Town

ich wohne in	- I live in
einem Haus	- a house
einer Wohnung	- a flat
einem Hochhaus	- a high-rise building
einem Bauernhaus	- a farmhouse
einem Schloss	- a castle
einer Stadt	- a town
einer Großstadt	- a city
einer Hauptstadt	- a capital city
einem Dorf	- a village

Giving Opinions

Ich denke, dass	- I think that
Ich finde, dass	- I find that
es...ist	- it is
gut	- good
super	- super
schön	- pretty
interessant	- interesting
langweilig	- boring
historisch	- historical
gefährlich	- dangerous
sicher	- safe
klein	- small
groß	- big

Time Phrases

jeden Tag	- every day
jeden Morgen	- every morning
jeden Abend	- every evening
am Wochenende	- at the weekend
oft	- often
immer	- always
manchmal	- sometimes
selten	- rarely
ab und zu	- from time to time
regelmäßig	- regularly

GRAMMAR

wohnen = to live

ich wohne = I live

du wohnst = you live

er wohnt = he lives

sie wohnt = she lives

wir wohnen = we live

ihr wohnt = you(all) live

sie wohnen = they live

Places in town

ein Einkaufszentrum	- a shopping centre
eine Kirche	- a church
einen Bahnhof	- a train station
eine Moschee	- a mosque
einen Supermarkt	- a supermarket
einen Markt	- a market
einen Park	- a park
ein Restaurant	- a restaurant
ein Geschäft	- a shop
ein Museum	- a museum
ein Kino	- a cinema
ein Schloss	- a castle
ein Stadion	- a stadium
ein Fitness-Studio	- a gym
einen Schwimmbad	- a swimming pool

Activities in town

einkaufen gehen	- to go shopping
ins Kino gehen	- to go to the cinema
Freunde treffen	- to meet friends
spazieren gehen	- to go for a walk
Fahrrad fahren	- to ride a bike
auf ein Konzert gehen	- to go to a concert
TikToks drehen	- to film TikToks
schwimmen gehen	- to go swimming
Museen besuchen	- to visit museums
in einem Café essen	- to eat in a café

	-en	fahren	wollen	können
ich (I)	-e	fahre	will	kann
du (you)	-st	fährst	willst	können
er (he)	-t	fährt	will	kann
sie (she)	-t	fährt	will	kann
wir	-en	fahren	wollen	können
ihr	-t	fahrt	-	-
sie	-en	fahren	wollen	können

Stretch & Challenge

Fotos machen	- to take photos
im Park chillen	- to chill in the park
ein Picknick machen	- to have a picnic
in der Bibliothek lesen	- to read in the library
Kleidung kaufen	- to buy clothes

Directions

Wo ist/sind...?	- Where is/are...?
Entschuldigung	- excuse me
es ist...	- It is ...
links	- left
rechts	- right
geradeaus	- straight ahead
vor	- in front of
zwischen	- between
hinter	- behind

Word Order:

Verb-Second-Rule: after your time phrase, your verb comes next

Ich fahre Fahrrad BUT: Jeden Tag fahre ich Fahrrad

Dass: after dass (that) your verb goes last

Ich denke, dass es interessant ist

Preposition:

Prepositions change after vor, hinter and zwischen
der → dem
die → der
das → dem



Countries

Ich fahre nach	- I travel to
Spanien	- Spain
Deutschland	- Germany
Frankreich	- France
Italien	- Italy
Griechenland	- Greece
Österreich	- Austria
der Türkei	- Turkey
der USA	- USA
Japan	- Japan

Accommodation

Ich bleibe	- I stay
in einem Hotel	- in a hotel
in einem Ferienhaus	- in a holiday house
in einem Zelt	- in a tent
in einer Ferienwohnung	- in a holiday apartment
mit meiner Familie	- with my family
auf dem Land	- in the countryside
in der Stadtmitte	- in the town centre
an der Küste	- by the coast

Opinions

schmutzig	- dirty
sauber	- clean
wunderbar	- wonderful
bequem	- comfortable
unbequem	- uncomfortable
laut	- loud
schön	- beautiful
modern	- modern
alt	- old
teuer	- expensive

Numbers 1-100

eins	- 1
zwei	- 2
drei	- 3
vier	- 4
fünf	- 5
sechs	- 6
sieben	- 7
acht	- 8
neun	- 9
zehn	- 10
elf	- 11
zwölf	- 12
dreizehn	- 13
vierzehn	- 14
fünfzehn	- 15
sechzehn	- 16
siebzehn	- 17
achtzehn	- 18
neunzehn	- 19
zwanzig	- 20
dreißig	- 30
vierzig	- 40
fünfzig	- 50
sechzig	- 60
siebzg	- 70
achtzig	- 80
neunzig	- 90
ein hundert	- 100

Activities on holiday

im Meer schwimmen	- to swim in the sea
zum Strand gehen	- to go to the beach
wandern gehen	- to go hiking
im Restaurant essen	- to eat at a restaurant
ein Buch lesen	- to read a book
Boot fahren	- to go for a boat ride
im Hotel entspannen	- to relax in the hotel
einen Ausflug machen	- to go on a trip
Souvenirs kaufen	- to buy souvenirs
Fotos machen	- to take photos
Sport machen	- to do sports
ein Eis essen	- to eat ice cream

Future Holidays

ich werde	- I will
ein Museum besuchen	- to visit a museum
im Meer tauchen	- to dive in the sea
nach London fahren	- to travel to London
in einem Schloss bleiben	- to stay in a castle
Feuerwerke sehen	- to see fireworks
in die Berge fahren	- to go to the mountains
tanzen	- to dance
ins Theater gehen	- to go to the theater
ein Picknick machen	- to have a picnic

Food & Drink

ich esse	- I eat
ich trinke	- I drink
ich möchte	- I would like
eine Cola	- a cola
einen Kuchen	- a cake
Obst	- fruit
ein Eis	- an ice cream
eine Wurst	- a sausage
einen Hamburger	- a hamburger
Pommes	- chips
ein Wasser	- water
einen Kaffee	- a coffee

GRAMMAR

	werden	will
ich (I)	werde	I will
du (you)	wirst	you will
er (he)	wird	he will
sie (she)	wird	she will
wir	werden	we will
ihr	werdet	you all will
sie	werden	they will

Transport

Ich fahre	- I travel
mit dem Bus	- by bus
mit dem Auto	- by car
mit dem Schiff	- by ship
mit dem Flugzeug	- by plane
mit dem Flugzeug	- by plane
mit dem Fahrrad	- by bike
zu Fuß	- on foot

Stretch & Challenge

Use "ich möchte" (I would like to) to talk about dream holidays. The infinitive goes to the end.

Ich möchte ins Theater gehen
I would like to go to the theatre



Hay...

Hay...	- there is/are...
No hay...	- there isn't/aren't...
un castillo	- a castle
un centro comercial	- a shopping centre
una biblioteca	- a library
un cine	- a cinema
una iglesia	- a church
un campo de fútbol	- a football pitch
un mercado	- a market
un parque	- a park
un restaurante	- a restaurant
un estadio	- a stadium
una piscina	- a swimming pool
una panadería	- a bakery
una mezquita	- a mosque
unas tiendas	- some shops
unos museos	- some museums

Opinions

(yo) pienso que	- I think that
en mi opinión	- in my opinion
es	- it is
bueno	- good
barato	- cheap
bonito	- pretty
interesante	- interesting
aburrido	- boring
histórico	- historical
tranquilo	- calm
muy animado	- very lively
bastante caro	- quite expensive
demasiado pequeño	- too small
me gusta	- I like that
me encanta	- I love that
(lo) odio	- I hate that
no me gusta	- I don't like that

Activities in Town

ir a un concierto	- to go to a concert
quedar con amigos	- to go bowling
ir de compras	- to go shopping
montar en bici(cleta)	- to go bike riding
ir a pasear	- to go on a walk
tomar un café	- to have a coffee
jugar al baloncesto	- to play basketball
hacer deporte	- to do sport
visitar los jardines	- to visit the gardens
visitar un museo	- to visit the museums
ver una película	- to watch a film
nadar en la piscina	- to go swimming

Directions

perdón/perdona	- excuse me
¿Dónde está...?	- where is...?
¿Dónde están...?	- where are...?
Está(n)	- it is
a la izquierda	- left
a la derecha	- right
todo recto	- straight ahead
entre	- between
detrás de	- behind
delante de	- in front of
cerca de	- near
al lado de	- next to

