



**BRISTOL
METROPOLITAN
ACADEMY**

Monday 3rd June	Week A
Monday 10th June	Week B
Monday 17th June	Week A
Monday 24th June	Week B
Monday 1st July	Week A
Monday 8th July	Week B

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 2023-24 Year 9 – Term 6

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

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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 1 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	Same process as outlined for English above. DT have 5 questions and not 10.
ICT	For term 1, continue to use the KO to do revision/key words etc in your homework books.
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.

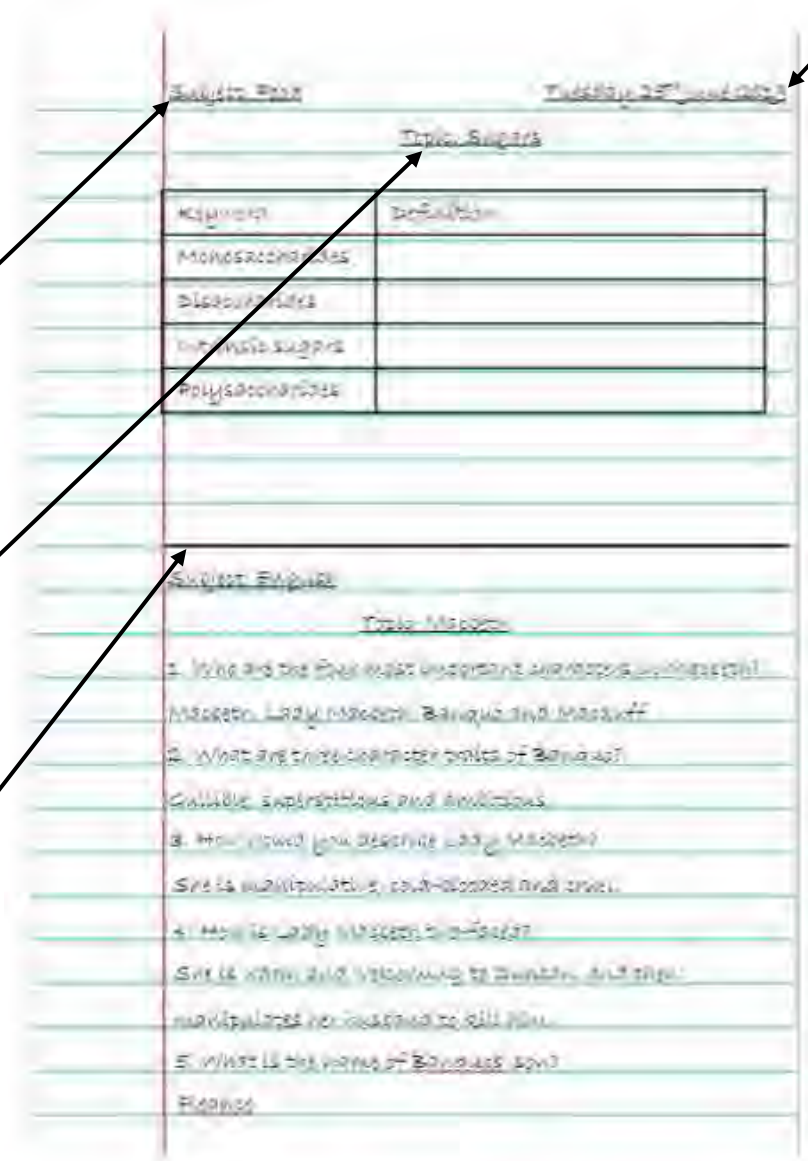
How to present your homework:

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.

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



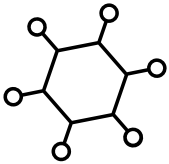
Home Learning Strategies to help you revise

Brain Dump



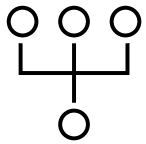
Write down everything you know about a certain topic on a page. Use your KO to add extra notes in a different colour.

Mind Map



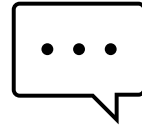
Condense a topic showing the important links and connectors between key parts. Use your KO to add in extra notes.

Diagram



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

Vocabulary



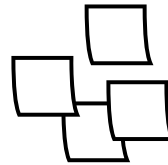
Learn the key words associated with a topic and commit the word and spelling to memory. Test yourself or ask someone else to test you.

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?

PROGRAMMING TECHNIQUES

DATA TYPES

Data Type	Definition
String	Text eg: "Hello"
Integer	Whole number eg: 52
Float/Real	Decimal number eg: 1.2
Boolean	Two values eg: true or false
Character	A single character eg: b

Casting is when you want to change between data types. Eg - if you want to use an integer in a sentence you would need to convert it to a string

VARIABLES AND CONSTANTS

Variable - A value which may change while the program is running. Variables can be local or global.

local variable - a variable which can only be used within the structure they are declared in.

Global Variable - a variable which can be used in any part of the code after they are declared.

Constant - A value which cannot be altered as the program is running.

OPERATORS

Operator/Function	Definition
Exponentiation	Raises a number to a power eg: 2**3 OR 2 * 3 (~27)
Quotient/DIV	Gives the whole number after a division
Remainder/MOD	Gives the remainder part of a division
=	is equal to
!= or <>	is not equal to
<	is less than
>	is more than
>=	is more than or equal to
<=	is less than or equal to

FILE HANDLING

Myfile=openRead("myfile.txt")	Opens the file in read mode
Myfile=openWrite("myfile.txt")	Opens the file in write mode
Myfile.writeLine("Hello")	writes a line to the file
Line=Myfile.readLine()	Reads one line of the file
Myfile.close()	Closes the file
endOfFile()	Used to determine the end of a file

PROGRAMMING CONSTRUCTS

Sequence - A sequence is when there are programming steps that are carried out one after another.

Selection is where there are different paths in your code eg: IF, ELIF, ELSE

Iteration is when there is repetition (loops) in code. This could be a WHILE loop (do something WHILE a condition is met) or a FOR loop (do something for a set number of times)

This count-controlled loop would print "Hello World" 8 times :

```
for i=0 to 7
  print ("Hello")
next i
```

These condition controlled loops would check if a password's correct:

```
while answer != "letmein123"
  answer=input("Enter password")
endwhile
```

```
do
  answer=input("Enter password")
until answer="letmein123"
```

STRING MANIPULATION

0 1 2 3 The characters in a string are numbered starting with position 0.

M o r d

Function	Purpose
x.length	Gives the length of the string
x.upper	Changes the characters in the string to upper case
x.lower	Changes the characters in the string to lower case
x[i]	Gives the character in position i. Eg: x[2] = "r"
x.substring(a,b)	Gives the characters from position a with length b. Eg: x.substring(1,2) = "or"
+	Joins (concatenates) two strings together



Specials

Specials... Property or props onto the stage



Back lit spotlight - creates a silhouette effect



Cyclorama - a large curved backdrop that can be lit to create a sky or background effect



LIGHTING

Washes

A General Wash



Blackout



Adding Colour

1. Select the area you want to add colour to
 2. Press the 'Colour' button
 3. Use the 'Colour' wheel to select the colour you want to add

Creating a Mood

Blue



Lighting with a Gauze

Year 9 Drama

A Gauze (UK) or Scrim (USA) is a coarsely woven cloth which can appear transparent or solid depending on how it's lit.

Back Lit



Top Lit



EXAMPLE SENTENCE STARTERS USED IN KITCHEN KNIFE SCENE

- o At the start of the scene I will have this type lighting in the colour of
- o As the tension begins to rise I the lighting will
- o As Mrs Lyons turns and sees the kitchen knife on the side the lighting will.....
- o As Mrs Lyons grabs the knife and holds it up in the air the lighting will.....
- o As the two women struggle the lighting will
- o As Mrs Johnstone manages to snatch the knife from Mrs Lyons the lighting will.....
- o At Mrs Johnstone screams 'Go!' the lighting will
- o When the kids chanting can be heard the lighting will.....



Select one symbol from the selection above.

Create a logo for a product/company of your choice using your chosen symbol.

You can achieve this by modifying your chosen symbol by applying a range of composition techniques to develop its shape, form, and visual appeal. Be as creative as possible.

Logo design principles

1. Simple - needs to be easily identifiable at a glance.
2. Memorable - should be easily recalled after just one look.
3. Original - Create a unique design that cannot be confused with another.
4. Timeless - should be modern yet timeless and should avoid trends.
5. Versatile - can be used in a variety of sizes and colours.
6. Appropriate - should be appropriate for the intended audience.

Keywords

- Malleable** - able to be hammered or pressed into shape without breaking.
- Innovative** - new and original.
- Analysis** - detailed examination of the something.
- Annotation** - analysis added to a text or diagram.
- Alloy** - a metal made by combining two or more metallic elements.

What is Pewter?

Pewter is a malleable metal alloy consisting of tin, antimony, copper, bismuth, and sometimes silver. Modern pewter consists of are 94% tin.

Pewter has a low melting point (around 170-230 °C) making it ideal for melting on a chip forge and brazing hearth and casting.

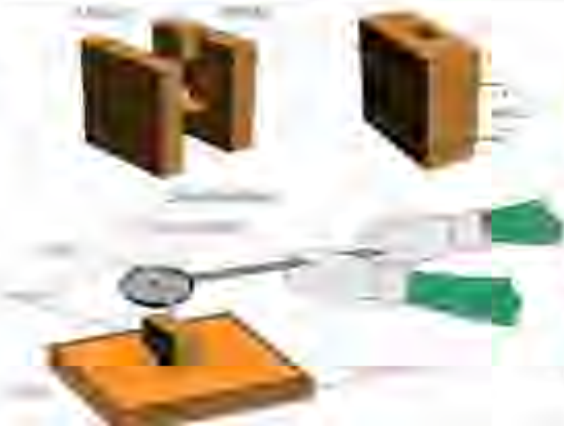
2D Design Basic Tools

- SELECT** - Use this tool to select different or frame objects.
- LINE** - This tool creates straight lines. Click to start the line, determine the length and end point then click.
- CIRCLE** - This tool creates circles. Click to set the circle, extend to the size needed and click to finish.
- SMTH** - This tool creates smooth lines through control points.
- RECTANGLE** - This tool can be used to create both horizontal and vertical shapes.
- TEXT** - Use this tool to insert text into a page design. The font, size and position of the text can be changed.
- DELETE PART** - Use this tool to delete separate elements of an object.
- DELETE ALL** - Use this tool to delete all elements of an object.

