



BRISTOL
METROPOLITAN
ACADEMY

Monday 21st April	Week A
Monday 28th April	Week B
Monday 5 th May	Week A
Monday 12 th May	Week B
Monday 19 th May	Week A

Please note: Maths homework will be on an online platform for this term. It will be set and checked weekly separately from the timetable.

Knowledge Organisers

2024-25

Year 7 – Term 5

Complete your homework on the night stated e.g. if it is a Monday Week A you will complete ICT/DT

	Week A	Week B
Monday	ICT/DT	MFL
Tuesday	English	English
Wednesday	Science	Science
Thursday	History	Geography
Friday	RS	Music/Art

Contents

How to...

Art – Pg 4

Computing – Pg 5

Drama – Pg 6-7

DT – Pg 8

English – Pg 9

Food – Pg 10

French XX

Geography – Pg 11

German – Pg 12-13

History – Pg 14

Maths – Pg 15-17

Music – Pg xx

PE – Pg 18

RS – Pg 19-21

Science – Pg 22-25

Spanish – Pg 26-27

Textiles – Pg 28

This Knowledge Organiser is to help you see the key information for each subject for this term. You can use this to help you both with homework and with revision, supporting your learning at home. In the table below you will find the instructions for each subject to be completed on the correct day.

Subject	Tasks
Maths	Homework question tasks/sets will be set weekly on an online platform. You will have one week to complete this online, before it is checked for competition and the next set is published.
Science	For term 2 this will be directed by your classroom teacher. It could involve an online platform too.
English	Using the separate question booklet, divide your homework book page in half length ways, write the questions out on the left hand side. First, attempt to answer the questions from memory/your own knowledge. Then use your knowledge organiser booklets to check your answers and fill in the missing ones.
MFL	Find the correct date in the KO and the question booklet. With the list of 10 key words for that week, complete the look – say - cover – write – check method in your homework book. Complete this process for each word/phrase 4 times each.
Geog/Hist/RS/ DT/Computing	Same process as outlined for English above. DT and ICT/Computing have 5 questions and not 10.
Music/Art	For music and art, you will have two practical tasks to complete each term for each subject. These will be found in the question booklets and will be checked by you classroom teacher.

At the back of this booklet, you will find: Sentence starters, a history chronology, DT sentence starters, a periodic table, maps of the world, subject websites, a RAG sheet and a timetable.

How to present your homework:

Subject written on the left-hand side of the page and underlined.
For example: Food

Topic written on the centre of the page and underlined.
For example: Sugars

One single straight line between both pieces of homework.

Subject: Food

Tuesday 25th June 2019

Topic: Sugars

keyword	Definition
Monosaccharides	
Disaccharides	
Intensive sugars	
Polysaccharides	

Subject: English

Topic: Macbeth

1. Who are the four most important characters in Macbeth?

Macbeth, Lady Macbeth, Banquo and Macduff.

2. What are three character traits of Banquo?

Gentle, superstitious and ambitious.

3. How would you describe Lady Macbeth?

She is manipulative, cold-blooded and cruel.

4. How is Lady Macbeth two-faced?

She is warm and welcoming to Duncan, and then manipulates her husband to kill him.

5. What is the name of Banquo's son?

Fleance

Date written fully on the right-hand side of the page and underlined. This should be the day you complete the homework.

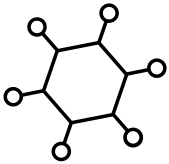
Home Learning Strategies to help you revise

Brain Dump



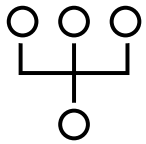
Write down everything you know about a certain topic on a page. Use your KO to add extra notes in a different colour.

Mind Map



Condense a topic showing the important links and connectors between key parts. Use your KO to add in extra notes.

Diagram



Draw a clear diagram for a subject including labels and key features. Make sure you use correct vocabulary and spellings.

Vocabulary



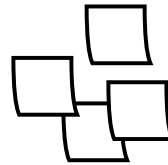
Learn the key words associated with a topic and commit the word and spelling to memory. Test yourself or ask someone else to test you.

Retrieval Quiz



Write key questions about a topic as well as the answers. Use the content of the KO to help you. Check to see if you can remember the answers without looking.

Compare



Complete a comparison table showing two different sides of a topic. Can you use it to create an argument for one viewpoint?

Ethnology - Mandala Art

Content: In this project you will develop an understanding of Ethnology within art. You will learn about Mandala art within Hindu and Buddhist culture

Knowledge—of artists who create Mandala art

Understand—What inspired artists to create their work and how to write about the work

Skills—drawing, pattern design, wax resist, collage and clay

Outcome— an A3 wax resist mandala with multimedia collage background

Mandala Art

The word Mandala means '**sacred circle**'. This circle is said to represent wholeness, health, connection, unity, harmony and the cycle of life. Mandala's are sacred pieces of artwork which are used to evoke healing, spiritual development and meditation.



Keywords

Ethnology—the study of the characteristics of different peoples and the differences and relationships between them

Pattern—a repeated decorative design

Complementary Colours—opposite each other on the colour wheel

Analysis

All artist research pages should be annotated

Artwork-

- **Artist name**
- Describe the work-what does it look like?
- Use the formal elements i.e. colour, line etc.
- What techniques/materials were used?
- What is your opinion of the work?
- How is it relevant to your own idea?

Sentence starters

I like/dislike the way the artist has used... because

I think the colour scheme used is effective because...

I think the artist has been inspired by...because

Evaluation of Your Artwork-

- What inspired you to create the piece?
- What techniques did you use and why?
- What does it mean to you?
- How is it relevant to your idea?

Consider

Hindu & buddhist art, geometric pattern, mandala art

Assessment



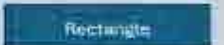

D	Demonstrate a deepening knowledge, understanding and skill
O	On Track—demonstrate some knowledge, understanding and skills
Y	Yet to be on track—developing some knowledge, understanding and skills
A	At an earlier stage—starting to develop some knowledge, understanding and skills

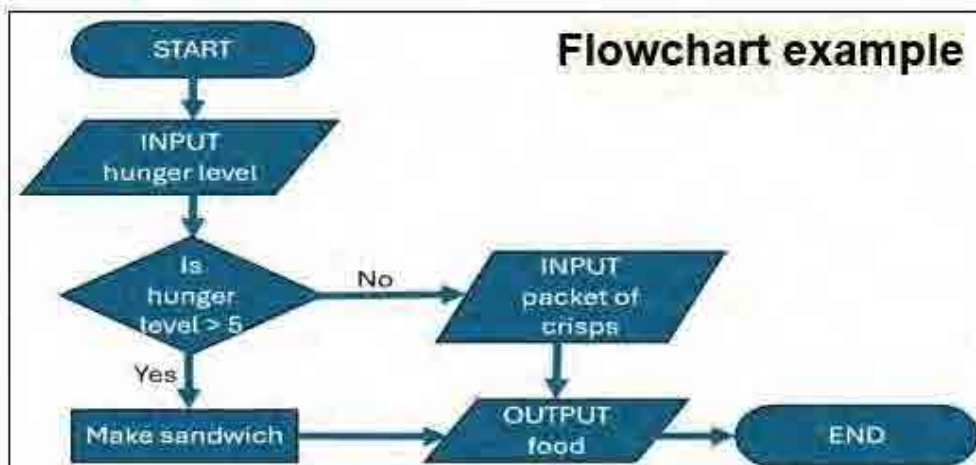
Artist



Prasun Balasubramaniam is a self-taught Mandala artist and illustrator from Salem, Tamil Nadu, India. She is known to create intricate, vibrant, and vivid artworks, and believes that Mandalas require intense focus and attention to the present moment, which induces mindfulness.

Flowchart symbols

Symbol	Name	Description
	Terminator	START or END
	Input / output	Something goes into or comes out of the system.
	Process	Something is changed / something happens
	Decision	When a question needs to be answered



Computational thinking

Techniques for solving complex problems in computer science

Algorithm

An algorithm is a set of step-by-step instructions to complete a task.

Abstraction

The process of removing unnecessary details to simplify a problem.

Decomposition

The process of breaking down a task into smaller sub tasks.

Vector graphics

Images created using lines and curves, so they can be infinitely scaled without loss of quality.

Advantages:

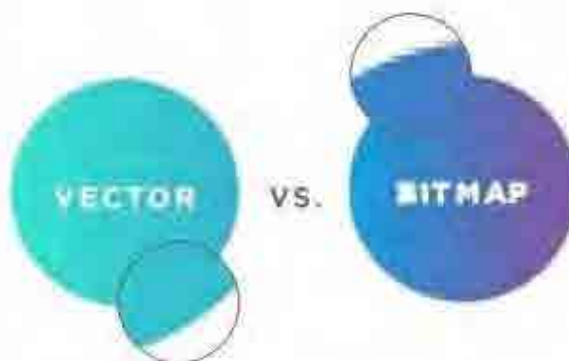
When you zoom in, vector graphics still have sharp edges and neatly defined lines.

Disadvantages:

Vector images can be more difficult to create. They cannot be used in every situation.

Uses:

Best used for icons and logos. E.g.:



Bitmap images

Made up of individual pixels

Images taken from a camera are "bitmap" images. They are stored as individual pixels, where the colour of each pixel is represented by 1s and 0s.

Uses:

Photos, magazines, newspaper images

Inkscape

An application for creating vector graphics

Shapes:

Squares, lines, circles, polygons, stars

Tools:

Draw shape, select, add text, erase, fill, rotate



INKSCAPE

Drama Year 7 Term 5 & 6

Knowledge organiser



Characterisation

Every person is a unique individual. Your role may have similarities to you but may also be vastly different. The way a person feels, thinks and the experiences they have had affect the way they move and speak.

Think about the role you are playing in detail. Consider where the person is from, what sort of accent they have and how old and how confident they are. Ask yourself how this affects their pace, weight on the ground and posture. No two characters are ever completely alike. A skilled actor is versatile and able to change vocal and physical characteristics to communicate a role effectively.

Mime

Mime could mean:

- working in silence, or with few sounds or words, to show activities, eg painting a wall or opening a door;
- working with dialogue but while miming any props or set, eg using the audience as a mirror to apply make-up while addressing another character onstage;
- Physical theatre, which often incorporates mime techniques and where actors can also mime items of set or props

Role play

This is the act of pretending to be somebody else, of taking on a role. The role may be from a script or a character you have created. Thinking, acting and even feeling differently to your ordinary self can help you empathise with that person and better understand an issue or theme.

This explorative strategy would be effective if you were using the work of Konstantin Stanislavski as your chosen style. He took the approach that the actor should inhabit the role that they're playing. The actor shouldn't only know what lines they need to say and the motivation for those lines, but should also know every detail of that character's life offstage as well as onstage.

You could use a role on the wall diagram to help you. Divide an outline of a person in two from top to bottom. Write down what the character thinks and feels on one side and what other characters think and feel about your character on the other side. You can also include factual information about the role you are playing around the outside of the figure. This will help you understand your character better.