Time Phrases

generalmente	- usually
normalmente	- normally
nunca	- never
todos los fines de semana	- every weekend
a veces	- sometimes
todos los días	- every day
todas las tardes	- every evening
de vez en cuando	- from time to time
raramente	- rarely
siempre	- always
después del colegio	- after school

Irregular Verbs

	ir (to go)	hacer (to do)	querer (to want to)	poder (to be able to/ can)
yo (I)	voy	hago	quiero	puedo
tú (you)	vas	haces	quieres	puedes
él (he)/ella (she)	va	hace	quiere	puede
nosotros (we)	vamos	hacemos	queremos	podemos
vosotros (you all)	vais	hacéis	queréis	podéis
ellos/ellas	van	hacen	quieren	pueden

Grammar Time Phrases

They can go at the beginning or at the end, apart from **nunca**. It has to be at the beginning. **Nunca hago deporte**- I never do sport

GRAMMAR

	masc.	fem.	Masc. pl.	fem. pl.
to the	al	a la	a los	A las



Spanish

Knowledge Organiser : Year 8 Topic 2

Holidays

Countries and Continents

a Inglaterra	- to England
a Francia	- to France
a Italia	- to Italy
a España	- to Spain
a Países Bajos	- to the Netherlands
a Grecia	- to Greece
a Escocia	- to Scotland
a Europa	- to Europe
a Gales	- to Tunisia
a las Islas Canarias	- to the Canary Isles
a China	- to China
a México	- to Mexico
a Costa Rica	- to Costa Rica
a Argentina	- to Argentina

Accommodation

quedarse	- to stay
en un hotel	- in a hotel
en un apartamento	- in an apartment
en un albergue	- in a youth hostel
con mi familia	- at my family's house
en el centro de la ciudad	- in the city centre
cerca del mar	- at the seaside
en el campo	- in the countryside
en la montaña	- in the mountain
en un camping	- in the camping
en una casa rural	- in a cottage
en un chalet	- in a detached house

Accommodation Opinions

aburrido	- boring
interesante	- interesting
pequeño	- small
tranquilo	- quiet
limpio	- clean
sucio	- dirty
animado	- lively
caro	- expensive
barato	- cheap
pésimo	- awful
increíble	- amazing
divertido	- fun
moderno	- modern

Transport

en tren	- by train
en moto	- by coach
en coche	- by car
en bici(cleta)	- by bike
en metro	- by underground
en autobús/bus	- by bus
en taxi	- by taxi
en avión	- by plane
ir	- to go
llegar	- to arrive

Activities on Holiday

ir a un restaurante	- to go to a restaurant
visitar museos	- to visit museums
hacer camping	- to go camping
hacer natación	- to go swimming
hacer actividades deportivas	- to do sports activities
quedarse en la cama	- to stay in bed
comprar recuerdos	- to buy souvenirs
ir a la playa	- to go to the beach
nadar en el mar	- to swim in the sea
salir a caminar	- to go for walks
tomar el sol	- to sunbathe
asistir a un concierto	- to attend a concert

Food and Drink

beber	- to drink
(yo) bebo	- I drink
comer	- to eat
(yo) como	- I eat
la carne	- meat
el pollo	- chicken
la fruta	- fruit
un bocadillo de queso y jamón	- ham & cheese sandwich
las verduras	- vegetables
el pan	- bread
el pescado	- fish
los caramelos	- sweets
el arroz con leche	- rice pudding
la tortilla española	- Spanish omelette
la paella	- Paella
el té con leche	- tea with milk
el agua	- water
el café	- coffee

Dream Holiday

me gustaría	- I would like
ir a Madrid	- to go to Madrid
vivir en España	- to live in Spain
vivir en una casa grande	- to live in a big house
tener un coche muy guay	- to have a cool car
dar la vuelta al mundo	- to travel around the world
conocer a mi actor favorito	- to meet my favourite actor
conocer a mi actriz favorita	- to meet my favourite actress
hacer un deporte extremo	- to do an extreme sport
viajar al extranjero	- to travel abroad
ser influencer de viajes	- to be a travel influencer

Stretch & Challenge

me encanta	- I love
me gusta mucho	- I really like
me gusta bastante	- I quite like
odio	- I hate
no me gusta nada	- I don't like at all

GRAMMAR

Reflexive verbs

Quedarse- to stay
Me quedo – I stay

Adjectival agreement

La paella es buena
 El pan es bueno
 Los caramelos son malos

Music: Y8 Term 1



Musical Patterns

Exploring Repeated Musical Patterns



Key Words

OSTINATO – A repeated musical pattern. Used in ‘classical’, ‘film’ and some ‘World’ music.

RIFF – A repeated musical pattern. Used in the introduction and instrumental breaks in a song or piece of music.

LOOP- A repeated musical pattern in music technology

GROUND BASS- a pattern played in the bass, which is constantly repeated as the other parts of the music vary. Popular in the Baroque period.

MELODY – The main “tune” of a piece of music.

TEXTURE- how sound is layered:

POLYPHONIC many layers playing at once 

HOMOPHONIC layers moving at the same time

(playing different pitches) .

PITCH – The highness or lowness of musical note.

TEMPO- the speed of music (largo-slow, andante-walking pace, allegro-fast)

DYNAMICS- the volume of music (piano- quiet, forte-loud, crescendo-gradually getting louder)

Famous Hooks, Riffs and Ostinatos

Ostinato from ‘Mission Impossible’- Lalo Schifrin



Ground bass from ‘Canon in D’- Johann Pachelbel



Chords

Triad- a three note chord

How to make a chord? Use the ‘Play one, miss one’ pattern

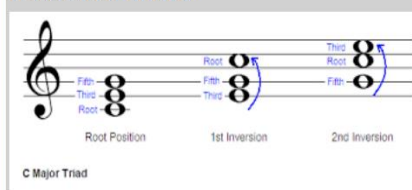
Block chords- notes are played at the same time:



Broken Chords- notes are played one at a time:



Chord inversions- the rearrangement of the top-to-bottom notes in a chord



Music Theory

TREBLE CLEF – shows that notes are to be performed at a higher pitch. .



BASS CLEF – shows that notes are to be performed at a lower pitch.



The Baroque Period (1600-1750)

Great composers: JS Bach, Handel, Vivaldi, Pachelbel

Instruments: Harpsichord



Musical features:

ornamentation (decoration), terraced dynamics, ground bass, polyphonic texture.

The Classical Period (1750-1820)

Great composers: Mozart, Haydn, Beethoven

Instruments: development of the pianoforte (much more like a modern day piano than the harpsichord) and a larger orchestra

Musical features: larger orchestra, clear balanced phrases, more

PE: Y8 Term 1

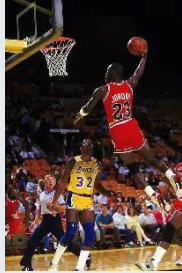


Methods of Fitness Training

Training Method	Definition	Advantages	Disadvantages	Sports
Continuous Training	Is sub-maximal aerobic exercise that has no breaks or rest. It lasts for a minimum of 20 minutes and can improve aerobic endurance.	No equipment or facilities needed (cheap). Can be done on your own.	Boring. No change of pace. Can cause impact injuries.	Marathon running. Cycling. Swimming. 
Fartlek Training	Form of continuous training which varies in pace and terrain. It is used in aerobic endurance and can improve anaerobic fitness at higher intensities.	No equipment or facilities needed (cheap). More interesting. Can be done on your own.	High intensity can lead to injury if not avoided. A safe route needs to be planned out.	Football Rugby Netball 
Circuit Training	Consists stations organized in a circuit usually to work on different fitness-based aerobic or anaerobic exercises at each station. Intensity is measured by time at each station; the number of circuits completed; the rest time between stations; the number of repetitions performed at each station.	Variety of stations prevents boredom. Can be skill based as well as fitness-based exercises adapted for any sport.	Equipment can be costly if not available already set up early to get maximum use out of it	Can be adopted to suit all sports 



Methods of Fitness Training

Training Method	Definition	Advantages	Disadvantages	Sports
Interval Training	High-intensity exercise followed by periods of rest usually anaerobic exercise but can also improve speed but can also work aerobically improves speed but an advantage is that it allows recovery during session	Can be used to improve health (aerobic) and fitness (anaerobic) no equipment needed	Repetitive boring need planning keep track time intervals	Usually for speed an adopted other sports 
Plyometric Training	Maximal intensity involving jumping bounding exercises eccentric contraction immediately followed concentric contraction involves powerful explosive movements improves power speed strength	Develops power quickly no equipment	Cause injury	Basketball Long jump Hurdles 
Weight Training	Involves lifting weights to improve muscular strength and endurance.	Can target specific muscle groups. Improves overall strength.	Requires equipment. Risk of injury if not done correctly.	Bodybuilding, Weightlifting, Powerlifting. 
Static Stretching	Involves holding a stretch for a period of time to improve flexibility.	Improves flexibility. Can be done anywhere without equipment.	Can be boring. Risk of overstretching and injury.	Gymnastics, Dance, Yoga. 