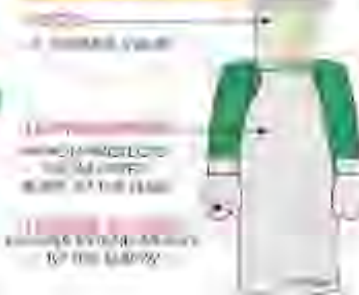


CAD/CAM

Computer Aided Design (CAD) is the use of computers to create and modify designs. CAD software allows designers to create 2D and 3D models of their designs. CAD files are used to create physical parts using a process called Computer Aided Manufacturing (CAM). CAM software uses the CAD files to control machines that cut, drill, and mill parts. The combination of CAD and CAM is often referred to as CAD/CAM. CAD/CAM is used in a wide range of industries, including automotive, aerospace, and consumer products. CAD/CAM is a powerful tool for designers and manufacturers alike. It allows designers to create complex designs that would be difficult to create by hand. It also allows manufacturers to produce parts more quickly and accurately than traditional manufacturing methods. CAD/CAM is a key technology in the modern manufacturing industry.



Safety Gear



Jewellers Clamp



Wire Wool



Needle Files



Metalworking Vice



Polishing Machine



Silicon Carbide Paper






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?

Reading Shakespeare's Imagination: A Midsummer Night's Dream

Plot	Key Characters	Key Quotations	Key Themes
<p>Four lovers, having an argument in the Athenian woods at midnight, are confused by fairies who are only trying to help. Throw in some magic, a custody battle over a little boy, and an amateur actor who unsuspectingly becomes the fairy queen's love interest... oh and a magic set of ass's ears... and there you have it - <i>A Midsummer Night's Dream</i>, a comedy.</p> <ul style="list-style-type: none"> • Hermia runs away with Lysander instead of marrying Demetrius. • The King and Queen of the fairies fight over a little boy. • Puck muddles up the lovers and causes havoc with a love potion. • Bottom gets the ears of an ass and Titania falls in love with him. • Oberon puts things right and wins the little boy from Titania. • The lovers get married. Bottom's friends put on a play to celebrate. • The play is about Pyramus and Thisbe. • The fairies bless the marriages. 	<p>Puck - Also known as Robin Goodfellow, Puck is Oberon's jester, a mischievous fairy who delights in playing pranks on mortals.</p> <p>Lysander - A young man of Athens, in love with Hermia.</p> <p>Demetrius - A young man of Athens, initially in love with Hermia and ultimately in love with Helena.</p> <p>Hermia - Egeus's daughter, a young woman of Athens. Hermia is in love with Lysander and is a childhood friend of Helena.</p> <p>Helena - A young woman of Athens, in love with Demetrius.</p> <p>Bottom - The overconfident weaver chosen to play Pyramus in the craftsmen's play for Theseus's marriage celebration.</p> <p>Oberon - The king of the fairies.</p> <p>Titania - The beautiful queen of the fairies.</p> <p>Egeus - Hermia's father, who brings a complaint against his daughter to Theseus.</p> <p>Theseus - The heroic duke of Athens, engaged to Hippolyta.</p> <p>Hippolyta - The legendary queen of the Amazons, engaged to Theseus.</p>	<p>"Ay me, for aught that I could ever read, could ever hear by tale or history, The course of true love never did run smooth..."</p> <p>"If we shadows have offended, Think but this, and all is mended: That you have but slumbered here, While these visions did appear; And this weak and idle theme, No more yielding but a dream; Gentles, do not reprehend. If you pardon, we will mend."</p> <p>"Though she be little she be fierce"</p> <p>"I must go seek some dewdrops here, And hang a pearl in every cowslip's ear."</p> <p>"Cupid is a knavish lad, This to make poor females mad."</p> <p>"Love looks not with the eyes, but with the mind, And therefore is wing'd Cupid painted blind."</p> <p>"Lord what fools these mortals be!"</p> 	<p>Love: Shakespeare explores the lighter side of love in <i>A Midsummer Night's Dream</i>. Love makes us behave in strange ways - the lovers fight in a most uncivilised way in the woods. It can bring out the best and bravest qualities in a character - Hermia risks her life for love. Lovers often feel invincible against a world that doesn't understand them, just as Hermia and Lysander stand alone against Athens's law. Love can make us ridiculous - Helena asks a boy to treat her like a dog, whilst Titania falls in love with a donkey. Love can be cruel - Helena and Demetrius fall desperately in love with someone who doesn't love them back. Love also has a powerful magical quality: falling in love can be like being under a spell.</p> <p>Appearance and Reality: Sometimes things are not quite what they seem. Sometimes we fail to see situations as they really are. People often pretend to be something that they're not, hiding their true selves for one reason or another. Shakespeare was really interested in this idea and explored it in many of his plays. This theme is usually referred to as appearance and reality.</p> <p>Order and Disorder: Much of the comedy of <i>A Midsummer Night's Dream</i> comes from the chaos created when the natural order of things is disrupted. But there's a darker side too. There's not one character that isn't relieved when Oberon finally restores the midnight world to a happier one by day.</p> 
<p>Context</p> <p>The most influential writer in all of English literature, William Shakespeare was born in 1564 to a successful middle-class glove-maker in Stratford-upon-Avon, England. Shakespeare attended grammar school, but his formal education proceeded no further. In 1582 he married an older woman, Anne Hathaway, and had three children with her. Around 1590 he left his family behind and travelled to London to work as an actor and playwright. Public and critical success quickly followed, and Shakespeare eventually became the most popular playwright in England and part-owner of the Globe Theatre. His career bridged the reigns of Elizabeth I (ruled 1558-1603) and James I (ruled 1603-1625), and he was a favourite of both monarchs. Indeed, James granted Shakespeare's company the greatest possible compliment by bestowing upon its members the title of King's Men. Wealthy and renowned, Shakespeare retired to Stratford and died in 1616 at the age of fifty-two.</p>			

Unit 2: Shakespeare

Poetry:

Spellbound Emily Brontë

The Poison Tree William Blake

Still I Rise Maya Angelou (consider Helena's voice, link with other characters who are marginalised)

The Magic of the Mind by Clive Webster

Do you cannot All for Me? Anon (humour and word play)

Poetic terms

Meaning – the main message of the poem

Speaker – the voice of the poem

Imagery – the words which paint images in the reader's mind

Simile – indirect comparison (like/as)

Metaphor – direct comparison

Personification – when a non-living object is described as looking like or behaving like a human

Tone – the feeling/atmosphere of the poem

Structure – the organisation of the poem, its rhyme scheme, the rhythm

Stanza – grouped lines in a poem

Form – the type of poem – i.e. sonnet, ode

Caesura – punctuation which occurs mid-line; slows the rhythm

Enjambment – lack of terminal punctuation, speeding up the poem

End-stopping – punctuation at the end of a line

Metre – number of beats per line

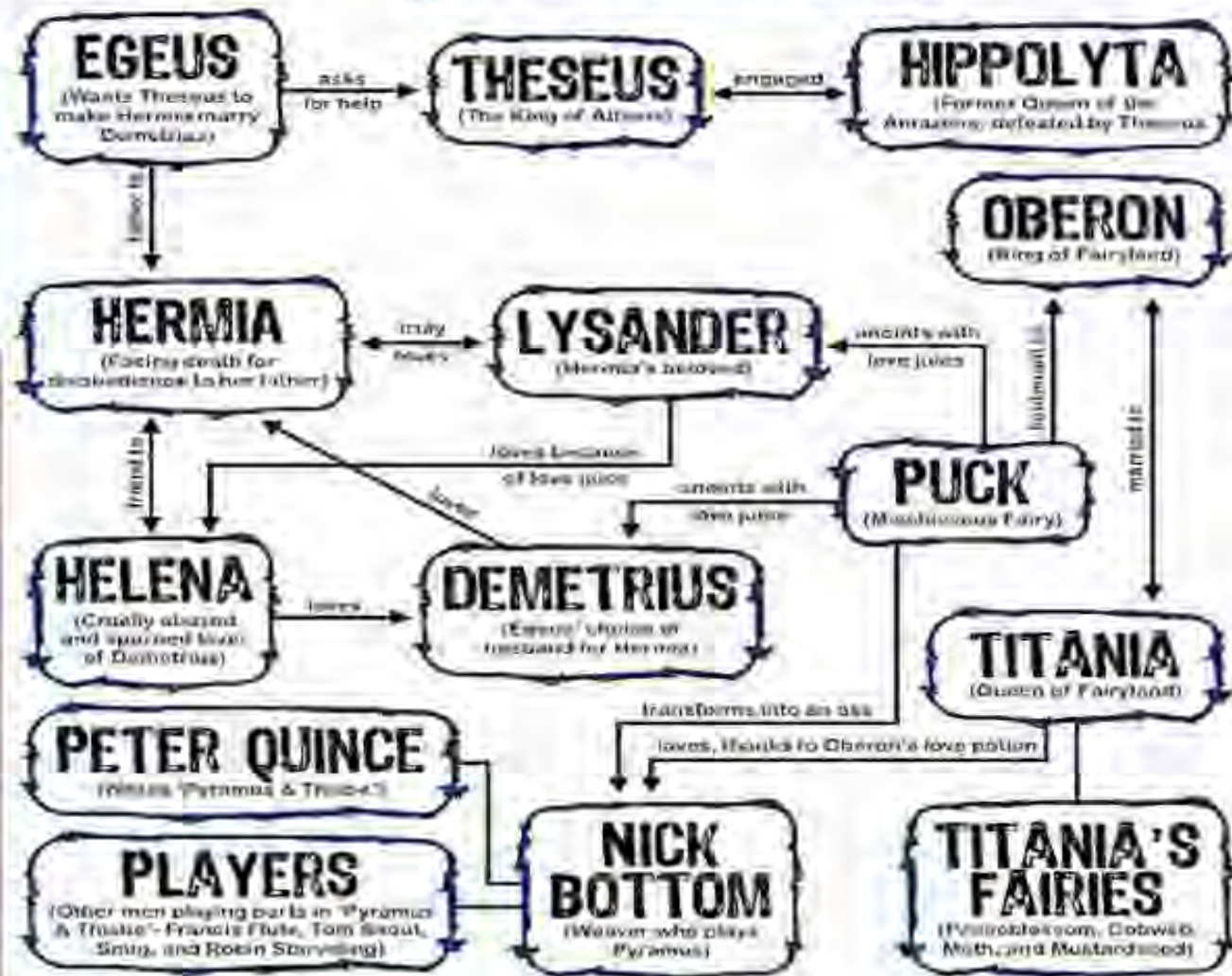
Plosive – sound made by stopping airflow – b, t, k, d, p, it creates a harsh sound.