Still image

This is a frozen picture which communicates meaning. It's sometimes called a **freeze frame** or **tableau**. It can provide **insight** into character relationships with a clear focus upon use of space, levels, body language and facial expression.

Still images can be used in a variety of ways. During a long speech they might be used to punctuate the words with clear imagery, making the drama onstage more interesting by adding a visual dimension to the work. They can also be used for marking the moment to explore a key moment in time.

You could use still images to create a photo album as an insight into a character's past life and relationships. It would be possible to use them to break down a complicated plot into clear snapshots of its key moments in development. Still image is also a useful way to **storyboard** early devised work.

Still images can be **naturalistic**, a photograph of an important moment or **abstract**, more representational of feelings or an event.

A picture paints a thousand words. Condensing emotions, events or relationships into an image is an excellent way of ensuring these are communicated in a detailed and effective way.

Hot-seating

This is an exercise to deepen understanding of character. An actor sits in the hot-seat and is questioned **in role**, spontaneously answering questions they may not have considered before.

Hot-seating helps an actor become more familiar with their role. The questioners should also act as observers as feedback can be very useful.

Ask questions that force the actor to consider the life of their character in depth and beyond the world of the play. You could ask them about home life, childhood, family relationships, hopes, fears, hobbies and how they feel about other characters.

Make a note of any mannerisms that emerge which can be incorporated into performance, such as twisting hands out of nervousness or speaking slowly with a serious tone of voice and fixed eye contact. If something works for the character you are playing, keep it.



Thought-tracking and hot-seating

A thought-track is when a character steps out of a scene to address the audience about how they're feeling. Sharing thoughts in this way provides deeper insight into the character for an audience.

In rehearsal it's an effective way of exploring characters and scenes in greater depth. Stopping the action and sharing thoughts enables the actor to fully understand how their character thinks or feels at any given moment. Sometimes the character might feel something different to the words they're speaking. This is called **subtext** and thought-tracking is a useful way of exploring it to realise the many layers within a scene.

Using mime and gesture on stage

Mime is the art of demonstrating an action with an object that doesn't exist. It's a very disciplined and precise act. The actor must pay real attention to detail for it to be effective. If you want the audience to 'believe' you're using an object, make sure that it doesn't just simply 'vanish' after you've finished with it. If you're miming drinking at a party and then need your hands for something else, put the imaginary glass down first.

The set can also be mimed and again, the same principles apply. If a table is mimed the actors need to be fully aware of where that 'table' is onstage. They mustn't move through it or the illusion is broken. They should all be able to place things on it so we see that it is a consistent size and height.

Messy mime can look amateurish. If you do use mime in a piece of theatre, ensure that you practise making your movements precise so that the audience can clearly see what it is you are doing.

Narrating

Narrating is adding a spoken commentary for the audience about the action onstage. A narrator is like a storyteller informing the audience about the plot.

Narration is useful in making a story more understandable for the audience. It also makes the drama **stylised**. This means that it becomes non-naturalistic because the audience are aware throughout that a story is being told and the **fourth wall** is broken.

Narrating can make a drama more understandable or stylised in a number of ways:

- an actor can speak the commentary over the action happening in the drama
- a character can say out loud what they think the audience needs to know about the characters or the situation of which they're a part, which is known as self-narrating
- an actor can just tell the audience what they need to know in between scenes
- a character can read or write a diary or letter that informs the audience what is important for them to know about what is happening or going to happen

This explorative strategy would be effective if you were using Brecht, Theatre in education, Musical theatre or Artaud in your chosen style. Try it out in rehearsal to see if it works in your performance.

Cross-cutting

Cross-cutting is a device to move between two or more scenes staged in the space at the same time. It's important that the audience know which part of the action they should follow so one part of the action remains in still image while another scene is played out, directing the audience's focus. Using this technique you can move backwards and forwards between separate locations and time frames.

For example, a theatre company is creating a piece of work exploring Christmas. The production team want to show the differences between a rich and poor family on this day. Two separate scenes are developed and placed onstage. Instead of playing simultaneously the rich family scene plays first with children opening many presents. This freezes in a still image and the poor family come to life with their simple gifts providing a contrast. This scene ends in a still image and the group cross-cut to the rich family once again who are having a lavish Christmas dinner. They freeze and the poorer family's dinner is enacted.

Cross-cutting is an excellent way to explore the contrast between situations by making differences clear for the audience. It can also be used to give them additional information. It enables performers to move quickly between locations and scenes without interrupting the flow of the drama they're creating. Whilst it's a performance technique it can also be used within a workshop to place characters within different time frames for explorative purposes.

Year 7 D&T – Gumball Machine Project



It's better to use materials from **renewable resources** — ones that are replaced naturally as fast as we use them up. For example, pine from well-managed plantations is quite a sustainable choice. (But if the timber has to be transported a long way, that'll probably use up a lot of fossil fuels.) Natural fibres used for textile (e.g. cotton) are all renewable.

Using **recycled materials** means that fewer new resources are needed, and often less energy is used. For example, recycling old food cans takes much less energy than mining and processing new metal.

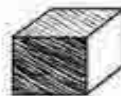


1 km = 1000 m

1 m = 100 cm

1 cm = 10 mm

Hatching



Blending



Crosshatching



Stippling



PINE Pine is a softwood which grows in most areas of the Northern Hemisphere. There are more than 100 species worldwide. **Properties:** Pine is a soft, white or pale yellow wood which is light weight, straight grained and lacks figure. It resists shrinking and swelling.



Evaluation

Designers evaluate their finished products or prototypes in order to test whether they work well and if the design can be corrected or improved. Whatever you have designed it is important to evaluate your work constantly during the project.

Evaluation can take a variety of forms:

- General discussion with other pupils, staff and others.
- Questionnaires / surveys carried out at any time during the project.
- Your personal views, what you think of existing designs.
- Most important of all - what do you think of your designs, prototypes and finished products?
- Can you think of any other ways of evaluating your work?

Remember to always suggest improvements when evaluating!

Health and safety rules

1. Always listen carefully to the teacher and follow instructions.
2. Do not run in the workshop, you could 'bump' into another pupil and cause an accident.
3. Know where the emergency stop buttons are positioned in the workshop.
4. Always wear an apron as it will protect your clothes and hold loose clothing such as ties in place.
5. When attempting practical work all stools should be put away.
6. Bags need to be left in the cubicles and not under desks
7. Do not use a machine if you have not been shown how to operate it safely by the teacher.

Analyse the above Gumball Machines using ACCESS FM.

We use **ACCESS FM** to help us write a **specification** - a list of requirements - and to help us **analyse and describe** an already existing design.

A is for **Aesthetics**



What does it look like? What is the shape/ colours/ style/theme?

C is for **Cost**



How much does it cost to make? How much do I need to sell it for?

C is for **Customer**



Who is the product made for? Why will it appeal to them?

E is for **Environment**



Is this product environmentally friendly? How could it be better?

S is for **Size**



What are the dimensions of the product? Is this a suitable size? Why?

S is for **Safety**



How has this product been made safe to use? Can the safety be improved?

F is for **Function**



What does the product do? Does it do it well?

M is for **Material**



What is this material made from? Is this a good material to use? Why?

Target Market

Who is the customer?

A **target market** is the set of **customers** sharing common needs, wants & expectations that a business tries design a product for.



File



Coping Saw



Tri-Square



Tenon Saw



Bench Hook



Pillar Drill



Vertical Sander



Emergency stop

Plot Summary - The Tempest by William Shakespeare		Context	
<div>1. A ship is caught in a tempest and begins to sink.</div> <div>2. Prospero tells Miranda that he caused the storm.</div> <div>3. Ariel fetches Ferdinand, who falls in love with Miranda.</div> <div>4. Antonio and Sebastian plot to kill Alonso, the King of Naples.</div> <div>5. The ship's jester and butler meet Caliban and feed him alcohol.</div> <div>6. Caliban suggests that they should kill Prospero, and Ariel overhears.</div> <div>7. Prospero uses magic to scare Alonso and spoil Caliban's plot.</div> <div>8. Prospero forgives the passengers for their former betrayals.</div>		<div>Famous storm</div>	Shakespeare's portrayal of the catastrophic storm that opens the play probably comes from reports of a real shipwreck which occurred in Bermuda in 1609. The Tempest directly references Bermuda in Act I, scene ii, when Ariel says Prospero asked him to make a storm.
		<div>Collonialism/ period of discovery</div>	Shakespeare was inspired by Michel de Montaigne's "Of the Cannibals". Gonzalo's speech in Act II envisions how he would rule the island- by rejecting the usual rules of a civilized society, and instead copying a "primitive" society.
Characters		<div>Shakespeare's final play</div>	The imagery of Propspero throwing down his staff has been interpreted as Shakespeare giving up his craft at the end of his career.
<div>Prospero</div>	The play's protagonist, and father of Miranda. Twelve years before the events of the play, Prospero was the duke of Milan. His brother, Antonio, with Alonso, king of Naples, usurped him, forcing him to escape in a boat with his daughter. The honest lord Gonzalo aided Prospero in his escape. He uses magic to punish his enemies.		
<div>Miranda</div>	The daughter of Prospero, Miranda was brought to the island at an early age and has never seen any men other than her father and Caliban. Because she has been away from the world for so long, Miranda's ideas of other people tend to be childishly positive. She is compassionate, generous, and loyal to her father.	Vocabulary and Terminology	
<div>Ariel</div>	Prospero's spirit helper. Often called "he", his gender and physical form are ambiguous. Rescued by Prospero from a long imprisonment by the witch Sycorax, Ariel is Prospero's servant until Prospero decides to release him. He is mischievous and everywhere, able to travel the length of the island in an Instant and to change shapes at will. He carries out virtually every task that Prospero needs accomplished in the play.	<div>Usurped - take (a position of power or importance) illegally or by force.</div>	<div>Ambiguous - open to more than one interpretation; not having one obvious meaning.</div>
<div>Caliban -</div>	Another of Prospero's servants. Caliban, the son of the witch Sycorax, welcomed Prospero to the island. Caliban believes that the island rightfully belongs to him and has been stolen by Prospero. His speech and behaviour is sometimes coarse and brutal, as in his drunken scenes with Stephano and Trinculo.	<div>Colonialism - taking control over another country, occupying it with settlers, and exploiting it economically.</div>	<div>Enchantment - the state of being under a spell; magic.</div>
Themes		<div>Prose - written or spoken language in its ordinary form, without metrical structure.</div>	<div>Verse - writing arranged with a metrical rhythm, typically having a rhyme.</div>
<div>Forgiveness + repentance - Antonio, his brother, wronged him by dethroning and banishing some twelve years ago. Antonio was supported by Alonso and Sebastian. These three characters get punished.</div>		<div>Comic relief - humorous content in a play intended to offset more serious episodes.</div>	<div>Betrayal - the action of betraying one's country, a group, or a person; treachery.</div>
<div>The difficulty of distinguishing "Man" from "Monster" - The identity of Caliban remains ambiguous in this play. Sometime he is addressed as monster and in some places he is called man.</div>			

Year 7 Food Knowledge Organiser

Nutrients

Nutrients are chemical found in food which our bodies need for daily functions.