WHAT IS BADMINTON

General – Badminton is a **net and wall** game in which players use a **racquet** to hit a **shuttlecock** over a net. Players aim to land the shuttlecock in their opponent's court or force an error. It is played in **singles** or **doubles**.

Scoring – A point is awarded after every rally regardless of who served (rally point system). Games are played to **21 points** and matches are the best of **three sets**.

Objective – To outwit your opponent using a combination of technical skills, strategy, and movement. Players aim to force errors or place the shuttlecock where the opponent cannot return it.

Rules and Regulations

1. A game can take place with either two (singles) or four (doubles) players
2. The aim is to score points by landing the shuttle within the parameters of the opponent's side of the court
3. A point is scored every rally, regardless of who served
4. Games are played to 21 points; Matches are played best of three sets
5. If the shuttle lands on the line, it is deemed as in.

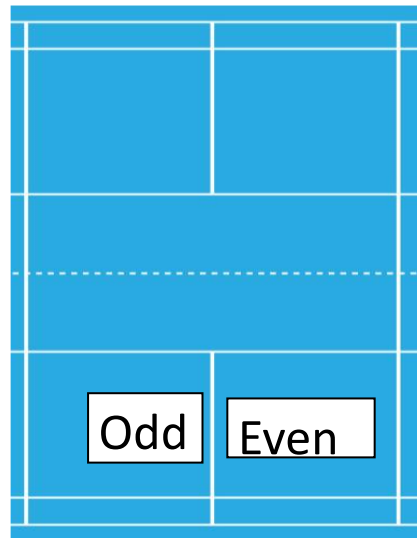
Court Marking and Serving

At the beginning of the game (0-0) and when the servers score is even, they serve from the right hand service box

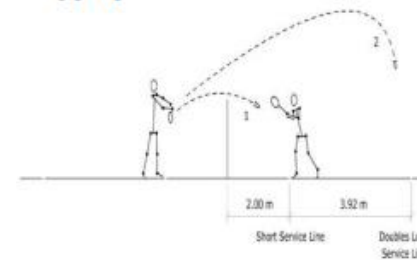
- If servers score is odd, they serve from the left service box
- In doubles, the same player continues to serve until the point is lost. When service is won back, the other player serves

Key Terms/Vocabulary

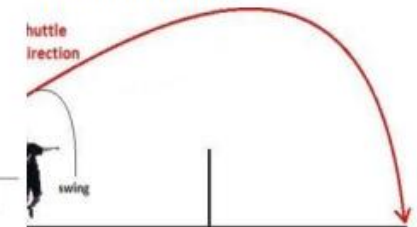
- Ready position
- Forehand and backhand serve
- Overhead clear
- Drop shot
- Net shot
- Underarm clear
- Court markings
- Outwitting opponents
- Shuttlecock
- Tactics
- Consistency
- Agility
- Footwork
- Scoring system
- Rotation
- Recovery



Serve



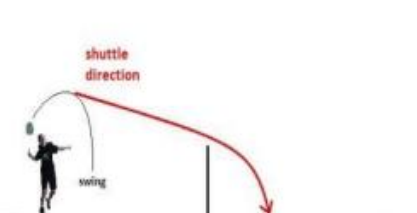
Overhead Clear



Underarm Clear



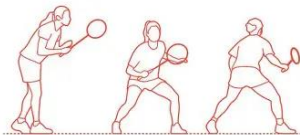
Drop Shot





PE Knowledge Organiser: Y8 - Badminton Techniques

1. Introduction & Ready Position



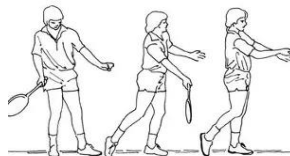
Key Teaching Points (KTP's)

- Shake hands grip (forehand)-
- Backhand grip (thumb grip)-
- Ready position: feet shoulder-width, knees bent, racket in front

When would I need to be able to use this skill?

To prepare for any shot and move quickly across the court- To return to a neutral position after each shot

2. Forehand Serve



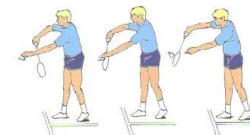
Key Teaching Points (KTP's)

- Forehand grip-
- Racket below waist-
- Non-racket foot forward-
- Contact shuttle diagonally to service box

When would I need to be able to use this skill?

To start a point legally in singles and doubles- To serve deep and push opponent to the backcourt

3. Backhand serve



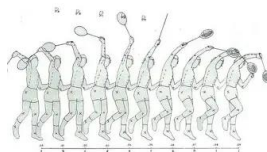
Key Teaching Points (KTP's)

- Thumb on flat side of grip
- Shuttle held near racket face
- Short, controlled flick below waist
- Contact in front of body

When would I need to be able to use this skill?

To serve short in singles or doubles
To vary serve placement and catch opponent off guard

4. Overhead Clear



Key Teaching Points (KTP's)

- Forehand grip
- Sideways stance, non-racket foot forward
- Contact shuttle high and in front
- Full follow-through above head

When would I need to be able to use this skill?

To move opponent to the back of their court-
When defending and needing time to recover.

5. Drop Shot



Key Teaching Points (KTP's)

- Similar setup to overhead clear
- Minimal follow-through
- Light push/tap- Shuttle drops just over net

When would I need to be able to use this skill?

Minimal follow-through- Light push/tap
Shuttle drops just over net
To draw opponent to the front of the court
To change the pace and exploit space in front of the court

6. Net Shot



Key Teaching Points (KTP's)

- Light grip
- Contact shuttle in front of body
- Soft push or tap
- Keep racket up and ready

When would I need to be able to use this skill?

To win points near the net
When opponent has played a short shot and left the front court open

7. Underarm Clear

Key Teaching Points (KTP's)

- - Forehand grip
- Racket starts low, swing low to high
- Step forward with racket foot
- Use wrist for height and depth



8. Game Play

Key Teaching Points (KTP's)

- Serve correctly based on score
- (odd = left, even = right)
- Apply correct court markings-



Scoring system

A shot into your opponent's basket can be worth one, two or three points:

- A successful free throw is worth one point. The free throw is taken from behind the free throw line with five other players (3 defenders and 2 attackers) lining up along the side of the free throw line in spaces marked on the floor
- A basket scored from within the three-point line (the large semi-circle on the floor) is worth two points
- A basket scored from behind the three-point line is worth three points. For the shot to count the shooter must have both feet behind the three-point line at the moment of release

Timing regulations

The Game: A game of basketball lasts 40 minutes split into four 10-minute quarters with 2 minutes between quarters. The clock is stopped every time the referee blows the whistle, so in real terms a game will last longer.

3 Second Rule: No attacking player must remain for more than 3 seconds inside the opponents restricted area (Key) when their team is in possession of the ball. To do so is a violation.

5 Second rule: A closely guarded player must pass, shoot or dribble the ball within 5 seconds, else a violation occurs and the opposition obtain possession of the ball at the nearest point on the sideline

8 Second rule: Once a player gains control of the ball in their backcourt their team must within 8 seconds transfer the ball into the frontcourt

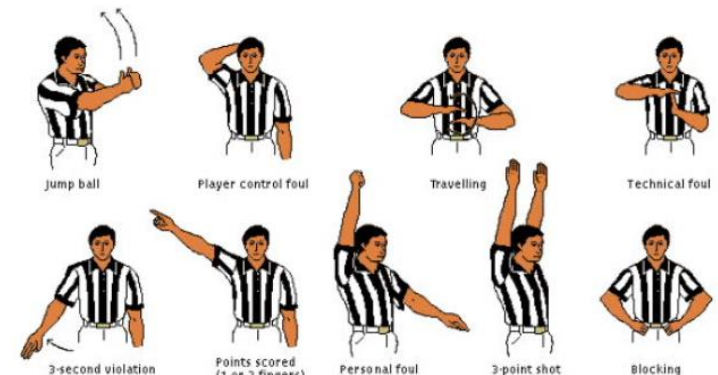
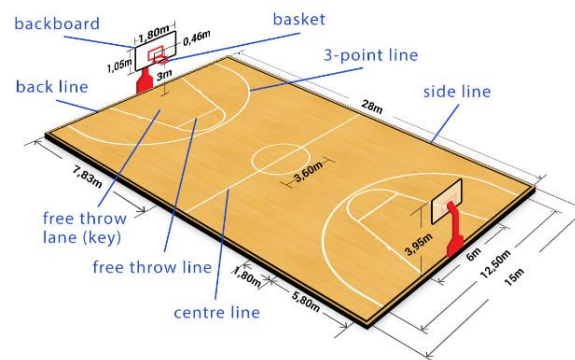
24 Second Rule: Whenever a team gains control of the ball they must attempt for a basket within 24 seconds