Onomatopoeia – a word which sounds like the thing it is describing – i.e. bang

Alliteration – the repetition of the same sound

Sibilance – the repetition of the 's' sound

Relationships in the play



Literature terminology - Symbolism, motif, archetype, soliloquy, allusion, lyricism, farce, comedy

What do we need proteins for?

- Build enzymes and hormones
- Build cell membranes
- Repair and maintain tissue
- Defend the body (antibodies)
- Secondary source of energy

What happens if we have too much of too little?

- Excess**
- Kidney and liver diseases
 - Weight gain
- Deficiency**
- Kwashiorkor
 - Slowing growth rate
 - Swelling

Protein alternatives

Vegetarians and vegans don't consume meat so instead they use protein alternative products which are manufactured in order to provide protein in a diet and protein rich foods.



What do we need carbohydrates for?

- Primary source of energy
- Store energy for later
- Build DNA
- Prevent the body from using proteins as an energy source

What happens if we have too much of too little?

- Excess**
- Tooth decay
 - Type 2 diabetes
 - Weight gain and obesity
 - Hyperglycaemia
- Deficiency**
- Weight loss
 - Lack of energy, tiredness
 - Severe weakness
 - Hypoglycaemia

What do we need fats for?

- Source of energy
- Insulation
- Dissolve vitamins
- Build hormones
- Build cell membranes

What happens if we have too much of too little?

- Excess**
- Obesity
 - Hypertension
 - Coronary heart disease
 - Fatty liver disease
 - Type 2 diabetes
- Deficiency**
- Weight loss
 - Vitamin deficiency
 - Heart disease
 - Feeling cold

There are two different types of fats



Micro nutrients

Vitamins, minerals and essential nutrients that your body needs in small amounts to work properly

Fat-soluble vitamins

Fat-soluble vitamins (vitamin A, D, E and K) are mainly found in animal fats, vegetable oils, dairy foods, liver and oily fish. While your body needs these vitamins to work properly, you don't need to eat foods containing them every day.

Water-soluble vitamins

Water-soluble vitamins (vitamin C, the B vitamins and folic acid) are mainly found in fruit and vegetables, grains, milk and dairy food. These vitamins aren't stored in the body, so you need to have them more frequently. If you have more than you need, your body gets rid of the excess vitamins when you urinate.

Minerals

Minerals include calcium and iron amongst many others and are essential to most people. Iron, fish, milk and dairy foods, fruit and vegetables. Minerals are necessary for: Building strong bones and teeth; Controlling body fluids inside and outside cells; Turning the food you eat into energy.

Planning Meals for a Specific Dietary Requirement

- Celiac** – cannot eat products containing gluten.
- Lactose intolerance** – the body can't digest the sugar lactose in dairy products.
- Vegetarian**: No meat in the diet.
- Lacto-ovo-vegetarian** – eat dairy and eggs
- Lacto-vegetarian** – eat dairy
- Ovo-vegetarians** – eat eggs
- Pescatarians** – eat fish
- Vegan**: No products from animals in the diet e.g. meat, milk or honey, often avoid using other products of animal origin, such as leather, clothing, fur, leathers, etc. All foods are plant based.

	Islam (Muslims)	Judaism (Jews)	Hinduism (Hindus)
Eat	Halal food only	Kosher food only Only fish which have cold fins also scales can be eaten	Yika Mainly vegetarian
Don't eat or drink	Pork Alcohol Fish and shellfish without scales	Shellfish Pork Meat with dairy	Beef Alcohol
Holidays or fasting periods	Ramadan – month long fasting period during which Muslims cannot eat or drink	Pesover celebrates liberation of Jews from slavery in ancient Egypt Rosh Hashanah Yom Kippur Hanukkah	Diwali – festival of lights
Dress information	Haram means prohibited. Allowed. To be <i>halal</i> meat has to be processed in a specific way, e.g. animals must be slaughtered in a particular way where all the blood is drained from them.	Kosher means pure. Mikto is a special unslaughtered bird killed during Pesover. This means laws of halal are known as <i>halal</i> .	Cows are sacred animals and, therefore, their meat cannot be eaten. During Diwali, sweets are given as gifts.

Year 9 Knowledge Organiser

Macronutrients: nutrients needed by the body in large amounts. They include proteins, fats and carbohydrates.

Micronutrients: nutrients needed by the body in small amounts. They include vitamins, minerals and trace elements.

Dietary Reference Value (DRV): the amount of a nutrient a person needs.

Keywords relating to Fats and Oils

Lipids: a general term given to fats.

Satiety: feeling full after eating.

Saturated fats: fats with two hydrogen atoms for each carbon atom. They are mainly solid at room temperature and are usually animal fats.

Unsaturated fats: fats which are usually liquid or soft at room temperature.

Monounsaturated fats: contain a pair of carbon atoms with only one hydrogen atom attached. Soft at room temperature, but will harden when put in the fridge. Considered to be healthier than other fats.

Polyunsaturated fats: have two or more pairs of carbon atoms which are capable of taking up more hydrogen atoms. Soft and oily at room temperature and do not harden in the fridge.

Trans-fatty acids: manmade molecules created when manufacturers add hydrogen to vegetable oils (hydrogenation).

Hydrogenation: the process of turning oils into solid fats.

Visible fats: fats that can be seen, such as the fat on meat and butter or oils used for frying or salad dressings.

Invisible fats: fats found in the products that we eat, such as biscuits, ice cream and ready meals.

Essential fatty acids: small units of fat needed to keep our bodies functioning properly.

Cholesterol: a fatty substance that is essential for cell membranes. Too much cholesterol in the body can increase the risk of cardiovascular disease. (A disease related to the heart or blood vessels, e.g. coronary heart disease.)

Keywords relating to Protein

Growth: e.g. from childhood to adulthood, and for the growth of nails, hair and muscle mass.

Repair: e.g. repairing our muscles, tissues and organs after illness or injury.

Maintenance: e.g. to make enzymes for digestion and antibodies to stop us getting ill.

High Biological Value (HBV) Protein: foods that contain all the essential amino acids.

Low Biological Value (LBV) Protein: foods that contain some of the essential amino acids.

Amino acids: small units that join together to make large molecules of proteins.

Essential amino acids: the nine amino acids that cannot be made by our bodies, so we must eat the proteins that contain them.

Complementary proteins: LBV proteins that are eaten in one meal together to provide the essential amino acids.

DRV of an average male: should consume 55g of protein each day.

DRV of an average female: should consume on average of 45g of protein each day.

Alternative proteins: proteins suitable for vegetarians and vegans. E.g. beans, lentils and nuts.

Soya: soya beans are one of the few plant-based HBV protein sources.

Mycoprotein: traditionally made from mushroom-like fungi's and egg white (although now there are vegan alternatives that use potato starch instead).

Textured Vegetable Protein (TVP): made from grinding soya beans. The soya flour is used to make dough which when baked has a meat-like texture and can be made into sausages, burgers and ready meals.

Tofu: made by curdling soya milk.

DRV: An average male should consume 55g of protein and an average female should consume 45g of protein each day.

Growing children need a greater amount of protein relative to their size and body mass.

Physically active people need more protein for muscle growth and repair.

Pregnant women need about 1g more protein than normal to help the baby grow. During breast feeding they require even more.

Keywords relating to Carbohydrates

Complex carbohydrates: such as starch and polysaccharides, take a lot longer to digest than simple sugars, so they gradually increase blood sugar levels and provide a slow, steady release of energy.

Simple sugars/carbohydrates: such as sugar can be divided in to monosaccharides and disaccharides. The body rapidly digests simple carbohydrates, making blood sugar levels rise quickly and providing a short burst of energy.

Monosaccharides: simple sugars made of small molecules that are easily digested. Includes glucose, fructose and galactose.

Disaccharides: double molecules of glucose joined together which take longer to digest. Includes sucrose, lactose and maltose.

Intrinsic sugars: sugars contained within plant cells.

Extrinsic sugars: sugars added to dishes and drinks.

Polysaccharides: complex carbohydrates made of long chains of sugar molecules that take a long time to digest. Includes starch fibre (NSP), pectin, dextrin and glycogen.

Empty Calories: added sugars are often referred to as 'empty calories' because they have no nutritional benefits other than energy.

Pectin: makes jams and jellies set. It cannot be digested by the body.

Dextrin: formed when toasting bread or baking cakes, biscuits and pastry. Our bodies can digest this and break it down into glucose for energy.