Macronutrients are nutrients our bodies need in large amounts.



Fats

Functions: *Insulation (keeps you warm), secondary source of energy, dissolves vitamins.*

Food sources: *oil, meat, fish, coconut oil, butter, margarine, avocados.*

Excess (too much): *weight gain, coronary heart disease, type 2 diabetes.*

Deficiencies (too little): *feel the cold, weight loss, vitamin deficiency.*

Carbohydrates

Functions:

Main source of energy, stores energy for later, builds DNA.

Food sources:

Bread, rice, pasta, flour, bananas, sugar.

Excess (too much):

Weight gain, obesity, type 2 diabetes, tooth decay.

Deficiencies (too little):

Weight loss, lack of energy, severe weakness.

Proteins

Functions:

Growth, repair of cells and wounds, defends the body (antibodies), secondary source of energy.

Food sources:

Meat, chicken, eggs, dairy, beans, legumes, chickpeas, soya beans.

Excess (too much):

Kidney and liver diseases, weight gain.

Deficiencies (too little):

Slow growth rate, swelling.

Where does our food come from?

All food must be grown, reared or caught.

In the past food was grown, prepared and cooked at home or sold by small-scale producers or merchants.

Some people still grow food at home or on allotments. Food can also be bought from a wide range of sources, including:

- cafes/coffee shops;
- convenience stores;
- farmers markets;
- farm shops;
- markets;
- on-line retailers;
- restaurants;
- supermarkets;
- takeaway outlets.

Where should food be stored in the fridge?

Cheese, dairy and egg-based products

The temperature is usually coolest and most constant at the top of the fridge, allowing these foods to keep best here.

Cooked meats

Cooked meats should always be stored above raw meats to prevent contamination from raw meat.

Raw meats and fish

Raw meats and fish should be below cooked meats and sealed in containers to prevent contamination of salad and vegetables.

Salad and vegetables

These should be stored in the drawer(s) at the bottom of the fridge. The lidded drawers hold more moisture, preventing the leaves from drying out.

Storing foods the correct way will prevent food from being spoilt.



The Eatwell Guide



The Eatwell Guide

Makes up 5 main food groups.

Is suitable for most people over 2 years of age.

Shows the proportions in which different groups of foods are needed in order to have a well-balanced and healthy diet.

Shows proportions representative of food eaten over a day or more.

Year 7 Geography

Term 5

Why is Russia a vast wilderness?

Biomes of Russia

Steppe	An area of grassland, too dry for forests but with really fertile, good for farming soils called chernozems
Taiga	An area of coniferous trees (evergreen) that covers 60% of Russia.
Temperate forest	An area containing deciduous trees, such as oak and ash, can be found in the west of Russia
Tundra	An area found in the north, where temperatures drop to -50°C in the winter. Trees cannot grow because the ground is frozen all year, this is called permafrost .

- Russia shares borders with many countries including: China, Ukraine, North Korea and Norway.
- Russia is the largest country in the world, in terms of land area and covers 17 million km^2

Physical landscapes of Russia

Russia's longest river is the Volga. at 3692km long (Europe's longest river).

Caucasus Mountains where the highest peak is Mount Elbrus

Lake Baikal was formed by a rift valley. It is the oldest and deepest lake in the world

Ural Mountains form a spine in west-central Russia

Kamchatka peninsula has 70 volcanoes and is a wilderness of rivers and hot springs.

Temperature = line graph



Precipitation = bar chart

A **climate graph** shows average annual **precipitation** (rainfall) and **temperature** throughout the year for a particular area.

Russia has a **continental climate** with two main seasons:
Long, dark, cold winters
Brief, often warm, summers.

Adaptations – how do plants and animals survive in the tundra?

Grow close to ground to protect them from the wind and cold

Darker leaves help absorb energy from sun



Cottongrass

Shallow root system because soil is often frozen

Two layers of fur to trap heat



Musk ox

Huddle together in winter to retain heat

Large, hard hooves to break ice to find water



Was ist dein Lieblingsfach?

Englisch
Informatik
Geschichte
Spanisch
Französisch
Deutsch
Theater
Kunst
Sport
Musik
Technologie
Erdkunde
Religion
Mathe/Mathematik
Naturwissenschaften
Chemie
Biologie
Physik
die Pause

What is your favourite subject?

English
Computer Science
History
Spanish
French
German
Drama
Art
PE
Music
Technology
Geography
RS
Maths
Science
Chemistry
Biology
Physics
Breaktime

**Beschreib deine Schuluniform****Ich trage...**

eine Jacke / einen Blazer
einen Pullover
ein Hemd
ein T-Shirt
eine Krawatte/einen Schlips
einen Rock
eine Hose
Socken
Schuhe
eine Strumpfhose

Describe uniform**I wear..**

Blazer
Jumper
Shirt
T-shirt
Tie
Skirt
Trousers
Socks
Shoes
Tights

**German Year 7.3 My Life at School****Was denkst du?**

Es ist
Ich mag
Ich liebe
Ich mag...nicht
Ich hasse
Ich finde
interessant
praktisch
nützlich
(un)bequem
modisch/hässlich
altmodisch
teuer/billig
modern
schmutzig/sauber
musikalisch
pünktlich
kreativ
richtig

What do you think?

It is
I like
I love
I don't like
I hate
I find
Interesting
Practical
Useful
Uncomfortable
Fashionable/ugly
Old fashioned
Expensive/cheap
modern
Dirty/clean
Musical
Punctual
creative
correct / right

Verben in der Schule

studieren
hören
plaudern
arbeiten
verbringen
spielen
lesen
sich entspannen

Verbs in School

To study
To hear
To chat
To work
To spend (time)
To play
To read
To relax

Lehrer

nett
angenehm
langweilig
froh/glücklich
lustig
streng
stark
schwach
jung
alt
klein/groß
laut
klug
intelligent
ernst
schüchtern
fleißig
faul
gemein/böse

Teachers

Nice
Pleasant
Boring
Happy
Funny
Strict
Strong
Weak
Young
Old
Small/tall
Loud
Clever
Intelligent
Serious
Shy
Hardworking
Lazy
mean/nasty

Meinungen

schlecht
einfach
toll
schwierig
gut
furchtbar

Opinions

Bad
Easy
Great
Difficult
Good
awful

Wie spät ist es? What is the time?

Es istUhr = ...o'clock
Es ist Viertel nach vier = 4.15
Es ist Viertel vor drei = 2.45
Es ist halb acht = 7.30
Es ist zehn nach neun = 9.10
Es ist zwanzig vor elf = 10.40
Es ist fünf vor vier = 3.55



Free time - 7.4 German vocab list



Wann?	When?
normalerweise	Normally
meistens	Usually
jeden Tag	Every day
zweimal pro Woche	Twice a week
ab und zu	From time to time
selten	Rarely
oft	Often
manchmal	Sometimes
nie	never

Beschreibungen	Descriptions
aktiv	active
beliebt	popular
klassisch	classical
sportlich	sporty
gesund	healthy
kreativ	creative
schnell	quick

Wie ist das Wetter?	What is the weather like?
Es ist schön	It is good weather
Es ist heiß	It is hot
Es ist kalt	It is cold
Es ist 25 Grad	It is 25 degrees
Es ist schlecht	It is bad weather
Es regnet	It is raining
Es schneit	It is snowing
Es ist wolkig	There are clouds
Es gibt Stürme	There are storms
Es ist sonnig	It is sunny
Es ist windig	It is windy
Es ist neblig	It is foggy
Es donnert und blitzt	Thunder and lightning



Welche Sportarten magst du?
Ich spiele gern Fußball
Ich spiele Rugby
Ich spiele nicht gern Tennis
Ich spiele gern Golf
Ich spiele Volleyball
Ich spiele Basketball
Ich spiele Tischtennis
Ich fahre Rad
Ich gehe Skifahren
Ich gehe Eislaufen
Ich schwimme
Ich laufe
Ich jogge
Ich mache Gymnastik
Ich gehe reiten
Ich mache Leichtathletik
Ich mache Training

Was siehst du gern im Fernsehen?

Ich sehe gern...
Die Nachrichten
Die Komödie
Der Zeichentrickfilm
Die Dokumentation
Die Sendung
Die Seifenoper
Der Komödienfilm
Der Liebesfilm
Der Actionfilm
Der Horrorfilm
Der Krimi
Die Spielshow
Die Serie

What sport do you like?

I like playing football
I play rugby
I don't like playing tennis
I like playing golf
I play volleyball
I play basketball
I play table tennis
I cycle
I go skiing
I go ice skating
I swim
I run
I jog
I do gymnastics
I go horse-riding
I do athletics
I do training

What do you like to watch?

I like to watch...
The news
The comedy
The cartoon
The documentary
The programme
The soap opera
The comedy film
The romantic film
The action film
The horror film
The detective film
The game show
The series

Was machst du gern?

Ich sehe fern
Ich höre Musik
Ich gehe ins Kino
Ich lese ein Buch
Ich gehe einkaufen
Ich gehe zum Park
Ich gehe ins Fitness-Studio
Ich gehe spazieren
Ich gehe wandern
Ich treffe meine Freunde
Ich spiele Klavier
Ich besuche Familie
Ich gehe in die Stadt
Ich koche
Ich singe
Ich tanze
Ich schwimme
Ich tauche
Ich sammle...
Ich mache meine Hausaufgaben
Ich lade Musik herunter
Ich surfe im Internet
Ich spiele Computerspiele
Ich chatte mit meinen Freunden
Ich mache Fotos
Ich sehe mir lustige Videos an
Ich schicke SMS
Ich kaufe online
Ich schreibe eine E-Mail
Ich benutze mein Handy
Ich treibe... (Sport)

What do you like to do?