Basic Rules

- Basketball is a team passing game played with the hands.
- Each team tries to throw the ball into a target that is above head height.
- It is played with three main rules concerned with:-
 - Contact
 - Dribbling
 - Footwork while holding the ball

Key Terms/Vocabulary

- Ball control
- Catching
- Set/Form shot
- Bank shot
- Lay up
- Passing
- Dribbling
- Offense
- Defence
- Grip
- Handling
- 'BEEF'
- Angles
- Rebound
- Chest
- Bounce
- Double dribble
- Attacking
- Stance
- Triple threat
- Man to man
- Jump shot
- Pass and cut
- Violation
- Javelin
- Pivot
- Crossover
- Hesitation
- Spin



PE Knowledge Organiser: Y8 – Basketball Techniques

1. Shooting: Recap Lay-up and introduction to weak hand lay-ups



Key Teaching Points (KTP's)

- Run / Jump up and towards the target and reach up
- Player takes ball in 2 hands with feet on floor
- Jump up towards the basket from left foot (or alternatively right foot)
- As jump made ball taken up to position above head and moved into right hand (left)
- Release ball when shooting arm and hand at full stretch

When would I need to be able to use this skill?

Remember, a Lay-up shot is used near the basket while a player is on the move. Lay-ups should be practiced off both feet to allow you to approach the basket from either side to maximise the chances of scoring. Top tip: Use the backboard to your advantage.

2. Develop Passing: Javelin and Overhead



Key Teaching Points (KTP's)

- One hand pass starting with bent arm and turning the body
- As pass is made the weight is shifted forward
- Ball released with quick snap of elbow, wrist and fingers
- Keep two hands on the ball as long as possible

When would I need to be able to use this skill?

A javelin pass is used over long distances. Alternatively, the Overhead pass is made with the ball held above head height. This pass is useful for tall players or for all players passing over smaller or close marking opponents.



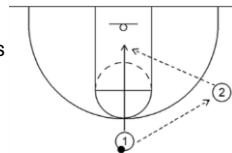
5. Offensive skills (attacking): Outwitting an opponent - Give and Go

Key Teaching Points (KTP's)

- Player passes to team-mate (chest/bounce/overhead)
- Player makes a step to move away from the direction of the pass
- Player then changes direction and cuts to basket
- Lead hand up and catch ball with two hands

When would I need to be able to use this skill?

A Give and Go or otherwise know as a 'pass and cut' is an attacking player passes the ball to a team-mate and cuts towards basket for a return pass. By performing this Team play it helps to get a player free by two team-mates working together.



3. Develop Pivoting/Stopping Triple Threat



Key Teaching Points (KTP's)

- Balanced stance with Weight on ball of pivot foot
- Chest leads (front turn) or Back leads on (reverse turn)
- Pivot on ball of foot
- Step forwards (front turn) or Drop other foot back (reverse turn)

When would I need to be able to use this skill?

When in possession of the ball, the rules allow you to take as many steps as you need in any direction with one foot while *pivoting* (turning) on your other foot. The foot that you pivot with, or turn on, is called the *pivot foot*. A pivot is used to either improve position without violating the rules or protect the ball from defensive player.

6. Defensive skills: Man to man marking

Key Teaching Points (KTP's)

- Desire to defend well is key to success
- Stay in a balanced stance (head over waist, your back is straight, chest is out)
- Force player sideline or baseline (away from middle of court)
- Keep an arm's length distance at all times
- Keep eyes on the opponent's chest (easy for offensive player to fake with their head, eyes, or body whereas most difficult to fake with their chest)

When would I need to be able to use this skill?

One on one defence – a style of defence where each player is assigned to guard a specific opponent regardless of where they go in the attack.

4. Develop Dribbling: Crossover, hesitation and spin techniques



Key Teaching Points (KTP's)

- Head up, see basket
- Cross ball in front at backwards angle (close to body)
- Switch hands
- Control dribble at knee level
- Body and non-dribbling hand protect ball

When would I need to be able to use this skill?

The crossover dribble is important in the open court on a fast break, to get open on your drive to the basket, and create an opening for your shot. Your success is based on how sharply you change your dribble from one direction to another.

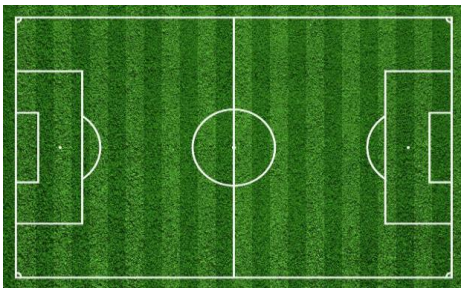
7. Additional shooting: Jump shot

Key Teaching Points (KTP's)

- Place feet shoulder width apart, toes pointing straight head, knees bent
- Hold ball chest height.
- Extend the legs/ankles by jumping straight up
- While in flight, extend back, shoulders and elbow
- Flex the wrist and fingers forwards and release the ball (Highest point)

When would I need to be able to use this skill?

A jump shot is similar to shooting a one-hand set shot except for two basic adjustments. In a jump shot you align the ball higher and shoot after jumping. The purpose of the jump shot is to rise above the defensive players reach when shooting.



Football Basics

Football (Soccer) is one of the oldest sports in the world. The pinnacle of the international game comes in the form the Football World Cup. There are also tournament such as the Euro Championships, Copa America and the African Cup of Nations. Domestically the strongest leagues come from England (English Premier League), Spain (La Liga), Italy (Serie A) and Germany (Bundesliga).

- Each team consists of 11 players. These are made up of one goalkeeper and ten outfield players (defenders, midfielders and forwards).
- On each pitch you will have a 6 yard box next to the goal mouth, an 18 yard box surrounding the 6 yard box and a centre circle. Each half of the pitch must be a mirror image of the other in terms of dimensions.
- Essentially the equipment that is needed for a match is pitch and a football.
- Players can be found wearing studded football boots, shin pads and matching strips. The goalkeepers will additionally wear padded gloves as they are the only players allowed to handle the ball.

The Offside Rule in Football

- The **offside rule in football** can be explained as follows:
Simply put, the offside rule mandates that during a move, an attacking player, when in the opposition half, must have at least two opposition players, including the goalkeeper, between him and the opposition goal when a pass is being played to him.

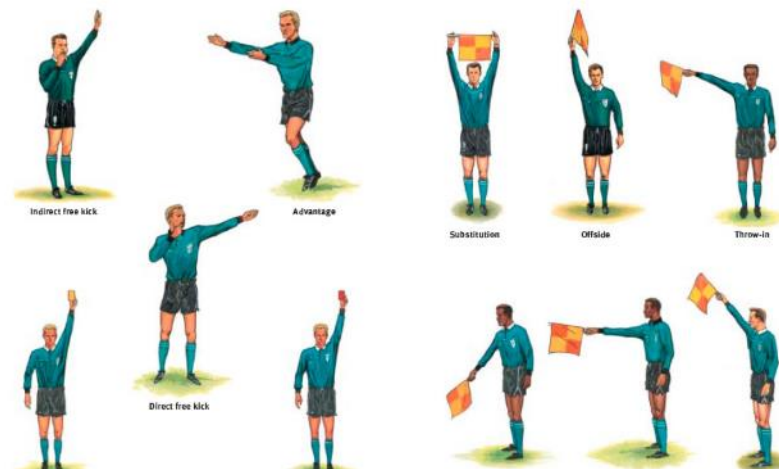
Winning the Game

To win you have to score more goals than that of your opponents. If the scores are level after 90 minutes then the game will end as a draw apart from in cup games where the game can go to extra time and even a penalty shootout to decide the winner.

To score the ball must go into your opponent's goal. The whole ball needs to be over the line for it to be a goal. A goal can be scored with any part of the body apart from the hand or arm up to the shoulder.