Glycogen: formed in the liver from digestion and is used as an energy source.

Fibre/non-starch polysaccharides (NSP): the non-digestible part of plant cell walls.

Provides bulk in the diet and helps to move waste food through the digestive system.

Soluble fibre: slows down the digestive process and can help lower blood cholesterol levels.

Insoluble fibre: absorbs water and helps prevent constipation.

Wholegrain: A 'wholegrain' is made up of three elements.

• a fibre-rich outer layer – the **bran**

• a nutrient-packed inner part – the **germ**

• a central starchy part – the **endosperm**

During the milling process, the bran and the germ are often removed to give a 'whiter' cereal.





9.12 Tenses and Festivals

Verbs and the présent tense in French

The infinitive

When you look up a verb in the dictionary, you find its original, unchanged form which is called the **infinitive** (regarder, manger, boire, finir, jouer, avoir, être, etc.). The infinitive ends in **-er**, **-ir** or **-re**.

Forming the present tense in French

Take off the last 2 letters of the infinitive (**-er**, **-ir** or **-re**) and add the following endings depending on the pronoun:

	ER verb	IR verb	RE verb
je	-e	-is	-s
tu	-es	-is	-s
il / elle / on	-e	-it	/
nous	-ons	-issons	-ons
vous	-ez	-issez	-ez
ils/elles	-ent	-issent	-ent

Verbs and the near future tense in French

You can talk about the future by using the **near future** tense (*le futur proche*). Use part of the verb ALLER followed by the infinitive to say what you are **going to** do.

Ce soir je **vais jouer** au tennis. *Tonight I am going to play tennis.*
Demain Paul **va faire** un gâteau. *Tomorrow Paul is going to make a cake.*

ALLER	
Je vais	I am going
Tu vas	You are going
Il / elle / on va	He / she / one is going
Nous allons	We are going
Vous allez	You (lot) are going
Ils / elles vont	They are going

Verbs and the past tense in French

You can talk about the past by using the **perfect** tense (*le passé composé*).

The perfect tense has 2 parts:

- The auxiliary (**avoir** or **être**) – use **être** with *Mrs Vandertramp* verbs
- The past participle (must agree in number and gender for *Mrs Vandertramp* verbs)

To form the past participle, take off the infinitive endings (**-er**, **-ir** or **-re**) and add **-é**, **-i** or **-u**.

J'**ai** achet**é** des baskets au centre commercial. I **have bought** trainers at the shopping mall.

Hier il **a** jou**é** au foot dans le parc. *Yesterday he play**ed** football in the park.*

Hier elle est all**ée** au cinéma - *Yesterday she went to the cinema*

AVOIR	auxiliary	ÊTRE
Avoir		Être
J'ai		Je suis
Tu as		Tu es
Il / elle a		Il / elle est
Nous avons		Nous sommes
Vous avez		Vous êtes
Ils / elles ont		Ils / elles sont






French Year 9 .12 Tenses and Festivals

<p>Les phrases du passé L'année dernière Le mois dernier Avant hier La semaine dernière Hier Dans le passé Quand j'avais...ans L'été dernier L'hiver dernier Il y a ... (deux ans) Le weekend dernier</p>	<p>Past Tense Time Phrases Last year Last month The day before yesterday Last week Yesterday In the past When I was.... years old Last summer Last winter ... ago (two years ago) Last weekend</p>	<p>Les verbes clés Ma fête préférée est... Noël La veille de Noël Le Pâques Le Dîpavali Le Hanoukka L'Aïd Le premier avril La Chandeleur Le Nouvel An La Saint-Sylvestre La Saint-Valentin La fête des Mères Le 14 juillet Un jour férié Le premier mai La fête de la musique L'anniversaire Le mariage Un fête Les invités Les cadeaux Le muguet Les blagues Un repas spécial Un cadeau Les feux d'artifices Religieux/religieuse Traditionnel/traditionnelle En famille</p>	<p>French Festivals My favourite festival is Christmas Christmas Eve Easter Divali Hanukkah Eid April Fool's Day Candelemas New Year New Year's Eve Valentine's Day Mother's Day Bastille Day A bank holiday May Day/Labour Day Music festival Birthday Marriage Party Guests Presents Lily of the valley Joke A special meal A cake Fireworks Religious Traditional Family</p>	<p>Les verbes clés Célébrer Boire Décorer Donner les cadeaux Chanter Danser Allumer les bougies Manger Préparer S'amuser Inviter Regarder S'habiller Se rencontrer Apporter Se relaxer Passer Réunir Ouvrir Voir Je célèbre avec Nous allons nous souhaiter</p>	<p>Key Verbs To celebrate To drink to decorate To give presents To sing To dance To light candles To eat To prepare To have fun To invite To watch To dress up To meet up with family To bring To relax To spend To gather To open To see I celebrate it with We wish each other</p>
<p>Les verbes au passé Je suis allé(e) J'ai célébré J'ai mangé J'ai bu J'ai ouvert C'était</p>	<p>Past Tense Verbs I went I celebrated I ate I drank I opened It was</p>			<p>Les verbes au futur Je vais aller Je vais célébrer Je vais manger Je vais boire Je vais ouvrir Ça va être</p>	<p>Future Tense Verbs I will go I will celebrate I will eat I will drink I will open It will be</p>
<p>Les phrase du futur L'année prochaine Le mois prochain Après demain Demain La semaine prochaine Dans le futur Quand j'aurai ... ans L'été prochain L'hiver prochain Le weekend prochain</p>	<p>Future Tense Time Phrases Next year Next month The day after tomorrow Tomorrow Next week In the future When I will be.... years old Next summer Next winter Next weekend</p>				

Year 9 Geography

Will we ever stop human exploitation?

Human rights	Are rights we have simply because we exist as human beings - they are not granted by any state (country). These universal rights are inherent to us all, regardless of nationality, sex, national or ethnic origin, colour, religion, language, or any other status.		Qatar is hosting the 2022 World Cup. It is building 8 new stadiums and an entire new city. Migrants make up 94% percent of all workers in Qatar and 86% of the country's total population— the world's highest ratio of migrants to citizens. The highest proportion of migrant workers come from India and Bangladesh.
Universal Declaration of Human Rights (UDHR)	Adopted by the UN General Assembly in 1948, was the first legal document to set out the fundamental human rights to be universally protected.	Qatar is located in Western Asia on the Persian Gulf. The capital city is Doha.	Syria is located in Western Asia. The capital city is Damascus.
Migrant	Someone who moves, this can be within a country or between countries. Either permanently or temporary but not as a tourist.	Syria has faced a number of years of war and political instability. This has led to mass migration of people from Syria. People who are forced to leave their country as a result of war are refugees.	
Immigrant	Someone that moves into a new place		
Emigrant	Someone that leaves a place		
Push factor	A reason that makes someone to leave (negative)		China is the biggest manufacturer of iPhones globally, with 349 suppliers. Apple outsource to companies such as Foxconn.
Pull factor	A reason that attracts someone to a new location	Conditions that some face in factories: long 12 hour shifts, cramped living conditions, relentless and repetitive work.	
Forced migration	Movement of people away from their homes due to political conflict, natural disaster		
Forced labour	Work that is involuntarily and under the menace of any penalty.		
Globalisation	The process by which the world is becoming increasingly interconnected as a result of massively increased trade and cultural exchange		



Year 9 German – Festivals and Traditions

Celebration /Festivals	Celebrations/Festivals
der Aschermittwoch	Ash Wednesday
der Karfreitag	Good Friday
der Karneval/der Fasching	Carnival/Carnival
der Maifeiertag	May Day
der Mutterstag	Mother's Day
Ostern	Easter
Pfingsten	Whitsun
Tag der Deutschen Einheit	Day of German Unity
der Valentinstag	Valentine's Day
Geburtstag/Halloween	Birthday/Halloween
der Neujahrstag	New Year's Day
Silvester	New Year's Eve
der Aprilscherz	April Fool's Day

Key vocab	Key vocab
die Einladung	Invitation
die Feier/das Fest	Celebration/Festival or celebration
die Festlichkeit	Celebration
der Feiertag	Public holiday
die Tradition/kirchlich	Tradition/religious
die Moschee	Mosque
die Fastenzeit	Period of fasting/Lent
die Umzüge/die Wagen	Processions/floats
der Osterhase/ das Osterei	Easter bunny/Easter egg
das Feuerwerk	Fireworks
die Kerze/das Licht	Candle/light
der Gast/der Gastgeber/die Menge	Guest/host/crowd
die Geschenke	Presents
die Zuckertüte	Cone filled with sweets
die Gastfreundschaft	Hospitality
die Party/Das Straßenfest	Party /street party

Key Vocab	Key phrases
München	Munich
Köln	Cologne
Berliner Pfannkuchen	Sweet doughnut
das Oktoberfest	October Beer festival
Scherze/Streiche	Jokes/tricks
die Hexe	Witch
das Kostüm	Costume
das Volksfest	Public festival
die Besucher	Visitors
der Grillabend	barbecue

Key verbs in infinitive	Key verbs in infinitive
bekommen	to get/to receive
danken	to thank
einladen	to invite
feiern	to celebrate
sich verkleiden	to dress up
besuchen	to visit
teilnehmen	to take part
stattfinden	to take place
dauern	to last
freuen (sich auf)	to look forward to
freuen (sich über)	to be pleased about sthg
schmücken	to decorate
verstecken /schicken	to hide/to send

Weihnachten	Christmas
der Adventskranz	Advent wreath
der Weihnachtsbaum	Christmas tree
die Weihnachtslieder	Christmas carols
Heiliger Abend	Christmas Eve
Erste Weihnachtstag	Christmas Day
Zweite Weihnachtstag	Boxing Day
der Lebkuchen	Gingerbread
austauschen	To exchange
der Sankt Nikolas Tag	St Nicholas' Day (6th Dec)
Gänsebraten/ der Rotkohl	Roast goose/red cabbage

Key Question words	Key Question words
Wann?	When?
Warum?	Why?
Wer	Who?
Wie?	How?
Was?	What?
Was für?	What sort of?
Wo?	Where?
Wohin?	Where to?
Woher?	Where from?
Wozu?	What for? Why?
Wieso?	Why? How come?
Wie viel?	How much?
Wie viele?	How many?