I watch TV
I listen to music
I go to the cinema
I read a book
I go shopping
I go to the park
I go to the gym
I go for a walk
I go hiking
I meet friends
I play the piano
I visit family
I go to town
I cook
I sing
I dance
I swim
I dive
I collect...
I do my homework
I download music
I surf the Internet
I play computer games
I chat online with my friends
I take photos
I watch funny videos
I send texts
I buy online
I write an email
I use my mobile phone
I do... (a type of sport)



Enquiry: What changed in the reformation?Summary

1	The reformation	Attempts to reform the Catholic Church and the development of Protestant Churches in western Europe are known as the Reformation.
---	------------------------	---

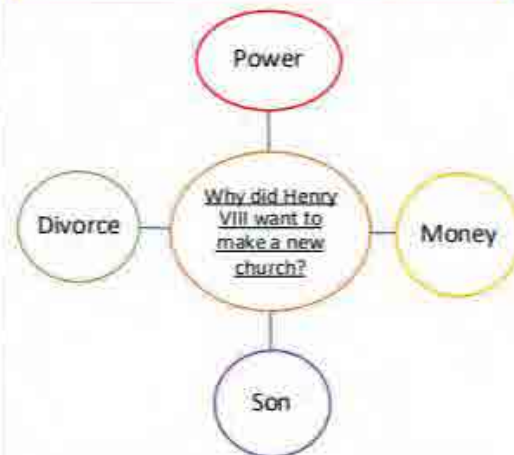
Key Events

2	1509 – Henry VIII becomes King of England
3	1517 - Martin Luther nailed 95 problems with the Catholic church to a church door sparking the Protestant Reformation .
4	25th January 1533 – Henry VIII secretly married Anne Boleyn.
5	23 May 1533 – Henry VIII marriage to Catherine of Aragon was annulled, they were divorced.
6	1536-1540 – The closure of English Monasteries by Henry VIII.

Key People

7	Martin Luther	A German monk that thought that the Catholic Church had too much power and was corrupt he set up the new Protestant church.
8	Pope Clement II	The head of the Catholic Church that refused to give Henry VIII a divorce.
9	Henry VIII	King of England from 1509-1547. Head of the Church of England.
10	Thomas Cromwell	Henry VIII put him in charge of getting rid of the monasteries.

History – Year 7 Knowledge Organiser Topic 5

PEE Paragraphs

To write a paragraph you explain your points in history we use PEE.

Point: Make your point to answer the question.

One reason Henry VIII made a new church was because he needed money.

Evidence: Give facts that support your point.

He didn't have any money because...

Explain: Give reasons why this evidence backs up your point.

By making a new church Henry VIII knew he would be able to gain money as...

Key Terms

11	heir-	Next in line to the throne.
12	Roman Catholic	The Christian church of which the Pope, or bishop of Rome, is the supreme head.
13	Protestant	Someone who follows the principle of Christianity using beliefs developed from the Reformation.
14	Break with Rome	Henry VIII decided to do this when the Pope would not authorise his divorce from Catherine of Aragon. He decided to break away from the Catholic Church and become head of the Church of England.
15	Dissolution of the Monasteries	The monasteries that were run by the Catholic Church and were homes for Monks and Nuns were closed down. They also provided hospital care and charity to the local people.

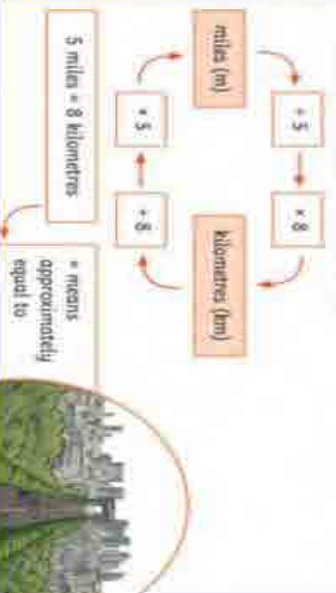
Six Wives of Henry VIII

YEAR 7 TERM 5 MATHEMATICS

UNIT OF MEASURE

Miles to Kilometres

You might measure the length of a road or the distance between two cities in miles or kilometres.



Time

Minute 1 minute = 60 seconds

Hour 1 hour = 60 minutes

Day 1 day = 24 hours

Week 1 week = 7 days

Year 1 year = 12 months = 52 weeks = 365 days



Imperial Measures

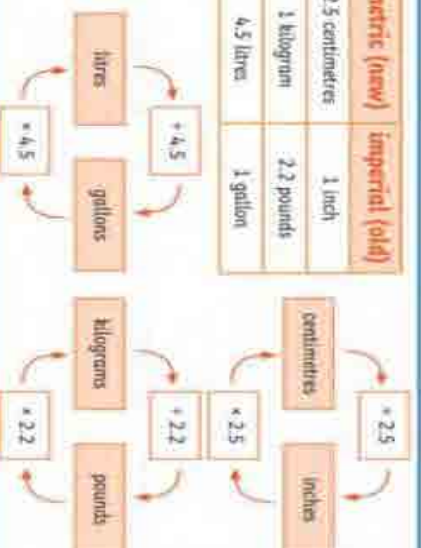
Things that could be measured using imperial units:

- Someone's height in feet and inches
- The mass of a bag of sugar in ounces
- The mass of a sack of potatoes in pounds
- A person's mass in stones
- A carton of milk in pints
- The amount of water in a bath in gallons

1 foot = 12 inches
1 pound = 16 ounces
1 stone = 14 pounds
1 gallon = 8 pints

Metric to Imperial Conversions

metric (new)	imperial (old)
2.5 centimetres	1 inch
1 kilogram	2.2 pounds
4.5 litres	1 gallon



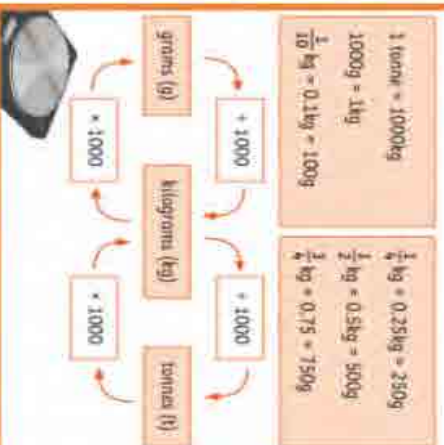
YEAR 7 TERM 5 MATHEMATICS

UNIT OF MEASURE

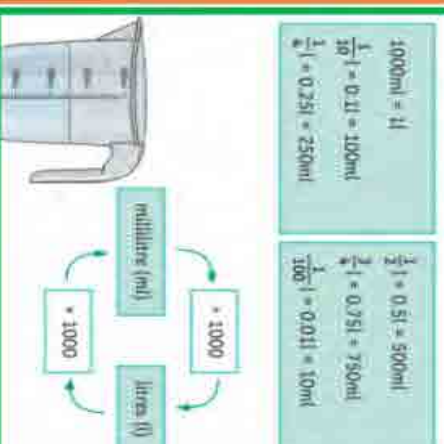
Key Vocabulary

mass
gram
kilogram
capacity
volume
millilitre
litre
millimetre
centimetre
kilometre
foot
inch
ounce
pound
stone
pint
gallon

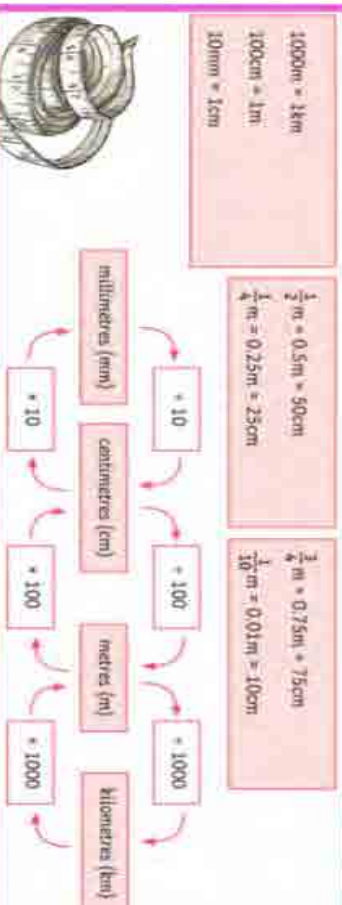
Converting Mass



Converting Capacity



Converting Length



YEAR 7 TERM 5 MATHEMATICS

PROPERTIES OF SHAPES

Key Vocabulary	Recognise and Describe 2D Shapes	Recognise and Describe 3D Shapes
two-dimensional (2D) three-dimensional (3D) flat solid corner apex vertex vertices side edge face curved straight round line of symmetry vertical pattern		

YEAR 7 TERM 5 MATHEMATICS

PERIMETER

Key Concept

2D Shapes

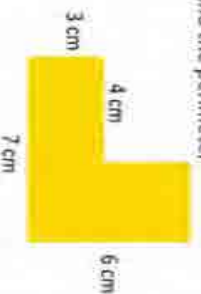
	Parallelogram
	Trapezium
	Right-angled triangle
	Isosceles triangle
	Equilateral triangle

Key Words

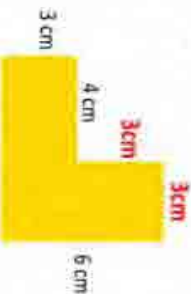
Perimeter: The distance around the outside of the shape.
Unit of measure: This could be any unit of length cm, inch, m, foot, etc.
Dimensions: The lengths which give the size of the shape.
Circumference: The perimeter of a full circle.

Examples

Find the perimeter

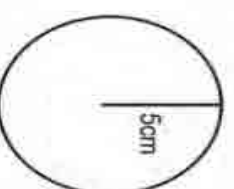


Step 1 - Find the missing lengths.



Step 2 - Add the lengths
 $3 + 4 + 3 + 3 + 6 + 7 = 26 \text{ cm}$

Find the circumference to 1dp



Radius = 5, Diameter = 10
 Circumference = $\pi \times d$
 Circumference = $\pi \times 10$
 Circumference = 31.4 cm

Useful Links

<https://www.mathswatch.co.uk/vie/>
<https://corbettmaths.com/contents/>
<https://www.bbc.co.uk/bitesize/subjects/rp1h34j>

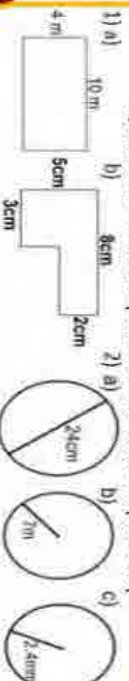
Tip

- Always include units with your answer.
 - If you don't have a calculator, use pi (π) as 3.142 or $\frac{22}{7}$.

Formula

Circumference = πd or $2\pi r$

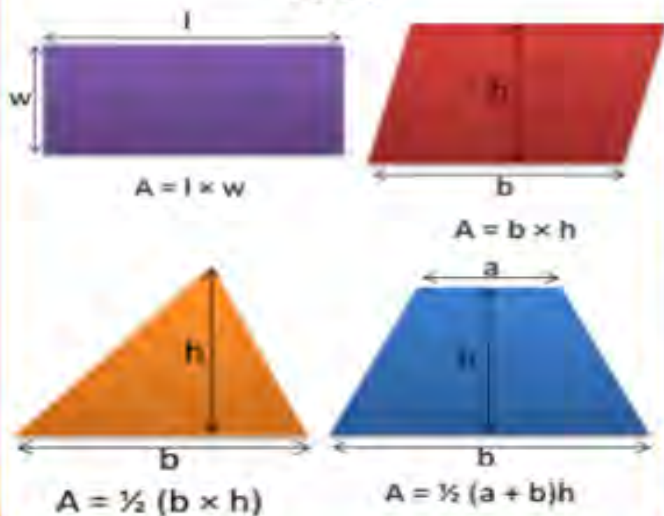
Questions - Find the perimeter of each shape to 1dp



www.151.co.uk 0746 9 40454 (e) 02 4092 9 4082 (e) 15845454

AREA AND PERIMETER

Key Concepts Area



Key Words

Area: The amount of square units that fit inside the shape.