Key Terms/Vocabulary

- | | | |
|-------------------------|-------------------|----------------------|
| • Ball control | • Short/push pass | • Chip |
| • Passing | • Instep | • Space |
| • Dribbling | • Hook | • Volley/half volley |
| • Running with the ball | • Laces | • Distribution |
| • Turning | • Block | • Foul |
| • Shooting | • Body position | • Direct/Indirect |
| • Tackling | • Aerial control | • Goal-kick |
| • Goalkeeping | • Long pass | • Offside |
| • Attacking | • Driven | • Opposition |
| • Defending | • Lofted | • Awareness |
| • Touch | | • Penalty |



PE Knowledge Organiser: Y8 – Football Techniques

1. Ball control and familiarity: Aerial control



Key Teaching Points (KTP's)

- Players must judge the flight of the ball
- Players need to read the depth and speed of an incoming ball
- Move into the right position and use the ideal part of the body to take control

When would I need to be able to use this skill?

Different techniques, such as heading, chest control, or volleying, can be used to control the ball in the air. Aerial control is crucial for winning aerial duels, receiving long passes or redirecting the ball to teammates. Tip: Practice a variety of techniques to master this skill!

5. Shooting: Moving ball, half volley and volley



Key Teaching Points (KTP's)

- Watch the flight of the ball
- Position themselves accordingly
- Adjust their body orientation
- Choose the ideal time to make a connection with the ball

When would I need to be able to use this skill?

A volley is when a player strikes the ball first-time as it's dropping out of the air. If it bounces before the player connects with it, or they hit on the bounce, it's classed as a half volley. Volleys are a highly technical finish and require lots of technique and timing.

2. Range of Passing: Long pass – lofted/dipped and chip pass



Key Teaching Points (KTP's)

- Approach
- Body shape
- Contact. Part of ball and foot
- Weight, accuracy and follow through

When would I need to be able to use this skill?

Passing is the ability to pass the ball to another teammate. It is important that you are able to pass accurately over short and long distances. Tip: Remember the ball travels far quicker by passing than attempting to dribble/run with the ball!

6. Tackling: Defending 1v1, 2v2, 1v2



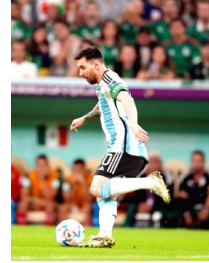
Key Teaching Points (KTP's)

- Close down space (1-2 steps away from attacker)
- Jockey, be patient and don't dive in
- Force attacker onto their weak foot
- Be on your toes
- Keep eye on the ball
- Win the ball with confidence when the time is right

When would I need to be able to use this skill?

Defending is not about being big, fast and strong. The best defenders are the smartest and don't just rely on their athleticism to win the ball but their timing and positioning.

3. Running with the ball: How and when



Key Teaching Points (KTP's)

- Using a good first touch to get the ball out from under your feet
- Head up
- Bigger touches and longer strides (*than dribbling*)
- Using the laces (front of the foot) to keep the ball in front

When would I need to be able to use this skill?

Running with the ball is when a player travels through (or into) space at speed, with the ball at their feet. It is a great way of gaining territory or exploiting space opened up by a disorganised defence. It's an effective way of changing the possibilities of the attack. Every situation is unique and down to the quickness of thought from a player!

4. Turning with the ball: Into space, when and when not to turn



Key Teaching Points (KTP's)

- Scanning
- Timing
- Movement
- Positioning
- Deception
- Technique (Type of turn)

When would I need to be able to use this skill?

Players need to work on all six KTP's (above) to be efficient at turning. Tip: Develop as many different turns as possible, practicing against opposition whenever you can!

7. Goalkeeping: Distribution and Supporting defence



Teaching Points (KTP's)

- Ball handling
- Decision making
- Release the ball quickly (if you can)
- Spatial awareness
- Positioning and movement

When would I need to be able to use this skill?

Distribution is the term used to cover all methods with which a goalkeeper can deliver the ball to one of their teammates. These include a GK being able to roll, throw, side-volley, half-volley, drive, chip, pass, and often with both feet.

PE Knowledge Organiser: Y8 – Gymnastics Overview



Tips for building your sequence

- Consider your sequence to be a sentence.
- You need a clear start and end position.
- Include all the actions you have learnt from Y7 and 8
- Use locomotion to travel to and from different equipment.
- Communicate with your partner
- Enhance each others skills
- Plan transitions for entry and exit into different actions
- Don't forget your shape, can you refine it?
- Which dynamics do you use?
- When you have planned it REHEARSE REHEARSE REHEARSE



Performance and Assessment

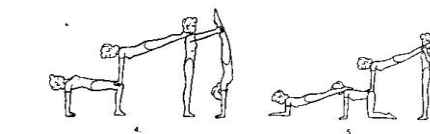
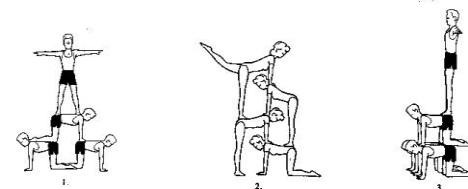
As an audience you must be respectful of others, performing can be nerve racking, so let's celebrate everyone's success.

- Don't talk or giggle - you've worked too hard to ruin it!
- If you do make a small error, pause and pick it back up
- Hold your head up – be proud of your work!
- Point those toes and finish those shapes

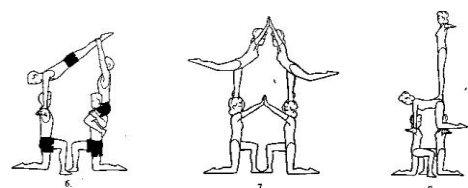
Safety in Gymnastics

Listen to instructions and ensure you that you progress through the KTPs rather than attempting the skill from the top. Make sure equipment is set up correctly and ask a teacher to check any concerns you have. Make sure you are working in a space. Always make a plan with your partner about what you aim to do and communicate to each other throughout. Do not just move away and leave them without support, If you need to back out, talk and do that controlled together.

Pyramids of Four
Beginner



Intermediate



Key Terms/Vocabulary

- | | | | |
|-------------|------------|--------------|-----------------|
| • Abduction | • Base | • Tension | • Vault |
| • Turn out | • Landing | • Aesthetics | • Compliment |
| • Dynamics | • Take off | • Symmetric | • Contrast |
| • Flexion | • Assisted | • Asymmetric | • Flight |
| • Levels | • Obstacle | • Mirror | • Trust |
| | • Counter | • Match | • Communication |

Partner balances



A partner balance usually involves two gymnasts working together, where one acts as the base, providing support and stability, and bears the weight of the other partner, known as the flyer.



PE Knowledge Organiser: Y8 – Gymnastics Techniques

Shape: Match, mirror, compliment and contrast, symmetric and asymmetric

Key Teaching Points (KTP's)

- Matching shapes are performed in unison (same action at the same time)
- Mirroring – mirror image of each other (Developed – mirror down the middle and performed side by side)
- Compliment – similar actions might be on different levels
- Contrast – opposite in levels, size, dynamics

When would I need to be able to use this skill?

When holding a balance or inversion or rolling shape can make the skill more aesthetically pleasing. Shape can make a routine look more refined. These make partner work more interesting.

Balance: Counter balance and counter tension



Key Teaching Points (KTP's)

- Counter balance – POC may be further apart but the COG is leaning towards each other. If one was removed the other would fall. More equal spread of weight.
- Counter tension – POC may be closer together and partners COG pull away from each other. Creates tension in the hold.
- COMMUNICATE the action and plan together before starting and throughout

When would I need to be able to use this skill?

With a partner in a sequence, demonstrating strength and teamwork as well as balance

Partner weight bearing: Partner obstacle, assisted balance and lift

Key Teaching Points (KTP's) - Lift – flying angel

- Base lying on back, feet raised and knees bent
- Feet at 10 and 2 (turned out) on partners hips
- Hands together – palms facing
- Take partners weight and hold
- Lower them safely to their feet.



When would I need to be able to use this skill?

This is one of many lifts you can try, if the flying angels is not a comfortable option for you then perhaps try 'bunk beds' or if you want a challenge a small group pyramid. Obstacles can be a leapfrog and don't forget you can create your own!

Intro to flight: Landing and take off

Key Teaching Points (KTP's)

Landing

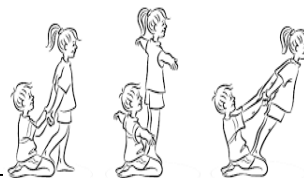
- The feet should be shoulder width apart at 10 to 2. In order to form a large support base.
- The knees should be flexed in the direction of the toes.
- The back should be flat and upright, head in neutral position.
- Arms should be brought down to absorb the force of the landing.