Year 9 Geography, History and culture

Ich kann sprechen	Everyday language
Guten Tag	Good day
Guten Morgen	Good Morning
Guten Abend	Good evening
Gute Nacht	Good night
Auf Wiedersehen	Goodbye
Auf Wiederhören	Goodbye (on phone)
Hallo!	Hi!
Tschüss	Bye
Grüß Gott	Hello
Wie geht's?	How are you?
Bis später	See you later
Bis morgen	See you tomorrow
Bitte	Please/you're welcome
Danke	thanks
Natürlich	Of course
Was ist los mit dir?	What's wrong with you?
Wie schade	What a pity
Es tut mir leid	I am sorry
Ich weiß nicht	I don't know
Ich verstehe nicht	I don't understand
Vielleicht	perhaps
Wie bitte?	I beg your pardon
Viel Glück	Good Luck

Erdkunde	Geography
auf dem Land	Cathedral
an der Küste	Monument
der Fluss	River
die Gegend	Building
am Meer	By the sea
der Einwohner	Inhabitant
der Baum/die Blume	Tree/flower
der Hafen	Port/harbour
in den Bergen	In the mountains
der Hügel	Hill
die Landschaft	Landscape
die Insel	Island
die Mauer	Wall
der Platz	Place/square
die Umgebung	Surrounding area
der Wald	Wood/forest
der Rhein	Rhein
Die Alpen	The Alps
Die Bundesländer	The Federal States
Bayern	Bavaria
der Schwarzwald	The Black Forest
die Mosel	Moselle
die Donau	Danube
Wien	Vienna
die Schweiz	Switzerland
Österreich	Austria
Genf	Geneva

Wo ist	Where is
im Norden	In the north
im Osten	In the east
im Westen	In the west
im Süden	In the south
die Hauptstadt	Capital city
am Stadtrand	On the outskirts of town
im Stadtzentrum	In the town centre

Erdkunde	Geography
die Ostsee	Baltic Sea
das Mittelmeer	Mediterranean
Asien	Asia
die Nordsee	North Sea
der Ärmelkanal	English Channel
Rom	Rome
Venedig	Venice
Basel	Basle
der Bodensee	Lake Constance
die S-Bahn	Suburban railway
die U-Bahn	Underground
die Straßenbahn	Tram
die Tankstelle	Petrol station
tanken	To fill up
der Zebrastreifen	Zebra crossing
das Benzin	Petrol
der Verkehr	traffic


Context

1960's and 70's Britain is often regarded as a period of revolution and change. During this topic we are going to assess how much change occurs during this time period for LGBTQ+, women and Black people.

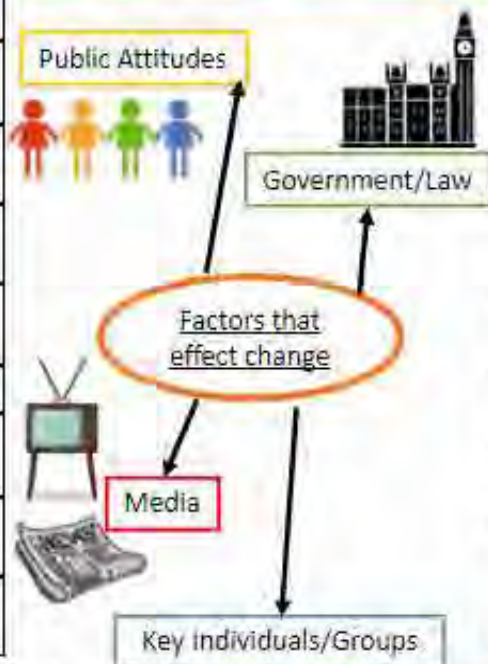
Key Events

1	1961 – The Contraceptive pill available for married women for the first time on the NHS.
2	30th April – 17th September 1963 – Bristol Bus Boycott took place to challenge discrimination on Bristol's buses.
3	1965 – Race Relations Act passed, first law to ban racial discrimination in public places and made it a criminal offence.
4	1967 – Sexual Offences Act was passed which decriminalised private homosexual acts between men aged over 21.
5	1967 – Family Planning Act passed, contraception available to all through the NHS.
6	1968 – The first St Pauls Carnival took place in Bristol.
7	7th June 1968 – 187 women sewing machinists at the Ford Motor Company plant in Dagenham , Essex, went on strike.
8	9 August 1970 – Black Power activists march against police harassment of the Black community in Notting Hill, London.
9	1 July 1972 - First Pride march took place in the UK, approximately 2000 protesters marched in London.

History – Year 9
Knowledge Organiser
Term 5



How much did life change for LGBTQ+, women and Black people during the 1960's and 70's?



Key Terms

10	activism	Any action of campaigning to bring about change. Usually social or political change.
11	civil rights	The rights of citizens to political and social freedom and equality.
12	decriminalisation	To no longer to treat something as illegal or as a criminal offence.
13	equality	The state of being equal, especially in status, rights, or opportunities.
14	legalisation	To make something that was previously illegal allowed by law.
15	liberation	To set someone or something free. For example from oppression.
16	revolution	To overthrow a government or social order, in favour of a new system.
17	Second Wave Feminism	Feminists who sought to change social and sexual discrimination.

Key Skills

18	Change and continuity.	What changed and continued, stayed the same, for each group during the 60's and 70's? Why? How quickly did things change? To what extent did they change?
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1968 - British Black Panthers BBP	1970 - Gay Liberation Front GLF	c.1960's – Women's Liberation Movement WLM	1978 - Organisation of Women of Asian and African Descent OWAAD	Darcus Howe BBP	Olive Morris BBP	Stella Dadzie OWAAD	Roy Hackett Bristol Bus Boycott	Paul Stephenson Bristol Bus Boycott	Aubrey Walter GLF	Bob Mellors GLF

RATIO AND DIRECT PROPORTION

Key Concepts

To calculate the **value** for a single item we can use the **unitary method**.

When working with best value in monetary terms we use:

$$\text{Price per unit} = \frac{\text{price}}{\text{quantity}}$$

In recipe terms we use:

$$\text{Weight per unit} = \frac{\text{weight}}{\text{quantity}}$$

If 20 apples weigh 600g. How much would 28 apples weigh?

$$600 \div 20 = 30\text{g} \rightarrow \text{weight of 1 apple}$$

$$30 \times 28 = \mathbf{840\text{g}}$$

Box A has 8 fish fingers costing £1.40.

Box B has 20 fish fingers costing £3.40.

Which box is the better value?



$$A = \frac{\text{£1.40}}{8} = \text{£0.175}$$

$$B = \frac{\text{£3.40}}{20} = \text{£0.17}$$

Therefore Box B is better value as each fish finger costs less.

Examples

The recipe shows the ingredients needed to make 10 flapjacks. How much of each will be needed to make 25 flapjacks?

Ingredients for 10 Flapjacks

80 g rolled oats

60 g butter

30 ml golden syrup

36 g light brown sugar

Method 1: Unitary

$$80 \div 10 = 8$$

$$8 \times 25 = \mathbf{200\text{g}}$$

$$30 \div 10 = 3$$

$$3 \times 25 = \mathbf{75\text{g}}$$

$$60 \div 10 = 6$$

$$6 \times 25 = \mathbf{150\text{g}}$$

$$36 \div 10 = 3.6$$

$$3.6 \times 25 = \mathbf{90\text{g}}$$

Method 2: 5 flapjacks

$$80 \div 2 = 40$$

$$40 \times 5 = \mathbf{200\text{g}}$$

$$30 \div 2 = 15$$

$$15 \times 5 = \mathbf{75\text{g}}$$

$$60 \div 2 = 30$$

$$30 \times 5 = \mathbf{150\text{g}}$$

$$36 \div 2 = 18$$

$$18 \times 5 = \mathbf{90\text{g}}$$

Key Words

Unitary, Best Value, Proportion Quantity

Useful Links

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

<https://corbettmaths.com/contents/>

<https://www.bbc.co.uk/bitesize/subjects/zqhs34/>

Ingredients
to make 16 gingerbread men

180 g flour

40 g ginger

110 g butter

30 g sugar

1) How much will we need to make 24 gingerbread men?

2) Packet A has 10 toilet rolls costing £3.50. Packet B has 12 toilet rolls costing £3.60. Which is better value for money?

3) If 15 oranges weigh 300g. What will 25 oranges weigh?

8005 (E) you need d0E 8 jaxpjd (Z jdgins 35p 'axrtmq 899t 'xabuq 809 'mnoj 80z2 (1 S8E8MSW

Year 9 Term 6 Maths

DIRECT AND INVERSE PROPORTION

Key Concepts

Variables are directly **proportional** when the **ratio is constant** between the quantities.

Variables are **inversely proportional** when one **quantity increases in proportion to the other decreasing**.