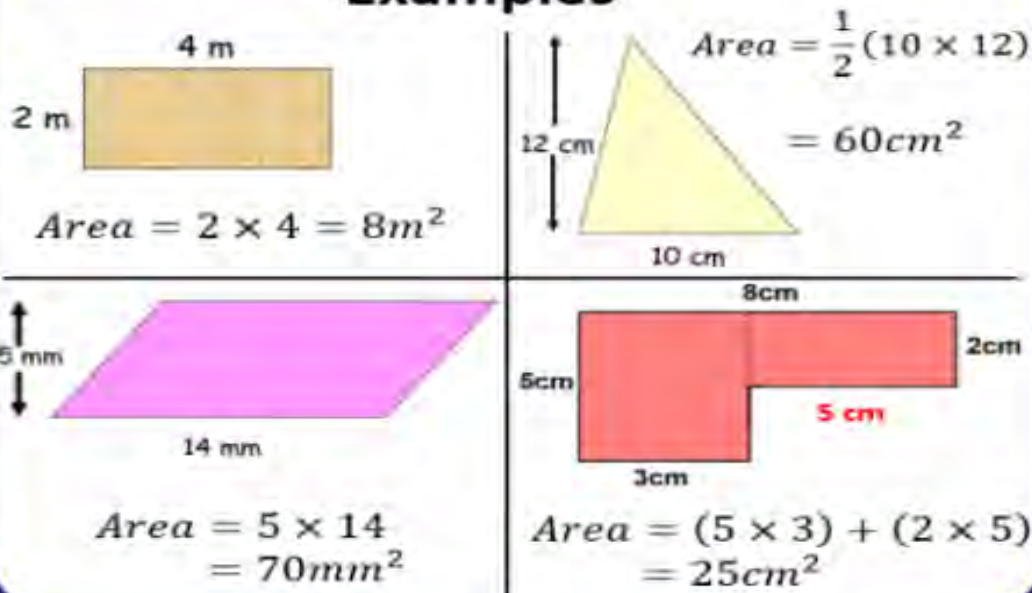
Perimeter: The distance around the outside of the shape.

Dimensions: The lengths which give the size of the shape.

Shapes:

Rectangle, Triangle, Parallelogram, Trapezium, Kite.

Examples



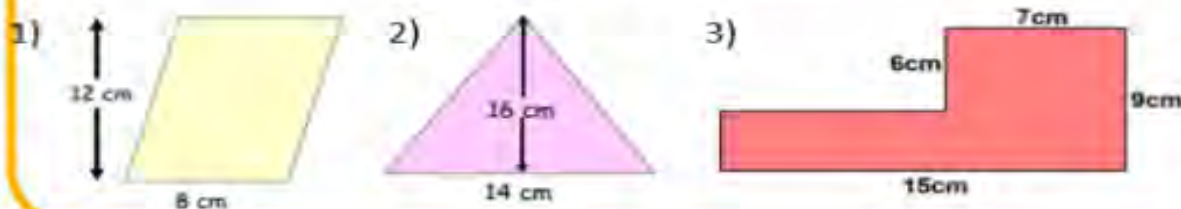
Useful Links

<https://vle.mathswatch.co.uk/vle/>
<https://corbettmaths.com/contents/>
<https://www.bbc.co.uk/bitesize/subjects/zqhs34j>

Tip

Always remember units. These units are squared for area. mm^2 , cm^2 , m^2 , etc

Questions – Find the area.



ANSWERS: 1) $96 cm^2$ 2) $112 cm^2$ 3) $87 cm^2$



Knowledge Organiser – PE Term 5: Anatomy & Physiology

	Benefits of exercise
Physical health and well-being	Improves fitness levels, heart function and efficiency of the body systems e.g. cardio-vascular system. Reduced risk of some illness e.g. diabetes, helps to prevent obesity, enables you to carry out everyday tasks without getting tired.
Mental health (emotional) and well-being	Reduces stress, release feel-good hormones in the body such as serotonin, increases confidence, helps us to control our emotions and increase resilience.
Social health and well-being	Provides opportunities to socialise/make friends, encourages cooperation and teamwork.



Muscle	Static Stretch
Triceps	
Hamstring	
Pectorals	
Quadriceps	
Gluteals	
Biceps	
Deltoids	
Abdominals	
Gastrocnemius	
Latissimus dorsi	



What do the Dharmic faiths believe?

Buddhism Knowledge Organiser



NEED TO KNOW WORDS

Buddha	It means 'the One who knows'.
Dhamma	Teachings. The things that Buddha and Buddhism teach about life.
Sangha	Community. The community of Buddhists across the world. Made up of lay people and monks and nuns.
Enlightenment	Waking up to what life is really like. This is what happened to Siddhartha Gautama.
Anicca	The idea that everything changes & decays. Nothing remains the same.
Dukkha	Suffering. Much of life is pain & suffering. It is just how life is.
Anatta	No self or soul. If <i>everything</i> changes, then there is nothing permanent in a human, like a soul.



Overview

Buddhism is one of the world's major religions. It is the **world's 4th largest religion**, with about 520 million followers.

Buddhists are the people who follow Buddhism. They follow the teachings of a man named **Siddhartha Gautama**, who became known as the **Buddha**.

The religion began when Gautama, a prince who had lived a life of luxury, realised that there **was suffering in the world**, and committed himself to understanding why.

This happened in **India** around **2,500 years ago**.

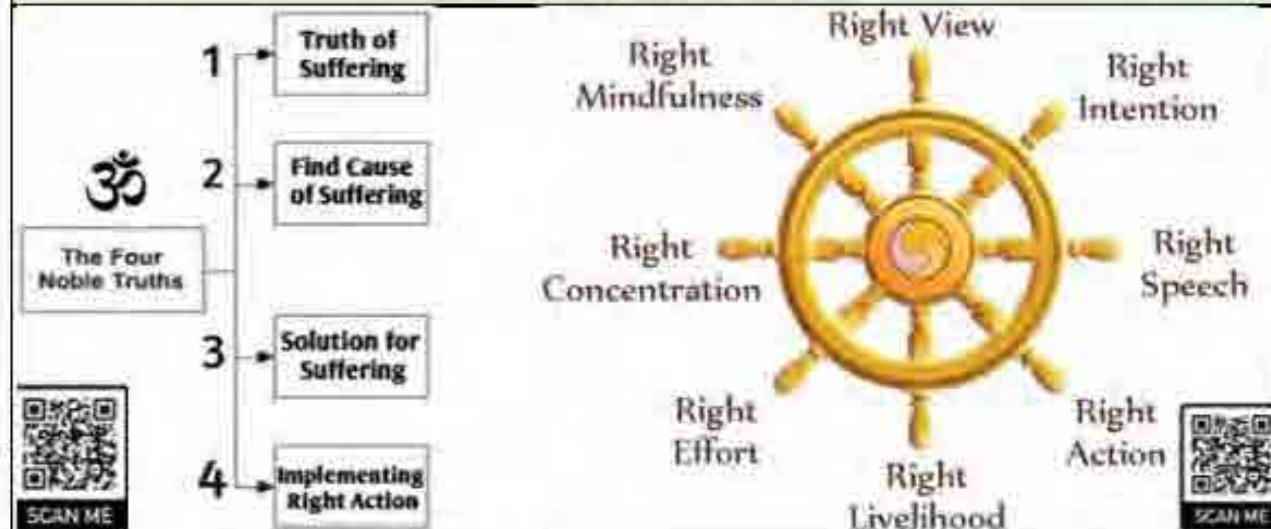
The holy book in Buddhism is called **Tipitaka**. **Buddhist Temples** are buildings designed for Buddhist worship.

Image of the Buddha, known in life as Siddhartha Gautama, whose teachings founded Buddhism.



Buddhist beliefs:

The Buddhist teachings are known as Dharma. They include the Four Noble Truths and the Eightfold-Path. Buddhism's Noble Truths are:



Top 10 Facts!

1. Buddhists don't believe in a God who made the world and everything in it.
2. Siddhartha's family was Hindu.
3. The lotus flower is an important symbol in Buddhism. It is a symbol of enlightenment.
4. The name 'Buddha' means 'the enlightened one' or 'the one who knows.'
5. Some Buddhists have shrines at home where they are able to worship.
6. The teachings of Siddhartha Gautama were not written down until about 400 years after his death.
7. Siddhartha Gautama died around age 80.
8. 'Puja' is the name for worship in Buddhism. People often light candles as they worship.
9. In images of Buddha, faces are always made to look calm and serene, to show that he has a peaceful mind.
10. Wesak is an important festival in Buddhism.



What do the Dharmic faiths believe?

**Sikhism Knowledge
Organiser**



RS

NEED TO KNOW WORDS

Caste System	A class structure that is determined by birth
Guru	Teacher
Guru Granth Sahib	Holy book of sikhism
Guru Nanak	The founder of sikhism
Hukam	Meaning the will or command of god
Kirat Karni:	Meaning to work honestly, live honestly, and practice honesty
Naam Japna	Meditating on god's name
Sikhism	A religion based on belief in a single god and on the teachings of guru nanak
Three foundations of Sikhism	Duties which all sikhs must carry out
Vand Chakna	Means to share the fruits of one's labour with others
Waheguru	Used in sikhism to refer to god

Sikh nature of God.

Sikhs have many words to describe God. The name most widely used for God by Sikhs is Waheguru, which means 'wondrous enlightener'. Sikhs believe that there is only one God, who created everything.

Sikhs believe that Waheguru is:

The creator - The act of creating everything was God's will (Hukam).
Ineffable - Waheguru's essence cannot be adequately described in words.
Genderless - Waheguru is neither male nor female.
Eternal - Waheguru is outside time and space and beyond the cycle of birth and death.

Who was Guru Nanak?

Guru Nanak founded Sikhism. He was born to a Hindu family over 500 years ago in the Punjab (an area that is now in Pakistan, but at the time, it was part of India).

Throughout his life, Guru Nanak experienced key events that led him to:

- reject the caste system within Hinduism
- teach that everybody is equal through the belief in the oneness of humanity
- teach the three foundations of Sikhism.

Guru Granth Sahib

The Guru Granth Sahib is a holy book of Sikhism. It's a collection of songs, poems, and prayers written by different Sikh gurus and other holy people. The book was edited by the fifth Sikh guru, Guru Arjan Dev. Sikhs believe that the book is the eternal living guru of the Sikhs. The Guru Granth Sahib has writings in different languages, such as Punjabi, Sanskrit, and Persian. The book teaches that there is only one God, and it's important to live a good life by doing good things.