Take off:

- Three-step run up. The last being a hurdle step.
- Double footed take off, feet in front of the body on the springboard.
- legs slightly bent.
- Trunk vertical.
- Arms swung backwards
- arms event thrown forwards with a dynamic straightening of the legs.



Sequence: Partner work assessment



Key Teaching Points (KTP's)

Routine should include:

- Rolls
- Jumps
- Inversion
- CB CT Balance
- Weight bearing (obstacle, assisted or full lift)
- Locomotion
- Shapes that match mirror, compliment and contrast

For each action you should consider shape and dynamics (how it is performed).

Low level vaults: On and off equipment

Squat on and off

- 2 footed take off (KTPs of take off)
- 2 hands down onto the apparatus
- Tuck position with knees flexed land 2 feet onto the apparatus.
- Extend the legs and remove hands to jump upwards and forwards off.
- Landing KTPs

VAULT: SQUAT ON



You will also experiment with the gate fault and straddle vault on lower level equipment. This is the beginning of flight

What is Rugby?

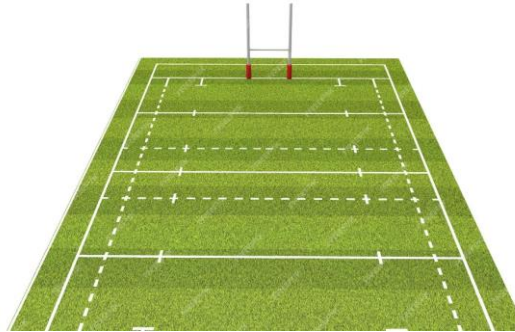
General – Rugby is a team sport. This means that you will work with other players on your team to attack and defend.

Scoring – To score in Rugby you can score in multiple ways, they are as follows: By placing the ball securely over the try line, by conversion (kicking the ball between the posts after a try has been scored or from a penalty), and by drop-goal.

Skills and Techniques – Rugby is a sport which requires a lot of body control and strength. Tackling is one of if not the most important skill when playing Rugby. You must be able to tackle safely and also effectively so that you stop your opponents from advancing up the pitch and scoring. Passing the ball whilst running at speed is also a very important skill to have when attacking.

Key Terms/Vocabulary

- Agile
- Anticipate
- Coordinate
- Defend
- Invasion
- Formation
- Intensity
- Opposition
- React
- Resilience
- Strategy
- Support
- Tactics
- Technique
- Transition
- Dummy half
- Forward pass
- Play-the-ball
- Tackle count
- Touchline
- Tryline
- Dummy runner
- Knock-on
- Line break
- Offload



Referee signals



1. Penalty Kick
Shoulders parallel with touchline. Arm angled up, pointing towards non-offending team.



2. Free Kick
Shoulders parallel with touchline. Arm bent square at elbow, upper arm pointing toward non-offending team.



3. Try and Penalty Try
Referee's back to dead ball line. Arm raised vertically.



4. Advantage
Arm outstretched, waist high, towards non-offending team, for a period of approximate five seconds.



5. Scrum awarded
Shoulders parallel with touchline. Arm horizontal pointing towards team to throw in the ball.



6. Forming a scrum
Elbows bent, hands above head, fingers touching.



7. Throw forward / forward pass
Hands gesture as if passing an imaginary ball forward.



8. Knock on
Arm outstretched with open hand above head, and moves backwards and forwards.

Rules and Regulations

1. Depending on which version (League or Union) you play depends on which rules are applied.
2. Points are awarded to teams via a try, conversation or drop goal.
3. Foul play happens in multiple ways, such as: when a player obstructs an opponent, when a player kicks, tramples or trips an opponent, when a player tackles too early, too late or above the shoulders, tackling a player in the air or general unfair or dangerous behaviour.
4. An offside happens when a defending player is too far ahead of the defensive line (not back 10 yards). The defensive line is an imaginary line which runs across the pitch when the ball is being 'played' via ruck or play of the ball (often after a tackle has just happened).
5. If a player loses control of the ball and the ball goes forward (towards the opponents try line) this is called a knock on. A knock on means your team loses the ball and must give it to the opposition who will restart where the player knocked on.
6. Passes must go backwards (behind you / towards your try line). If a pass goes forward a penalty will be awarded to the opposition where the pass took place. Penalties can be used to kick at goal (conversion), kick for touch (advance up the field) or restart play via scrum or play of the ball.
7. A try is scored by placing the ball on the ground securely over the try line.

1. Ball familiarisation: Grip and handling skills



Key Teaching Points (KTP's)

- Spread fingers wide in a "W" shape
- Fingers on seams, thumbs at the side
- Ball ideally in the fingertips, not the palm
- Ball carried with two hands before contact

When would I need to be able to use this skill?

Rugby league players need a secure grip on the ball to maintain control while running, passing, and scoring—especially in wet or muddy conditions. Strong grip and handling reduce errors like fumbles and allow accurate passing under pressure.

2. Offload during a tackle



Key Teaching Points (KTP's)

- Strong grip on the ball
- Keep the ball close to the chest in contact
- Only offload when it's safe and effective
- Maintain balance and stay on feet during contact

When would I need to be able to use this skill?

Offloading during contact allows players to keep the play alive and support attacking moves without needing to stop or reset. It's a powerful skill for breaking through tight defences

3. Upright Tackling



Key Teaching Points (KTP's)

- Place lead foot between attacker's legs
- Wrap arms around the attacker (ball-side and opposite side)
- Stay upright to restrict the opponent's passing options

When would I need to be able to use this skill?

Upright tackles stop the ball carrier while limiting their ability to pass. This helps slow down play, organise the defensive line, and create opportunities to force a turnover.

4. Playing the ball



Key Teaching Points (KTP's)

- Snap knees in, roll back smoothly with foot
- Return to feet quickly
- Dummy half collects and distributes ball

When would I need to be able to use this skill?

After being tackled, players must get up and "play the ball" to continue the game. This skill restarts attack quickly and gives the team a chance to advance.

5. Protective Falling & Side Tackle



Key Teaching Points (KTP's)

- Shorten steps on approach
- Hands up, target thighs, head to the side
- Chin to chest when falling, round shoulders
- Hold ball tight to chest when hitting ground

When would I need to be able to use this skill?

Falling correctly reduces injury risk and keeps possession. Side tackles are key to stopping an opponent's progress and creating chances to regain control of the ball.

6. Kicking: Grubber and Punt



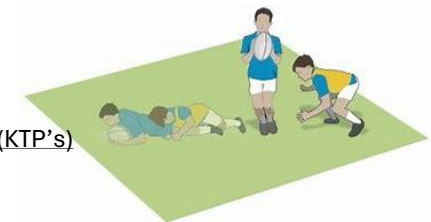
Key Teaching Points (KTP's)

- KTP Grubber: Lean forward, toe pointed down
- Kick top half of the ball into the ground
- Punt: Drop ball onto foot
- Contact lower half of ball
- Follow through toward target

When would I need to be able to use this skill?

Kicks are used to gain territory, restart play, or attempt to score. Choosing the correct type of kick helps create scoring chances or push the opponent back.

7. Side Tackle



Key Teaching Points (KTP's)

- Shorten steps,
- target thigh,
- head behind,
- arms around thigh area squeeze player toward you.
- Finish on top

When would I need to be able to use this skill?

In rugby league, players need to be able to tackle to stop the opposing team from advancing down the field and scoring. Effective tackling helps regain control of the game, forces turnovers, and creates opportunities for their own team to go on the attack.