Direct proportion:

Value of A	32	P	56	20	72
Value of B	20	30	35	R	45

Ratio constant: $20 \div 32 = \frac{5}{8}$

From A to B we will multiply by $\frac{5}{8}$.
From B to A we will divide by $\frac{5}{8}$.

$$P = 30 \div \frac{5}{8} = 48$$

$$R = 20 \times \frac{5}{8} = 12.5$$

Examples

Inverse proportion:

Value of A	10	20	14	R	28
Value of B	14	P	10	70	5

$$P = 7$$

$$R = 2$$

Key Words

Direct, Inverse, Proportion Divide, Multiply, Constant

Useful Links

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

<https://corbettmaths.com/contents/>

<https://www.bbc.co.uk/bitesize/subjects/zqhs34/>

Complete each table:

1) Direct proportion

Value of A	5	P	22
Value of B	9	28.8	Q

2) Inverse proportion

Value of A	4	P	18
Value of B	9	3	Q

2 = 0 '2T = d (2 9'56 = 0 '9T = d (T S8E8MSW

SIMILARITY - LENGTHS

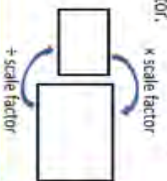
Key Concepts

Similar shapes are an enlargement of one another.

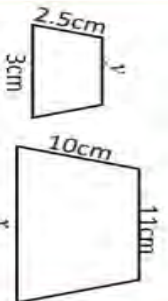
A **scale factor** is used, whereby all lengths are multiplied by the same number.

When finding a missing length on the larger shape we **multiply** by the scale factor.

When finding a missing length on the smaller shape we **divide** by the scale factor.



Examples



$$\text{Scale factor} = \frac{10}{2.5}$$

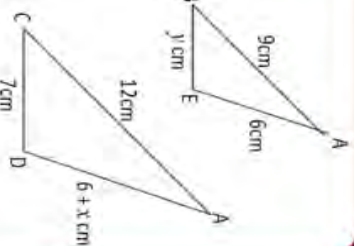
$$= 4$$

$$x = 3 \times 4$$

$$= 12\text{cm}$$

$$y = 11 \div 4$$

$$= 2.75\text{cm}$$



$$\text{Scale factor} = \frac{12}{9}$$

$$= \frac{4}{3}$$

$$x + 6 = 6 \times \frac{4}{3}$$

$$x + 6 = 8$$

$$x = 8 - 6$$

$$x = 2\text{cm}$$

$$y = 7 \div \frac{4}{3}$$

$$= 5.25\text{cm}$$

Key Words

Similar, Scale factor, Enlarge, length

Useful Links

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

<https://corbettmaths.com/contents/>

<https://www.bbc.co.uk/bitesize/subjects/zqhs34j>



1) Calculate the length of:
a) PR
b) BC



2) Calculate the length of:
a) CD
b) ED

ws2.7 (q) ws5'2T (e7) w00E (q) w06E (e1) S8WSNSW

PLANS AND ELEVATIONS

Key Concepts

A 3 dimensional shape can be mathematically drawn from **three view points**:

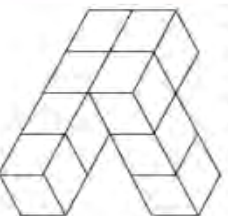
Side view

Front view

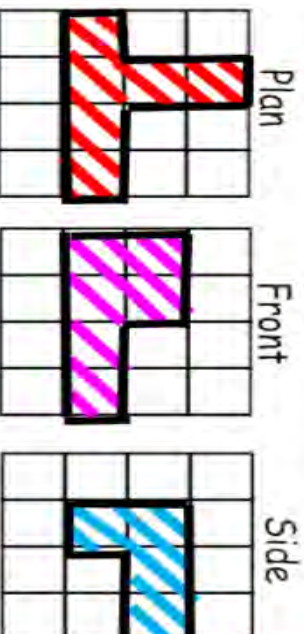
Plan view – from above

They are drawn as 2 dimensional representations

Draw this 3D shape from the side view, the front view and the plan view.



Examples



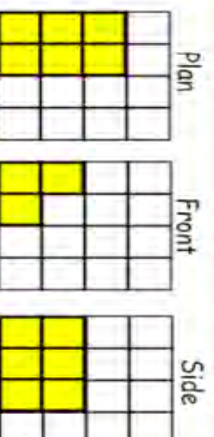
Key Words
Elevation, Plan, Side, Front

Useful Links

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

<https://corbettmaths.com/contents/>

<https://www.bbc.co.uk/bitesize/subjects/zqhs34j>



Sketch the 3D shape that has these three views.

TRANSFORMATION - REFLECTION, ROTATION AND TRANSLATION

Key Concepts

A reflection creates a mirror image of a shape on a coordinate graph. The mirror line is given by an equation eg. $y = 2$, $x = 2$, $y = x$. The shape does not change in size.

A rotation turns a shape on a coordinate grid from a given point. The shape does not change size but does change orientation.

A translation moves a shape on a coordinate grid. Vectors are usually shown as arrows.



Key Words

Rotate, Clockwise, Anticlockwise, Centre, Degrees, Reflect, Mirror Image, Translate, Vector

Useful Links

<https://www.mathsrevision.com/transformations/transformations.html>
<https://www.mathsrevision.com/transformations/transformations.html>
<https://www.mathsrevision.com/transformations/transformations.html>

Reflect shape A in the line $x = 1$. Label it B.



Reflect shape A in the line $y = x$. Label it B.



Examples

Rotate shape A from the point (1, 1). A.



Translate shape A by $\begin{pmatrix} 2 \\ 3 \end{pmatrix}$. Label it B.



Describe the single transformation you get to get B coordinate grid from A to B.



Describe the single transformation you get to get B coordinate grid from A to B.

TRANSFORMATION - ENLARGEMENT

Key Concepts

An enlargement changes the size of an image using a scale factor from a given point.

A positive scale factor will increase the size of an image.

A fractional scale factor will reduce the size of an image.

A negative scale factor will place the image on the opposite side of the centre of enlargement, with the image inverted.

Examples

Enlarge shape A by scale factor 2 from point P.



Enlarge by scale factor $\frac{1}{2}$ from point P.



Enlarge by scale factor -2 from (0,0).



Describe the single transformation you get to get B coordinate grid from A to B.



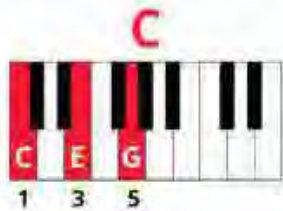
Useful Links

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<https://www.mathsrevision.com/transformations/transformations.html>

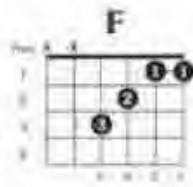
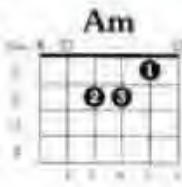
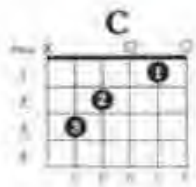
Music KO – Instrumental Skills

Chords

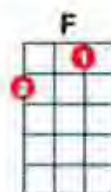
Piano



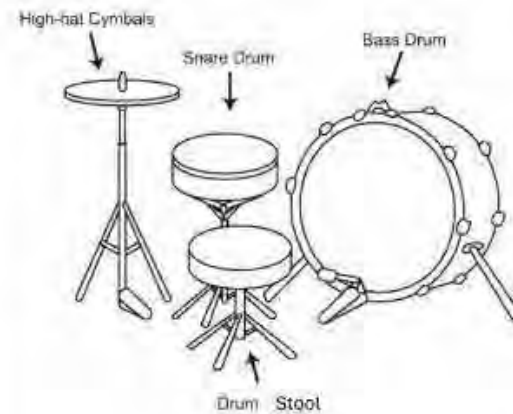
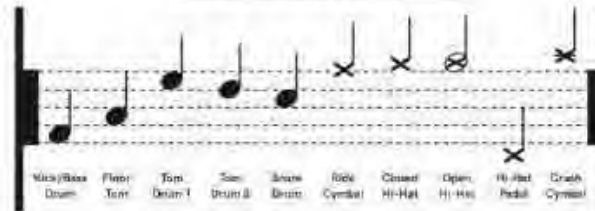
Guitar



Ukulele



Drum Notation



Keywords

- Chords – Multiple notes played at the same time
- Inversion – Changing the order of notes in a chord
- Structure – The order of sections in a piece of music
- Melody – A string of notes one at a time, the melody is sung in a song
- Pulse – The constant, steady beat in music that keeps different parts in time
- Riff – a repeating musical pattern
- Frets – The spaces between the metal bars on the neck of a guitar, ukulele or bass (Start counting from furthest away from the instrument body)

Bass



PE Knowledge Organiser

COMPONENTS OF PHYSICAL FITNESS



Aerobic endurance: the ability of the cardio-respiratory system to efficiently supply nutrients and oxygen to working muscles during sustained physical activity.

Muscular endurance: the ability of the muscular system to work efficiently, where a muscle can continue contracting over a period of time against a light to moderate fixed resistance load.

Flexibility: having an adequate range of motion in all joints of the body; the ability to move a joint fluidly through its complete range of movement.

Speed: distance divided by the time taken. (Accelerative speed, pure speed, speed endurance).

Muscular strength: the maximum force (in kg or N) that can be generated by a muscle or muscle group.

Body composition: the relative ratio of fat mass to fat-free mass (vital organs, muscle, bone) in the body.

COMPONENTS OF SKILL-RELATED FITNESS



Agility: the ability of a sports performer to quickly and precisely move or change direction without losing balance or time.

Balance: ability to maintain a centre of mass over a base support. (Static, dynamic).

Coordination: the smooth flow of movement needed to perform a motor task efficiently and accurately.

Power: the product of strength and speed.

Reaction time: the time taken for a sports performer to respond to a stimulus and the initiation of their response.

Change-makers: How does belief inspire change? Knowledge Organiser

NEED TO KNOW WORDS	
Activism	The use of action to bring about change
Civil Rights	Political and social equality and freedom
Civil Disobedience	refusal to comply with certain laws
Democracy	A publicly elected government
Racism	To discriminate against people of a certain race
Equality	A state of being equal
Social Justice	Fair distribution of wealth and rights in a society
Prejudice	Prejudged opinions of a person or group
Discrimination	Unfair treatment of a group

What is activism?