The three foundations of Sikhism

Naam Japna: Meditate on God	Sikhs must keep God in their mind at all times. As well as prayer and meditation, Sikhs will also practise chanting and singing of God's name – Waheguru.
Kirat Karni: Live honourably	All Sikhs must seek to live honestly and to have high moral values. This doesn't just mean avoiding crime. Sikhs also avoid gambling or working in immoral industries.
Vand Chakna: Share and give	Sikhs must commit to giving to charity and caring for others.





What do the Dharmic faiths believe?

Hinduism Knowledge Organiser



NEED TO KNOW WORDS	
Polytheist	Belief in many gods
Monotheist	Belief in one god
Deities	Gods
Brahman	Supreme god in Hinduism
Dharma	duty – fulfilling these duties are the first step towards breaking the samsara cycle.
Reincarnation	being 'reborn'
Moksha	The spiritual aim for Hindus is to achieve freedom from the samsara cycle
Mandir	Community temple
Karma	The belief that actions have consequences
Samsara	The cycle of birth and rebirth.
Trimurti	— 3 main aspects of Brahman (Brahma / Vishnu / Shiva)

Hinduism overview:

Hinduism is over 4,000 years old, making it one of the world's oldest religions. It is made up of a variety of different religious beliefs and practices. It originated near the Indus River in India. The name 'Hindu' comes from the word Indus

Hindu nature of God.

Hindus believe in one God (Brahman) and they believe he comes in many forms. Hindus believe that there are three gods called the Trimurti who display the 3 aspects of the universal supreme God, Brahman.

Where do Hindus worship?

Hindus worship in a temple called a Mandir. Mandirs vary in size from small village shrines to large buildings, surrounded by walls.

People can also visit the Mandir at any time to pray and participate in the bhajans (religious songs).

Hindus also worship at home and often have a special room with a shrine to particular gods.

Hindu belief in The Trimurti:

Brahman takes many forms. Especially three forms called the Trimurti:

Brahma	is the creator of the world and all creatures. He is usually shown with four heads.
Vishnu	is the preserver of the world. His role is to return to the earth in troubled times and restore the balance of good and evil. He has blue skin and four arms.
Shiva	is the destroyer of the universe. Shiva destroys the universe in order to re-create it. Shiva has blue skin, a third eye and carries a trident.

What are Hinduism's holy books?

Hinduism does not have a single holy book, but many ancient texts and scriptures.

The Vedas - a collection of hymns praising the Vedic gods. Veda means 'knowledge'.

The Ramayana - long epic poems about Rama and Sita.

The Mahabharata - which includes the Bhagavad Gita.

The Puranas - a collection of stories about the different incarnations and the lives of saints..



1. Safety



Irritant



Corrosive

- When handling acids and alkalis in the lab we need to take safety precautions, for example wearing goggles.
- Concentrated Acid is corrosive, and will destroy skin cells.
- Dilute acids have lots of water added, they are an irritant and cause redness or blistering of the skin.

4. pH Scale

- The pH scale measures the strength of acids and alkalis, it runs from 0-14
- neutral solutions are pH 7 exactly
- acidic solutions have pH values less than 7
- alkaline solutions have pH values more than 7
- the closer to pH 0 you go, the more strongly acidic a solution is
- the closer to pH 14 you go, the more strongly alkaline a solution is



2. Acids (pH 1-6)



- Acids** are a family of chemicals, examples are lemon juice, vinegar, and Coca Cola. There is also acid in our stomach.
- Acids contain Hydrogen (H^+) ions.
- Strong acids** like hydrochloric acid are very corrosive this means they destroy skin cells and cause burns.
- Weak acids** like vinegar are safe to eat but are still irritant to sensitive parts of the body.

KS3 Science Acids & Alkalis

5. pH Indicators

- Indicators** are chemicals that show whether a substance is an **acid** or an **alkali**
- There are many different indicators, for example **litmus paper** and **universal indicator**
- There are also natural indicators such as **red cabbage**



3. Alkalis (pH 8-14)

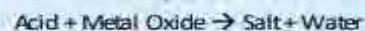


- Alkalis are a family of chemicals that have a soapy feel, they are also corrosive, examples of these are toothpaste, soap and oven cleaner.
- Alkalis contain Hydroxide (OH^-) ions.
- Alkalis are bases that dissolve in water. Therefore not all bases are alkalis.

6. Neutralisation

- A chemical reaction happens if you mix together an acid and a base. The reaction is called **neutralisation**. A neutral solution is made if you add just the right amount of acid and base together.
- Neutralisation reactions form **salts** the name of the salt depends on the name of the acid, and the metal in the base
- Hydrochloric acid makes "**chlorides**", Nitric acid make "**nitrates**", Sulphuric acid makes "**sulphates**"

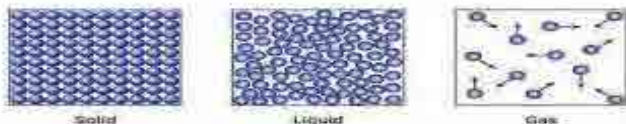
General equations for neutralisation reactions:



Farmers use lime (calcium oxide) to neutralise acid soils. Your stomach contains hydrochloric acid, too much of this causes indigestion. Antacid tablets contain bases to neutralise the extra acid. Wasp stings are alkaline, they can be neutralised using vinegar.

1. Particle Theory

All matter is made up of particles.



- Solids - arranged in a regular pattern and can only vibrate in a fixed position.
- Liquids - arranged randomly but are still touching each other, can move.
- Gases, particles are far apart and are arranged randomly.

2. Physical Changes

In a physical change, the matter's physical appearance is changed, but no chemical bonds are broken or formed. For example, when water is heated from liquid water to gaseous steam, only the appearance of water is changed - both steam and liquid water have the chemical formula H_2O .



3. Chemical Changes

- Chemical reactions create **new** substances.
- Chemical reactions can also be used to **transfer energy** by burning fuels.
- In a chemical reaction the atoms **rearrange** themselves and then **join back together** in a different way.



4. Conservation of Mass

The Law of Conservation of Mass states that mass cannot be created or destroyed. Therefore, mass stays the same before and after a change of state. For example, 10g of ice melts into 10g of water and 10g of water evaporates into 10g of water vapour. The same applies to other substances.



6. Diffusion

Diffusion is the movement of particles from a higher concentration to a lower concentration.

Diffusion will stop when particles spread themselves evenly. Diffusion occurs in liquids and gases but not in solids, because particles in a solid are not free to move.

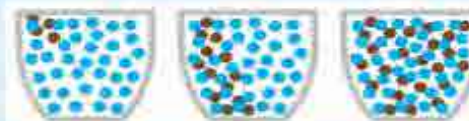


Diffusion

7. Factors affecting Diffusion

There are 2 factors affecting the rate of diffusion:

- Temperature: When temperature increases, particles gain more energy. They can then move and spread out at a higher rate.
- Concentration: When concentration increases, the rate of diffusion increases because there is a steeper concentration gradient.



KS3 Science Physical and Chemical Changes

5. Conservation of mass in chemical change

No **atoms** are created or destroyed in a chemical reaction. Instead, they just join together in a different way than they were before the reaction, and form **products**. This means that the total **mass** of the products in a chemical reaction will be the same as the total mass of the **reactants**.



8. Brownian Motion



Particles in fluids (liquids and gases) move randomly. This is called Brownian motion. They do this because they are bombarded by the other moving particles in the fluid. Larger particles can be moved by light, fast-moving molecules.

Brownian motion is named after the **botanist Robert Brown**, who first observed this in 1827. He used a microscope to look at pollen grains moving randomly in water. At this point, he could not explain why this occurred.

1. Magnetic Materials

Most materials are not **magnetic**, but some are. A magnetic material can be magnetised or will be attracted to a magnet. These metals are magnetic:

- Iron
- Cobalt
- nickel

Steel is mostly iron, so steel is magnetic too.

26	27	28
Fe	Co	Ni
Iron	Cobalt	Nickel

2. Permanent magnets

A bar magnet is a **permanent magnet**. This means that its magnetism is there all the time and cannot be turned on or off. A bar magnet has two magnetic poles:

- **north pole** (or north-seeking pole)
- **south pole** (or south-seeking pole)



3. Attract or repel?

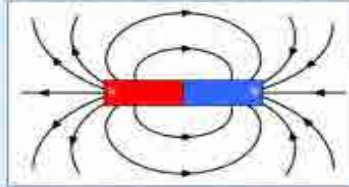
Magnets have two poles, a North pole (N) and a South pole (S).

- **opposite poles attract** (N and S)
- **like poles repel** (N and N, OR S and S)

How can you test if a piece of metal is actually a magnet? Seeing if it sticks to a magnet is not a good test, because unmagnetised iron, steel, cobalt and nickel objects will also do this. So you can only show that an object is a magnet if it **repels a known magnet**.

4. Magnetic fields

A magnet creates a **magnetic field** around it. You cannot see a magnetic field, but you can observe its effects. A force is exerted on a magnetic material brought into a magnetic field. The force is a **non-contact force** because the magnet and the material do not have to touch each other.



KS3 Science Magnetism

6. The Earth's Magnetic Field

The Earth behaves as if it contains a giant magnet. It produces a magnetic field in which the field lines are most concentrated at the poles. This magnetic field can be detected using magnetic materials or magnets.



7. Navigating with a compass

A compass comprises:

- a magnetic needle mounted on a pivot (so it can turn freely)
- a dial to show the direction



The north pole (north-seeking pole) of the compass needle points towards the Earth's north pole. If the needle points to the N on the dial, you know that the compass is pointing north. This lets you navigate outdoors using a map.

5. More Magnetic Fields

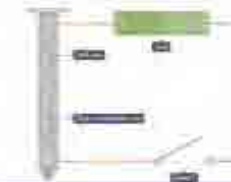
Although we cannot see magnetic fields, we can detect them using iron filings and plot them with a plotting compass.

- field lines point from north to south pole
- field lines are more concentrated at the poles.
- The magnetic field is strongest at the poles, where the field lines are most concentrated.



8. Electromagnets – extra content

When an electric current flows in a wire, it creates a magnetic field around the wire. This effect can be used to make an **electromagnet**. A simple electromagnet comprises a length of wire turned into a coil and connected to a battery or power supply.

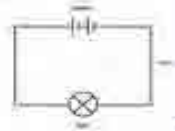


1. Electric current

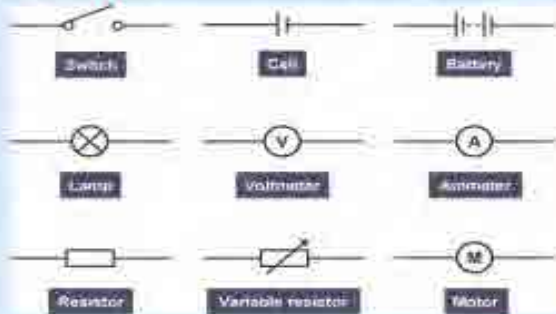
An **electric current** is a flow of charge, and in a wire this will be a flow of electrons. We need two things for an electric current to flow:

- something to transfer energy to the electrons, such as a battery or power pack
- a complete path for the electrons to flow

To do something useful with the electric current, you need to put an electrical component into the circuit (such as a lamp), that can use the current in a useful way



2. Circuit symbols



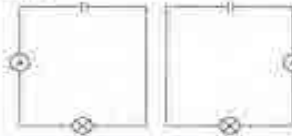
3. Current

Current is a measure of how much electric charge flows through a circuit. The more charge that flows, the bigger the current.