Religious Studies: Y8 Term 1





RELIGIOUS STUDIES Knowledge Organiser: Y8 Term 1 BUDDHISM

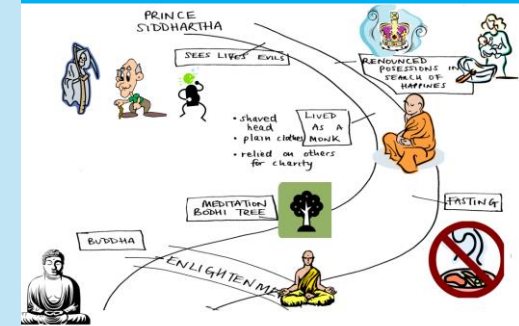
Key vocab	Definition
The buddha	One who is enlightened
Nirvana	State of peace and happiness and the end of suffering
Enlightenment	To realise the truth about the world
Meditate	Thinking deeply about life in order to reach enlightenment
Dukkha	Suffering
Ascetic	Someone who gives up worldly possessions for religious reasons
Eightfold Path	Each spoke symbolizing one of the eight practices/ teachings that the Buddha taught.
Karma	To the actions you take and the intentions behind those actions. Good actions lead to positive karma, and bad actions lead to negative karma.
Cycle of Samsara	The endless cycle of birth, death, and rebirth
5 Moral Precepts	5 Teachings/ guidelines that Buddhists must follow
Sangha	Community of Buddhist Monks and Nuns
Alms	Giving food and necessary things to Buddhists
Lay Buddhists	Ordinary people who believe in the teachings of the Buddha

Prince to Buddha

As a young man, Siddhartha became curious about the world beyond the palace. On separate trips outside, he encountered what are now known as the Four Sights:

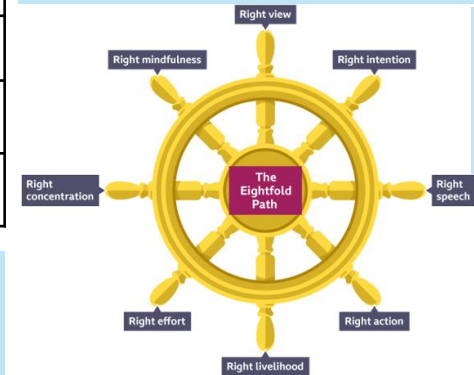
- old man
- sick person
- dead man
- holy man

At the age of 29, he left his royal life, leaving behind his wife and son, and set out on a spiritual quest.



Number	Noble Truth
1 st	Life is constantly changing, and dukkha exists
2 nd	Dukkha is caused by craving
3 rd	The only way to stop dukkha is to stop craving
4 th	The way to stop craving is to follow the Eightfold Path

The Four Noble Truths are the main teachings of Buddhism. They explain why people suffer and how to stop suffering.



Dharma wheel
Eight teachings
Buddhists must follow



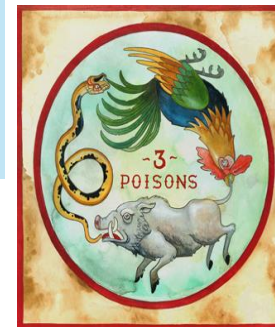
The three main causes of suffering are:

- Greed (represented by a pig)
- Hatred (represented by a snake)
- Ignorance (represented by a rooster)

By removing the Three Poisons, a person can follow the path to stop suffering and find peace.

5 moral precepts

1. To abstain from taking life
2. To abstain from taking what is not freely given (don't steal)
3. To abstain from misuse of the senses or sexual misconduct (don't act badly in romantic relationships)
4. To abstain from wrong speech (don't lie)
5. To abstain from intoxicants that cloud the mind (don't take drugs or alcohol)



Karuna Trust

The Karuna Trust is a UK-based Buddhist-inspired charity founded in 1980 by members of the Triratna Buddhist Order. Rooted in the Buddhist value of compassion



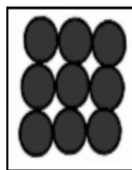
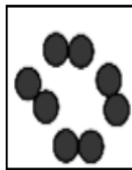
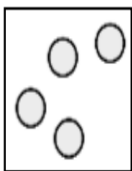
Science: Y8 Term 1



SCIENCE Y8 MATTER KNOWLEDGE ORGANISER

1. Elements

- Substances with only one type of atom are called elements.
- The atoms may be **separate** or **molecules**.



4. Formulae

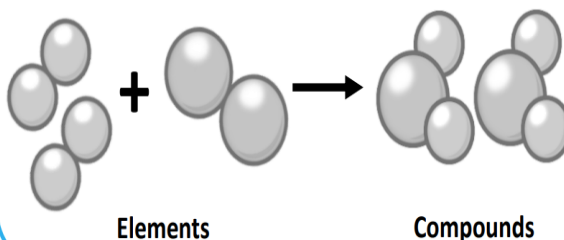
- A **formula** is a short-hand version of a compound using the **symbols** of the elements.
- If there is more than 1 atom of an element in a compound there will be a subscript number on its right-hand side.
- A formula tells you **which elements** are present and **how many atoms** of each.
- e.g. $H_2O = 2 \text{ atoms of hydrogen and } 1 \text{ atom of oxygen.}$

5. Metals

- Metals** are on the **left-hand side** and **middle** of the Periodic table; **non-metals** are on the **right**.
- Metals are **shiny**, **malleable**, **ductile**, **sonorous** and good **conductors** of heat and electricity.
- Non-metals have the opposite properties.

2. Compounds

- Atoms of different elements can **chemically join together** to form a very large number of compounds.
- Water and sodium chloride are examples of compounds, they are **NOT** found in the periodic table.



6. Reactivity of Metals

- Elements in the same **group** have similar chemical properties; they react **similarly** with different substances.
- Some elements are **more** reactive than others and some elements **do not** appear to react at all.
- Observations of reactions allows scientists to put the elements in a **reactivity series**.

potassium **most reactive**
sodium
calcium
magnesium
aluminium
carbon
zinc
iron
tin
lead
hydrogen
copper
silver
gold
platinum **least reactive**

3. The Periodic Table

- All elements are listed on the **Periodic table**
- The scientist who arranged the elements was **Dmitri Mendeleev** in 1869.
- He **left gaps** in his original table for elements that had not been **discovered** yet
- They are ordered in **groups** according to their **reactions**.
- The **columns** are called **groups** and the **rows** are called **periods**.
- The elements are arranged in order of **atomic number**.
- Groups of elements have lots of similar **chemical properties**.
- Elements are represented by a **symbol**; a short-hand form of their name.

Periods	Group 1																Group 2																Group 3																Group 4																Group 5																Group 6																Group 7																Group 8																Group 9																Group 10																Group 11																Group 12																Group 13																Group 14																Group 15																Group 16																Group 17																Group 18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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7. Group 1 Metals

- Different groups of the periodic table have **patterns** in their properties and reactivity.
- Group 1 are the **most reactive** metals and the **reactivity increases** down the group.
- In Group 7 the **reactivity decreases** down the group.

SCIENCE Y8 ENERGY KNOWLEDGE ORGANISER

1. Heat and Temperature

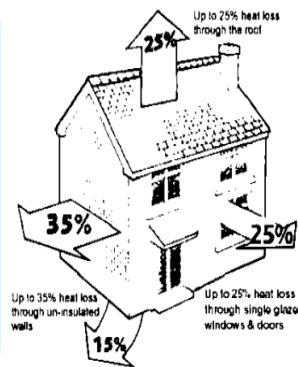
- Heat is an **energy store** whereas **temperature** is a measure of how hot something is.
- An object at higher temperature transfers **thermal energy** to the surroundings until they are at the same temperature.
- How quickly this happens depends on the **thermal conductivity** of the materials.

4. Conduction

- When energy is transferred by vibrating particles in a substance
- The energy is transferred from a hotter region to a colder region
- Materials which transfer energy easily in this way are called **conductors**.

2. Energy in the Home

- Reducing heat loss by conduction, convection and radiation can save money and help the environment.
- Double glazing, loft insulation, wall insulation and draught excluders can help with this



3. Heat Energy Transfer

- Thermal energy can be transferred by particles, using **conduction** and **convection**. It can also be transferred by **radiation**.
- Internal energy** is the energy stored in a system by the particles. When heat is added the internal energy of the particles increases.

5. Convection

- Liquids and gases are fluids because they can flow
- Particles in a fluid can move from one place to another.
- When particles in a fluid are heated, they move around faster and spread further apart, this makes them less dense. Hot fluid rises and the denser colder fluid sinks.

6. Radiation

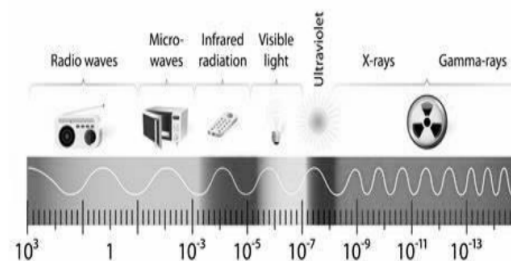
- All objects transfer infra-red radiation to their surroundings.
- The hotter the object, the more infra-red radiation it emits.
- There are no particles involved in radiation, infra-red radiation is a type of electromagnetic wave.

6. Electromagnetic Spectrum (EMS)

Electromagnetic waves carry energy, those waves that carry heat energy are called infra red radiation. Heat energy transferred by radiation does not involve particles which means it can travel through space (a vacuum). There are a whole range of waves that can carry energy, and these can be found in the electromagnetic spectrum.