The word "activism" is only about 100 years old, at least in its current use, and derives from the verb to act. An activist is someone who is active in campaigning for change, normally on political or social issues. Activism is what activists do, that is, the methods they use in order to bring about change. Human rights activism is thus about reacting to injustice, to abusive treatment, to violence or discrimination, and trying to correct it.

Christian views on prejudice and discrimination

Christians believe that all humans are made in the image of God. Therefore any action that devalues a person is an insult to God who created and loves that person:

'Love your neighbour as yourself.' – **Matthew 22:39**

Islamic views on prejudice and discrimination

Islam teaches that God created everyone as equal but different. As all are created by God, discrimination against any human is unjustified. The ummah crosses all gender, race and wealth boundaries:

"All human beings are equal like the teeth of a comb." – **Hadith**

Examples of Activism

Demonstrations and protests	During a demonstration or a protest, people united by a common belief meet together. They might march along a specific route, sit in at a specific place to draw attention to the cause, or hold a vigil to honour someone's life
Boycotts	to refuse to buy a product or take part in an activity as a way of expressing strong disapproval
Strikes	When workers deal with unfair or dangerous work conditions, low wages, or other issues, they might refuse to work when negotiations are refused or they fail.
Social media campaigns	Also known as "hashtag activism," it brings activism to social media networks like Instagram and Twitter. Users raise awareness of issues, organizations, and actions through posts, graphics, videos, and more.

Social Justice – Malcolm X

Malcolm X was an important leader who fought against racism and worked to empower Black people in the United States. He believed that Black people should have control over their own lives and communities, and he criticized the way that mainstream civil rights leaders were approaching the issue. He contributed to social justice by:

- Promoting Black Independence and challenging the idea of white superiority.
- Advocating for Black economic and political power through initiatives such as Black nationalism and separatism.
- Highlighting the impact of systemic racism and institutional discrimination on the Black community.

Changemakers: How does belief inspire change? Knowledge Organiser

NEED TO KNOW WORDS		Racism – Martin Luther King Jr	
Conviction	A firmly held belief or opinion	Martin Luther King Jr was a prominent civil rights leader who fought for racial equality and social justice in the United States from the mid-1950s to his assassination in 1968.	
Marginalised	Individuals or groups who are excluded from mainstream society	Influence of Beliefs:	Contributions to change
March on Washington	the historic civil rights march on Washington D.C. on August 28, 1963, where Martin Luther King Jr. delivered his famous "I Have a Dream" speech.	Christian beliefs strongly influenced his activism and his vision for social justice. He saw the struggle for civil rights as a moral issue, and he believed that all people were created equal in the eyes of God. He emphasised the importance of love and nonviolence in the struggle for justice, drawing on Jesus' teachings in the New Testament.	<ul style="list-style-type: none"> Advocating for nonviolent protests to challenge racial discrimination and segregation. Leading the Montgomery Bus Boycott and the March on Washington, which brought national attention to the Civil Rights movement. Promoting racial equality and the end of segregation through the Civil Rights Act of 1964 and the Voting Rights Act of 1965.
LGBTQ+ rights	equal rights and protections of LGBTQIA+ individuals	LGBTQ+ – Marsha P Johnson	
Education – Malala Yousafzai		Marsha P. Johnson was a Black transgender woman and LGBTQ+ rights activist who fought for justice and equality for marginalized communities.	
Malala Yousafzai is a Pakistani education activist who has become a prominent voice for girls' education and women's rights.		Contributions to change	Impact on religion:
Influence of Beliefs:	Contributions to change	<ul style="list-style-type: none"> Being a prominent figure in the Stonewall uprising of 1969, which is widely considered a turning point in the fight for LGBTQ+ rights Co-founding the Street Transvestite Action Revolutionaries (STAR) which provided housing and support to homeless transgender youth. Challenging traditional gender norms. Promoting the idea that all people should be free to express their true selves. 	Marsha P. Johnson's legacy has inspired many religious communities to re-examine their traditional teachings on gender and sexuality. Some religious organizations have even begun to recognize and celebrate the lives of LGBTQ+ figures like Marsha P. Johnson as part of their own religious traditions, highlighting the intersections between faith and social justice.
Malala Yousafzai is a Muslim, and her faith has played a significant role in inspiring her activism for girls' education and women's rights. She drew on the example of Prophet Muhammad, who taught that seeking knowledge was a duty for both men and women, to inspire her own advocacy for girls' education.	<ul style="list-style-type: none"> Advocating for girls' education in Pakistan. Co-founding the Malala Fund to promote girls' education around the world Speaking out on a variety of global issues, including refugees, climate change, and social justice. 		

Changemakers: How does belief inspire change? Knowledge Organiser

NEED TO KNOW WORDS

Speciesism	The belief that one species, typically humans, is superior to and has the right to dominate over other species
Climate change	Refers to the long-term changes in the Earth's climate primarily due to human activities such as burning fossil fuels and deforestation.
Ummah	the global community of Muslims

Christian views on Activism

Many Christians believe that they are called to work for justice and to serve others, based on the teachings of Jesus Christ. They see activism as a way to live out their faith and to make a positive impact in the world. This can take many different forms, including political advocacy, social justice work, and community service.

At the same time, many Christians also believe in the importance of prayer, worship, and spiritual reflection as a way to sustain their activism and to remain connected to God's guidance and wisdom. They see activism as part of a larger spiritual journey, and they believe that their faith can provide strength and inspiration for their work.

Speciesism – Peter Singer

Peter Singer is a philosopher and ethicist who is known for his work in animal rights.

<p>Contributions to change</p> <ul style="list-style-type: none"> Criticizing the use of speciesism, or the belief that humans are superior to other animals, as a justification for the exploitation and mistreatment of non-human animals. 	<p>Significance</p> <p>Peter Singer's secular humanist worldview has led him to be a strong advocate for the rights and well-being of all beings, and has inspired many people to re-examine their own ethical beliefs and values.</p>
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Climate – Extinction Rebellion

a global environmental movement that aims to raise awareness about the climate crisis and the urgent need for action to prevent further damage to the planet.

<p>Aims:</p> <p>To pressure governments and other institutions to take immediate action to address the climate crisis, including reducing carbon emissions, transitioning to renewable energy, and protecting biodiversity. XR also advocates for systemic change that would move away from a fossil fuel-based economy and toward a sustainable and just society.</p>	<p>Activism:</p> <p>The methods used by XR include nonviolent civil disobedience, such as blocking roads and disrupting public spaces, as well as other forms of protest and direct action. The movement believes that such tactics are necessary to draw attention to the urgency of the climate crisis and to pressure those in power to take action.</p>
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Islamic views on Activism

In Islam, the concept of social justice is central, and Muslims believe that they have a responsibility to work for the betterment of society and to alleviate the suffering of those in need. This can take many forms, including political activism, social welfare work, and community service.

Muslims also believe in the importance of prayer and worship as a way to connect with God and to seek guidance and inspiration for their work. They see activism as a way to live out the principles of their faith and to embody the teachings of the Prophet Muhammad.

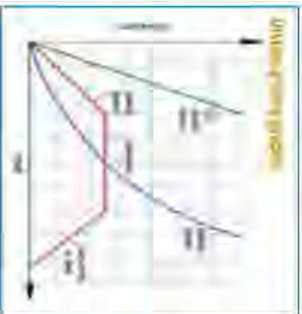
EDEXCEL 9-1 Combined Science | Year 10 Physics Topic 1 – Motion, Forces and Energy | Required Knowledge

CPG F & H tier p145-164

Vector	Scalar
A property with magnitude (size) & direction.	A property with magnitude (size) only.
Velocity	Speed
Displacement	Distance
Weight	Mass
Acceleration	
Force	

Average speed is calculated using this equation:

$$\text{Speed (m/s)} = \frac{\text{Total distance (m)}}{\text{Total time (s)}}$$



Acceleration: units: m/s^2 . Speeding up or slowing down. Two equations to learn:

$$v - u = a \times t$$



a = acceleration
v = final velocity
u = initial velocity
t = time taken

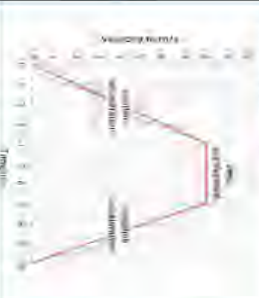
And:

$$v^2 - u^2 = 2 \times a \times s$$

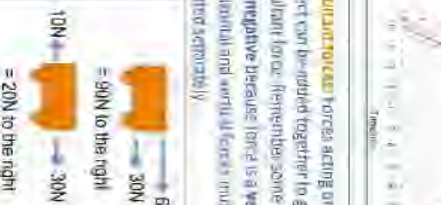
Where s = distance.

Slowing down is negative acceleration, not deceleration.

Area: **Area under the line = distance travelled!**



Resultant force: Forces acting on an object can be added together to give the resultant force. Remember, some to see we're negative because force is a vector. Horizontal and vertical forces must be treated separately.



Newton's 1st Law: An moving object will continue to move in the same velocity (speed and direction) until acted on by a resultant force.
Or
A stationary object will remain at rest until acted on by a resultant force.

The Circular motion: An object moving in a circle is constantly changing direction. Change in direction means change in velocity, and therefore the object is accelerating (positive or negative) even if it's speed does not change. This means a force is required to keep the object moving in a circle. This force is called the centripetal force.



Newton's 2nd Law:

Force = mass \times acceleration

$$F = m \times a$$



Newton's 3rd Law: Two objects interacting with one another experience equal forces in opposite directions.

I push on the door } 3rd Law
Door pushes back on me }
I pull on the floor }
Floor pulls back on me }
My forces on the door = Door's force on me
Action force = Reaction force

Energy stores: Energy is stored in different ways.