Current is measured in amperes (amps), the symbol is A.

To measure the current flowing through a component in a circuit, you must connect the ammeter **in series** with it.

Current is not used up in a circuit



4. Potential difference

Potential difference is a measure of the difference in energy between two parts of a circuit. The bigger the difference in energy, the bigger the potential difference. Potential difference is measured in **volts**, the symbol is V. Potential difference is measured using a device called a **voltmeter**, unlike an ammeter, you must connect the voltmeter **in parallel** to measure the potential difference across a component in a circuit.

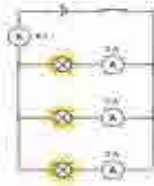


6. Parallel Circuits

Components in parallel circuits are connected on different branches of the circuit.

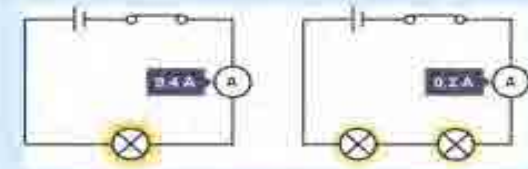
If one component connected in parallel fails, the other components are not affected. Current is shared between the components in a parallel circuit.

Parallel circuits are useful if you want to switch components on and off independently, our homes are wired this way.



7. Resistance

The wires and the other components in a circuit reduces the flow of charge through them. This is called resistance. The unit of **resistance** is the **ohm**, and it has the symbol Ω . Resistance increases if you add more components to a circuit.

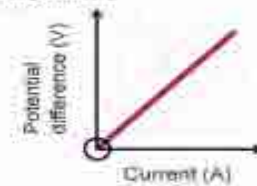


8. Calculating resistance

The equation for calculating resistance is:

Resistance = current x potential difference

If you plot a graph of current against potential difference for a wire, you get a straight line.



KS3 Science Electricity and Circuits



7.4 Spanish Free Time Knowledge Organiser

Sports and other hobbies with opinions + inf. including. jugar and hacer
Weather.

Llevar, vivir & comer are a regular verbs which follow the pattern below. The verbs “jugar” and “hacer” are irregular but important verbs, especially for this topic on sports.

Pronouns	Estudiar – to study	vivir– to live	comer– to eat	Hacer– to do Yo hago – I do Tu haces – you do Él/ella hace – he/she does Nosotros hacemos –we do Vosotros hacéis – you (pl) do Ellos hacen – they do
Yo (I)	Estudio – I study	Vivo – I live	Como – I eat	Jugar– to play Yo juego- I play Tu juegas – you play Él/ella juega – he/she plays Nosotros jugamos –we play Vosotros jugáis – you (pl) play Ellos/ellas juegan – they play Now you should be able to create some of your own questions using the question words below. Don't forget the upside down question mark at the beginning of a question.
tú (you)	Estudias – you study	Vives – you live	Comes – you eat	
el (he), ella (she),	Estudia - He/she studies	Vive - He/she lives	Come – he/she eats	
nosotros (we)	Estudiamos – we study	Vivimos – we live	Comemos – we eat	
vosotros (you) (pl. or formal)	Estudiáis – you study (pl. or formal)	Vivís – you live (pl. or formal)	Coméis – you eat (pl. or formal)	
Ellos/ellas (they)	Estudian – they study	Viven – they live	Comen – they eat	

How to improve your writing?

When writing in Spanish, you can make your sentences better by adding the following:

- Range of opinions and reasons
- Connectives to extend your sentences
- Qualifiers e.g. muy, bastante
- Comparisons
- Rather than just using 'yo', write verbs using other pronouns

¿Cuándo? – When?
 ¿Quién? – Who?
 ¿Dónde? – Where?
 ¿Cuántos? – How many?
 ¿Qué? What?
 ¿Cómo? – How?
 ¿Por qué? – Why?
 ¿Cuál? – Which?

¿Qué te gusta hacer?	What do you like to do?
Ver la televisión	To watch TV
Escuchar música	To listen to music
Ir al cine	To go to the cinema
Leer un libro	To read a book
Ir de compras	To go shopping
Ir al parque	To go to the park
Ir al gimnasio	To go to the gym
Ir al polideportivo	To go to the sports centre
Salir con mis amigos	To go out with my friends
Tocar el piano	To play the piano
Visitar mi familia	To visit family
Ir al centro	To go to town
Hacer la cocina	To cook
Cantar	To sing
Nadar	To swim
Hacer mis deberes	To do my homework
Descargar música	To download music
Navegar por Internet	To surf the Internet
Jugar a los videojuegos	To play video games
Chatear con mis amigos	To chat with my friends
Sacar fotos	To take photos
Ver los videos divertidos	To watch funny videos
Mandar mensajes	To send texts
Comprar en línea	To buy online
Ver los videos de youtube	To watch Youtube videos
Escribir un correo electrónico	To write an email
Usar mi móvil	To use my mobile phone

7.4 Free time SPANISH



Cabot
Learning
Federation



¿Qué deporte te gusta?	What sport do you like?
Jugar al fútbol	To play football
Jugar al rugby	To play rugby
Jugar al tenis	To play tennis
Jugar al golf	To play golf
Jugar al voleibol	To play volleyball
Jugar al baloncesto	To play basketball
Hacer ciclismo	To do some cycling
Hacer esquí	To do some skiing
Hacer patinaje	To do some ice skating
Hacer natación	To do some swimming
Hacer gimnasia	To do some gymnastics
Hacer equitación	To do some horse-riding
Hacer atletismo	To do some athletics

¿Qué te gusta ver?	What do you like to watch?
Me gusta ver	I like to watch
Las noticias	The news
Comedias	Comedies
Dibujos animados	Cartoons
Documentales	Documentaries
Programas	Programmes
Telenovelas	Soap operas
Películas románticas	Romantic films
Películas de acción	Action films
Películas de terror	Horror films
Películas policíacas	Detective films
Concursos	Game shows
Series	Series

¿Cuándo?	When?
Normalmente	Normally
Generalmente	Generally
Todos los días	Every day
Dos veces a la semana	Twice a week
De vez en cuando	From time to time
Rara vez	Rarely
Cuando puedo	When I can
Jamás/nunca	Never
A veces	Sometimes

¿Qué tiempo hace?	What is the weather like?
Hace buen tiempo	It is good weather
Hace calor	It is hot
Hace sol	It is sunny
Hace frío	It is cold
Hace 25 grados	It is 25 degrees
Hace mal tiempo	It is bad weather
Llueve	It is raining
Nieva	It is snowing
Hay viento	It is windy
Hay nubes	There are clouds
Hay tormenta	There are storms

The Six R's



RETHINK REFUSE REPAIR



REDUCE REUSE RECYCLE

Natural Fibres- These come from plants or animals. Examples include Wool, Cotton.

Synthetic Fibres- These come from chemical substances. Examples include Polyester, Lycra

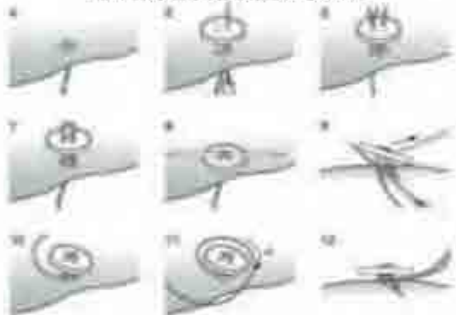
Year 7 Textiles Knowledge Organiser



Health & Safety rules

1. Bags must be kept in the cubes
2. Do not run
3. Hair must be tied back
4. Only one person to use a sewing machine at a time
5. Chairs must be tucked in and sat on correctly
6. Always listen to the teacher and follow instructions
7. No food or drink in the textiles room
8. Use all equipment respectfully and as you have been shown how to

Pictorial Instructions- how to sew on a button (practice and take photos)



Equipment	Use
Bobbin 	A bobbin is a cylinder, to which cotton thread is wrapped around. It is found in the bottom part of a sewing machine, which is called the bobbin holder.
Thread 	Cotton thread is used to attach fabric together by using a sewing machine or a hand needle. It is positioned on the thread spool when being used on a sewing machine.
Fabric scissors 	Fabric scissors are used to cut fabric ONLY! They should not be used to cut paper.
Pins 	Pins are used to position and secure fabric in to place before sewing fabric together.
Measuring Tape 	It is a flexible ruler that can be used for body measurements, tailoring and dressmaking. It is flexible to measure fabric and curves of the body.

Textiles Hierarchy of Key words

Academic keywords: Tier 3	analyse	Plain seam
	embellishment	sustainable
	Woven/ bonded/ knitted	
Valuable keywords used in most lessons every lesson. Tier 2	Free machine embroidery	function develop
	Complementary colours	
	contrast environment fastening	
Basic keywords used in almost every lesson. Tier 1	compare embroidery equipment	
	context iron	appliqué
	effect improve	
	colour design shape	
	pattern machine	Texture
	theme line tone	
	thread Fabric	sew


Use these in your writing and speaking

Use connectives to link each paragraph!	Explain an idea: <ul style="list-style-type: none">AlthoughExceptUnlessHoweverTherefore	Sequencing: <ul style="list-style-type: none">FirstlySecondlyNextFinallySince
Adding to: <ul style="list-style-type: none">FurthermoreAlsoAs well asMoreover	Cause and effect: <ul style="list-style-type: none">ThusSoThereforeConsequently	Contrasting: <ul style="list-style-type: none">WhereasInstead ofAlternativelyOtherwiseThen again
To empathise: <ul style="list-style-type: none">Above allUltimatelyEspeciallySignificantly	To compare: <ul style="list-style-type: none">LikewiseEquallyIn the same waySimilarly	Give examples: <ul style="list-style-type: none">Such asFor exampleIn the case ofAs revealed byFor instance

Sentence starter phrases


Most people would agree...
Only a fool would think...
We all know...
A sensible idea would be...
The fact is that...
Surely you would agree that...
Without a doubt...
I am certain that...
Some people might argue...
However...
Also...

DESCRIBE




I believe that...
I think that...
The main idea is...

EXPLAIN




This means that...
Therefore...
This maybe because...

JUSTIFY




This is positive because...
This is negative because...
It is useful/not useful because...

ANALYSE




One strength is...
One weakness is...
One argument is...