The electromagnetic spectrum ranges from long wavelength, low frequency waves (like **radio waves** which can be used for communication) to short wavelength, high frequency waves (like **gamma rays** which can be used for medical treatment). Visible light is also found on the electromagnetic spectrum

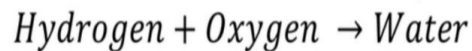
THE ELECTROMAGNETIC SPECTRUM



SCIENCE Y8 REACTIONS KNOWLEDGE ORGANISER

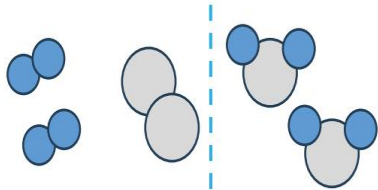
1. Balancing Equations

- The number of atoms of the reactants needs to be the same as the number of atoms of the products



Reactants

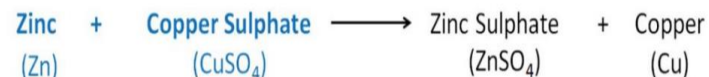
Product



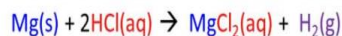
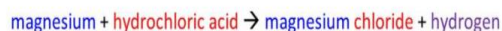
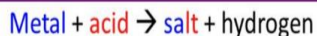
2. Displacement Reactions

When a more reactive element displaces a less reactive element in a compound.

Zinc is more reactive than copper



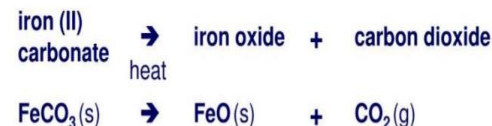
3. Metal and Acid Reactions



- calcium + hydrochloric acid $\rightarrow$ calcium chloride + hydrogen
- calcium + nitric acid $\rightarrow$ calcium nitrate + hydrogen
- calcium + sulfuric acid $\rightarrow$ calcium sulfate + hydrogen

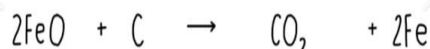
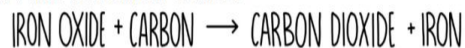
3. Thermal Decomposition

Thermal decomposition is a chemical reaction that happens when a compound breaks down when heated.



5. Carbon Extraction

- The extraction of a metal from its ore depends on the metal's position in the reactivity series.



Hematite
 Fe_2O_3



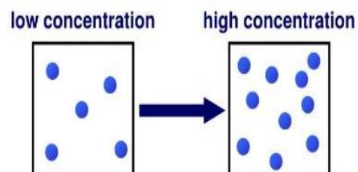
Magnetite
 Fe_3O_4



Bauxite
 $\text{Al}_2\text{O}_3 \cdot 2\text{H}_2\text{O}$
Aluminum ore

6. Concentration

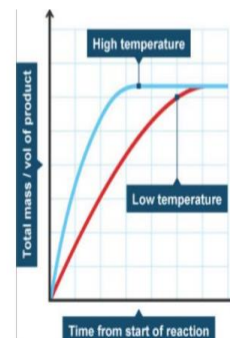
- The amount of a substance in a given volume.
- The higher the concentration, the faster the rate of a reaction.
- In higher concentrations there are more collisions between reactants.



7. Temperature

- Increasing the temperature a reaction takes place at increases the rate of reaction.

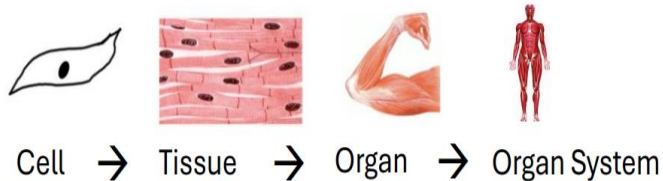
At higher temperatures, particles can collide more often and with more energy, which makes the reaction take place more quickly.



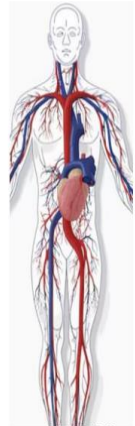
SCIENCE Y8 ORGANISMS KNOWLEDGE ORGANISER

1. Organisation

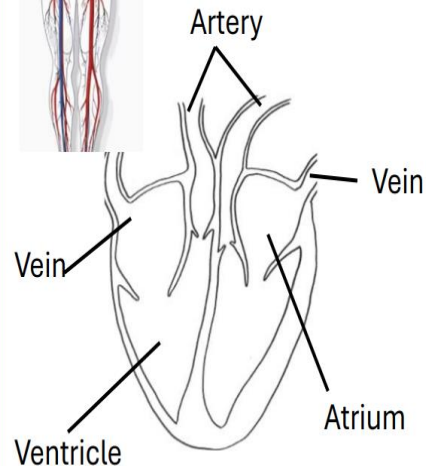
- The cell is the basic structural/functional unit – all organisms are made from cells.
- Cells with a similar structure and function (job) form tissues.
- One or more tissues forms an organ. One or more organs forms an organ system.



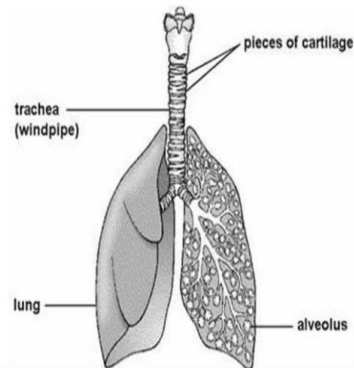
3. Circulatory System



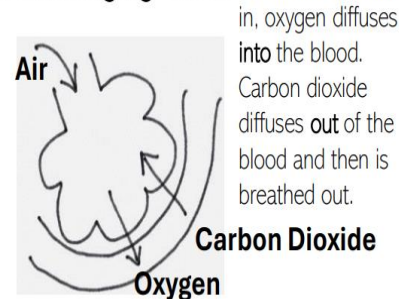
The circulatory system is made of the heart and blood vessels. It carries blood and substances like oxygen and glucose around the body.



4. Respiratory System

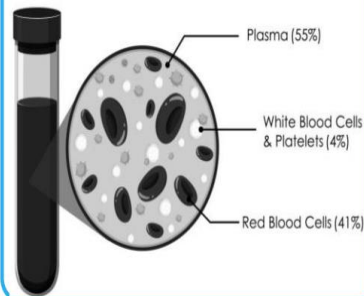


5. Exchanging Gases

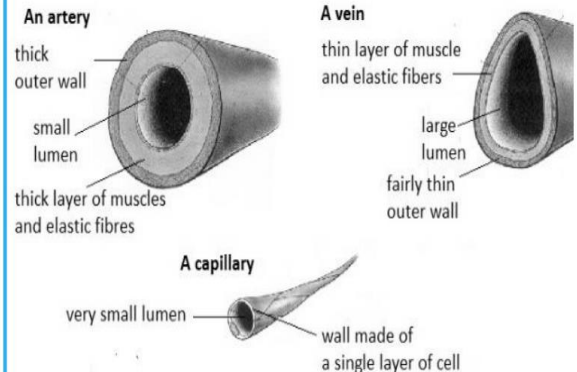


2. Blood

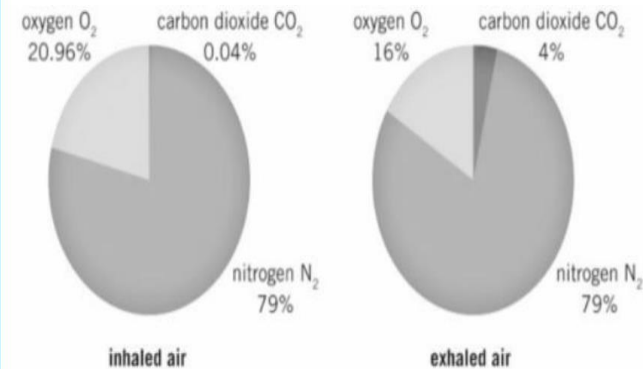
Blood transfers substances like glucose, oxygen, carbon dioxide and urea around the body.



2. Blood Vessels

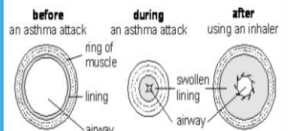


6. Breathing



Breathing in	Breathing out
Ribs move up and out	Ribs move down and in
Intercostal muscles contract	Intercostal muscles relax
Diaphragm contracts and flattens	Diaphragm relaxes
There is more space in the thorax	There is less space in thorax
Air rushes in	Air forced out

7. Asthma



During an asthma attack the airway narrows and less oxygen can get in. An inhaler relaxes the muscles, to open the air way to let in more oxygen.

8. Smoking

Tar	Causes lung cancer
Nicotine	Makes smoking addictive
Carbon Monoxide	Stops the red blood cells from carrying oxygen