EVALUATE

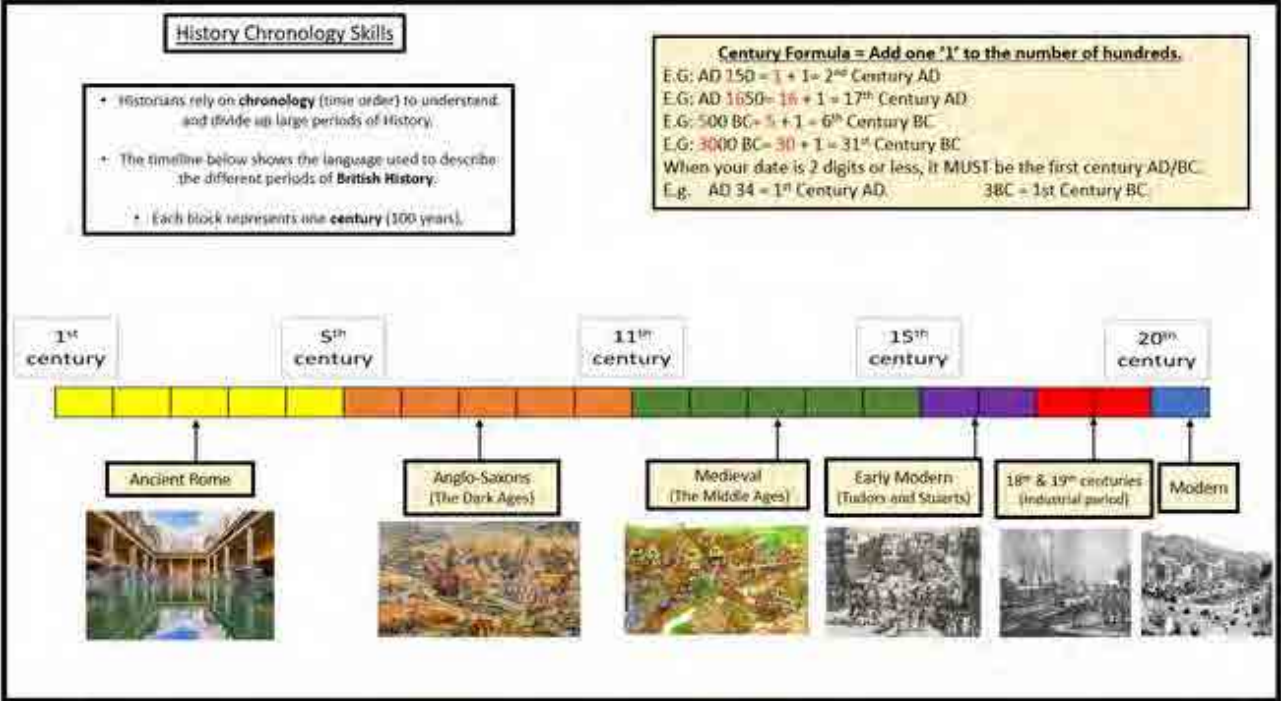


One advantage is...
One disadvantage is...
The best option is...

COMPARE AND CONTRAST



One similarity is...
One difference is...
On the other hand...

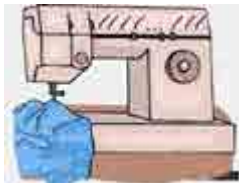


Use these in your writing and speaking in DT



Design and Technology Keywords

Food and Nutrition	Design and Technology	Textiles
Caramelisation	Carbon footprint	Plain seam
Aeration Amino acids	Planned Obsolescence	analyse sustainable
Plasticity Shortening	Iterative Design Tolerance	embellishment
Denaturation	Technology Push	Woven/ bonded/ knitted
Coagulation	Anthropometrics	Free machine function
Gelatinisation	Consumer Social Footprint	embroidery develop
Emulsification	Ergonomics Forming Processes	
Pasteurisation		
Unsaturated Protein	Aesthetics Target Market	Complementary colours
Radiation Saturated	Properties Deciduous	contrast environment
Carbohydrates	Automation Coniferous	fastening
Conduction	Functionality	compare embroidery
Deficiency	Primary Source Sustainability	iron equipment
Digest	Continuous Improvement	context appliqué
Convection		effect improve
Cross-contamination		
Micro-organisms		
Flavour Claw grip	Cost Customer	colour design shape
Texture Aroma	Materials Annotation	machine
Nutrients	Product	pattern line Texture
Energy	Safety Environment	theme tone
Appearance Bridge hold	Design	Fabric
Mix	User Prototype	thread sew
Smell		



Sentence Starters - DT

I have designed...because
My project was about...
I found... during my research
My design is suitable for...
I have learnt how to...
The most enjoyable part of my project was....
The area I found the most challenging was...
Equipment I have used include...
I would improve my work by...
I am pleased with my finished product because...



Sentence Starters- Food and Nutrition

In order to work hygienically/safely I made sure I
I worked safely when in the kitchen by...
If I could improve any skill, I would improve...because...
Overall, I am happy/unhappy with my progress/dish because....
The texture of my dish is... this is because...

Sentence starters- Textiles

I have designed....
The context of my design is...
My research is useful because...
By researching, I am able to.....
By researching I have found out....
I researched into....
My design is suitable for.....
My design is based upon...
I have planned to..
The order I will work in is...
The most enjoyable part of m project was...
The area I found most challenging was...
I am most pleased with...
I am pleased with my finished project because...
Equipment I used was...

The periodic table of the elements

1	2											3	4	5	6	7	0						
<div><div><div>1 H hydrogen 1</div></div><div><div>Key</div><div>relative atomic mass atomic symbol name atomic (proton) number</div></div></div>																	<div><div><div>11 B boron 5</div></div><div><div>12 C carbon 6</div></div><div><div>14 N nitrogen 7</div></div><div><div>16 O oxygen 8</div></div><div><div>19 F fluorine 9</div></div><div><div>20 Ne neon 10</div></div></div>						4 He helium 2
<div><div>7 Li lithium 3</div></div>	<div><div>9 Be beryllium 4</div></div>											<div><div>27 Al aluminium 13</div></div>	<div><div>28 Si silicon 14</div></div>	<div><div>31 P phosphorus 15</div></div>	<div><div>32 S sulfur 16</div></div>	<div><div>35.5 Cl chlorine 17</div></div>	<div><div>40 Ar argon 18</div></div>						
<div><div>39 K potassium 19</div></div>	<div><div>40 Ca calcium 20</div></div>	<div><div>45 Sc scandium 21</div></div>	<div><div>48 Ti titanium 22</div></div>	<div><div>51 V vanadium 23</div></div>	<div><div>52 Cr chromium 24</div></div>	<div><div>55 Mn manganese 25</div></div>	<div><div>56 Fe iron 26</div></div>	<div><div>59 Co cobalt 27</div></div>	<div><div>59 Ni nickel 28</div></div>	<div><div>63.5 Cu copper 29</div></div>	<div><div>65 Zn zinc 30</div></div>	<div><div>70 Ga gallium 31</div></div>	<div><div>73 Ge germanium 32</div></div>	<div><div>75 As arsenic 33</div></div>	<div><div>79 Se selenium 34</div></div>	<div><div>80 Br bromine 35</div></div>	<div><div>84 Kr krypton 36</div></div>						
<div><div>85 Rb rubidium 37</div></div>	<div><div>88 Sr strontium 38</div></div>	<div><div>89 Y yttrium 39</div></div>	<div><div>91 Zr zirconium 40</div></div>	<div><div>93 Nb niobium 41</div></div>	<div><div>96 Mo molybdenum 42</div></div>	<div><div>[98] Tc technetium 43</div></div>	<div><div>101 Ru ruthenium 44</div></div>	<div><div>103 Rh rhodium 45</div></div>	<div><div>106 Pd palladium 46</div></div>	<div><div>108 Ag silver 47</div></div>	<div><div>112 Cd cadmium 48</div></div>	<div><div>115 In indium 49</div></div>	<div><div>119 Sn tin 50</div></div>	<div><div>122 Sb antimony 51</div></div>	<div><div>128 Te tellurium 52</div></div>	<div><div>127 I iodine 53</div></div>	<div><div>131 Xe xenon 54</div></div>						
<div><div>133 Cs caesium 55</div></div>	<div><div>137 Ba barium 56</div></div>	<div><div>139 La* lanthanum 57</div></div>	<div><div>178 Hf hafnium 72</div></div>	<div><div>181 Ta tantalum 73</div></div>	<div><div>184 W tungsten 74</div></div>	<div><div>186 Re rhenium 75</div></div>	<div><div>190 Os osmium 76</div></div>	<div><div>192 Ir iridium 77</div></div>	<div><div>195 Pt platinum 78</div></div>	<div><div>197 Au gold 79</div></div>	<div><div>201 Hg mercury 80</div></div>	<div><div>204 Tl thallium 81</div></div>	<div><div>207 Pb lead 82</div></div>	<div><div>209 Bi bismuth 83</div></div>	<div><div>[209] Po polonium 84</div></div>	<div><div>[210] At astatine 85</div></div>	<div><div>[222] Rn radon 86</div></div>						

* The elements with atomic numbers from 58 to 71 are omitted from this part of the periodic table.

The relative atomic masses of copper and chlorine have not been rounded to the nearest whole number.





Subject websites

These websites will help you with homework, reading around the subject and revision

English

<https://www.sparknotes.com/> - *Macbeth, A Christmas Carol, An Inspector Calls*

<https://app.senecalearning.com/> - *Macbeth, A Christmas Carol, An Inspector Calls, Power and Conflict Poetry*

<https://www.bbc.com/bitesize> - *Macbeth, A Christmas Carol, An Inspector Calls*

Maths

<https://corbettmaths.com/>

<https://vle.mathswatch.co.uk/vle/>

<https://www.mathspad.co.uk/>

Science:

<https://www.bbc.com/bitesize>

<https://www.senecalearning.com/>

<https://www.memrise.com/>

Geography

Time for Geography - videos (mainly focused on physical processes)

Bitesize

Cool Geography

History

Seneca Learning

BBC bitesize - use Edexcel resources for GCSE.

Art Websites

<https://www.tate.org.uk/>

<https://www.bbc.co.uk/bitesize/subjects/z6f3cdm>

<https://www.incredibleart.org/>

Computer Science and IT.

www.mrahmedcomputing.co.uk

Drama

<https://youtu.be/VeTpob9LBM8>

<https://youtu.be/wISEU13mRBE>

<https://www.bbc.co.uk/bitesize/guides/zsf8wmn/revision/1>

DT:

<http://www.mr-dt.com/>

<http://technologystudent.com/>

<https://www.senecalearning.com/>

PE

<https://www.bbc.com/bitesize/examspecs/ztrcg82>

<https://sites.google.com/view/ocrgcseperevision/home>

RS

KS3 <https://www.bbc.co.uk/bitesize/subjects/zh3rkqt>

Timetable

	Monday	Tuesday	Wednesday	Thursday	Friday
Tutor time					
Lesson 1					
Lesson 2					
Break					
Lesson 3					
Lesson 4					
Lunch					
Lesson 5					
Lesson 6					