- **Chemical energy:** Stored in chemical form, e.g., food, fuel (e.g. petrol), batteries.
- **Kinetic energy:** Stored in moving objects, e.g. car, train, spinner.
- **Thermal energy:** Stored as heat, e.g., hot water.
- **Elastic potential energy:** Stored in stretched materials, e.g., springs, rubber bands.
- **Gravitational potential energy:** Stored in objects raised a height above ground, e.g., a ball held above the ground.
- **Nuclear energy:** Stored inside atoms.

Conservation of energy: Energy cannot be created or destroyed. It can only be transferred from one store to another. For example, a car transfers energy from the chemical store (fuel) to the thermal store (in the engine) and then to the kinetic store (in the wheels). The total amount of energy stays constant. This is the law of conservation of energy. Some of the energy is transferred to the wheels, trace as friction and not to the kinetic store in the wheels.



Energy: Energy is a body's capability to have an effect on its surroundings. For example: A hot cup of tea will heat the air around it and the table top it sits on. Units: Joules (J).

Stopping distances = Thinking distance + braking distance.

Thinking distance: The distance travelled in the time between the driver seeing the situation and reacting.

- Affected by: tiredness; drugs; alcohol (links); distractions (e.g. using a mobile phone).

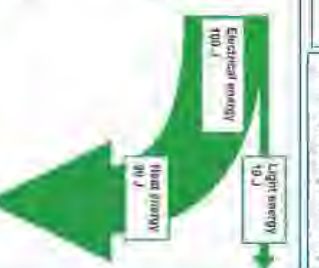
Braking distance:

- The distance travelled while the brakes are applied.
- Slows the car down by friction.
- Affected by: Road conditions (e.g. loose gravel, wet), tyre conditions, weight of the vehicle.

Crash hazards: Rapid acceleration (positive or negative) – like in a car crash – is dangerous for the human body. Cars have **crumple zones** where the engine compartment crumples in a crash, increasing the time over which the impact takes place. This reduces the rate of the deceleration felt by the passengers.

Energy diagrams:

Energy transfers between energy stores can be represented by Sankey diagrams. In a Sankey diagram, the width of the arrow represents the amount of energy transferred. The arrow splits into different directions for transfers to different energy stores. The Sankey diagram opposite shows energy transfers in a filament light bulb. It shows that most of the energy is wasted as heat.



Mass

How much matter there is.

Same regardless of location.

Measured in kilograms (kg).

Scalar (size only).

Weight = mass \times gravitational field strength
 $W = m \times g$
On Earth, $g = 10 \text{ N/kg}$.

Weight

The force of gravity acting on the mass.

Changes depending on location (e.g., different planets).

Measured in Newtons (N).

Vector (size and direction).

Impulse: A measure of how hard it is to stop an object moving. Vector. Units: kg m/s .

Momentum = mass \times velocity
 $p = m \times v$

To change the momentum of an object, a resultant force is needed.

Change in momentum

$$\text{Force} = \frac{\text{change in momentum}}{\text{time}}$$

$$F = \frac{mv - mu}{t}$$

Collision between two objects. The total momentum is conserved before and after the collision.



Transferring heat: Heat is transferred in various ways.



Kinetic energy: $E_k = \frac{1}{2} \times \text{mass} \times \text{velocity}^2$

$$KE = \frac{1}{2} \times m \times v^2$$

Gravitational potential energy: = mass \times gravitational field strength \times height

$$GPE = m \times g \times h$$

Non-renewable resources: include: coal, oil and gas, known as fossil fuels. When burnt they release carbon dioxide and other gases, which contribute to climate change. Nuclear fuel (uranium) is also non-renewable but contributes less to climate change. Instead it leaves nuclear waste, which remains dangerous for thousands of years.

Renewable resources: include: solar cells, hydroelectricity, wind turbines and tidal power. Renewable resources will not run out. They do not generate carbon emissions. Renewable resources are being increasingly used as they become cheaper and as non-renewable resources begin to run out. Bio-fuels are made from animal waste or plants. They are burned to generate energy.



Keeping warm: It is difficult to keep a house warm because heat energy tends to spread. Insulation stops heat energy being conducted from inside to outside.

Cavity wall insulation reduces heat loss, because the air gaps stop heat energy being conducted from inside to outside.

Energy efficiency: Energy cannot be created or destroyed. Some energy is transferred to the useful store (light in the case of the lightbulb). Some of the energy is transferred to a different store and is wasted (heat in the case of the lightbulb).

Useful energy transferred by the device
Efficiency = $\frac{\text{Total energy transferred by the device}}{\text{Total energy transferred by the device}}$

A lightbulb which consumes 100 J of electrical energy and outputs 10 J of light energy has an efficiency of 0.10.

DNA (Pg 27)

- DNA is the genetic material contained in the **nucleus** of a cell
- The entirety of the human DNA is called the **genome**.
- DNA is contained within the chromosomes inside the nucleus.
- It has a double helix shape.

**Extracting DNA (Pg 27)**

1. Mix washing up liquid (**breaks down cell membranes**) and salt (**clumps DNA together**)
2. Mash fruit (**breaks up cells**)
3. Filter (**separates solid lumps of fruit and the now dissolved DNA**)
4. Gently add ice-cold ethanol (**DNA is insoluble in ethanol, so precipitates out to be collected**).

**Genetics keywords (Pg 28)**

Key word	Definition
Gene	A section of DNA that codes for one thing.
Allele	A different version of the same gene.
Offspring	The 'children' of an organism.
Dominant	The stronger allele.
Recessive	The weaker allele.
Homozygous	Having 2 of the same allele.
Heterozygous	Having 2 different alleles.
Genotype	The different alleles that an organism has e.g. Rr
Phenotype	The characteristic the organism has. E.g. purple flowers

Base pairs (Pg 27)

- Four base pairs:
 - A (adenine)
 - T (thymine)
 - C (cytosine)
 - G (guanine)
- Base pairs are bonded together with **hydrogen bonds**
- **A always bonds with T, C always bonds with G**
 - These are known as complimentary base pairs
- Each base is attached to a **sugar** and **phosphate** backbone. Together these are known as a **nucleotide**.

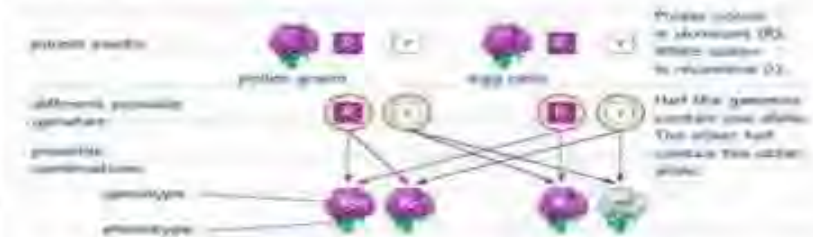
DNA is a polymer made of many monomers, called nucleotides, joined together.

**Genes & Alleles (Pg 28)**

- Genes are short lengths of DNA that code for a specific protein.
- This means they control certain features (e.g. eye colour)
- Alleles are different versions of the same gene (e.g. blue eye gene or brown eye gene.)
- You have two alleles for each gene, one from Mum and the other from Dad.
- Alleles can be dominant (use a capital letter) or recessive (use a lower-case letter)
 - Aa

Genetic diagrams (Pg 28)

- Used to predict the possible outcomes of a cross depending on the parents genotypes.
- Two kinds



- Punnett squares are easier to use

		Father's genotype	
		R	r
Mother's genotype	R	RR	Rr
	r	Rr	rr

Probabilities (Pg 28)

- Possible outcomes are represented as probabilities.



- $RR = 1/4 = 25\% = 0.25$
- $Rr = 2/4 = 50\% = 0.50$
- $rr = 1/4 = 25\% = 0.25$

Sex determination (Pg 29)

- The sex of a child dependent on the 23rd pair of chromosomes (either X or Y)
 - XX = woman
 - XY = Man
- Use a Punnett square to show the probability of having a boy or girl.



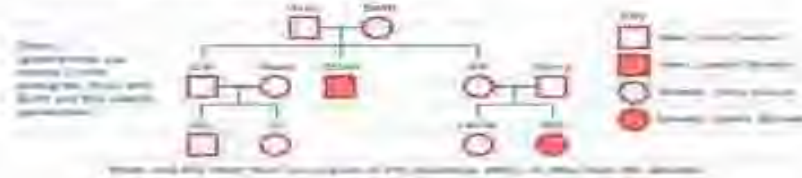
- $XX = 2/4 = 50\%$ chance girl
- $XY = 2/4 = 50\%$ chance of boy

Variation (Pg 30)

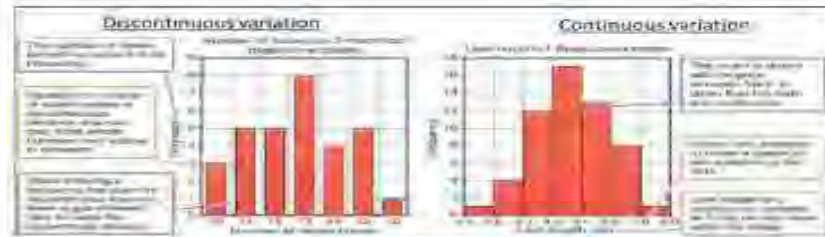
- Differences in the same species is known as **variation**.
- Variation can be **inherited** from parents (e.g. eye colour)
- Variation can be **environmental** (e.g. a scar or tattoo)
- Variation can be a combination of **both** inheritance and environment, (e.g. weight)

Pedigree charts (Pg 29)

- Used to track genetic disorders which can be passed from parent to child.
- Parents can be carrier of the gene that causes the disease but not suffer with the disease.

**Studying variation (Pg 6)**

- Data gathered can be either continuous (data can be any value in a range) or discontinuous (data can only take on a limited number of values)
- Plotted on bar graphs with differences in how each is plotted.

**Mutation (Pg 30)**

- Mutations are caused by changes to the original DNA code in an organism.
- Mutations can cause changes in phenotype if the code of certain genes is changed.
- These changes to specific genes bring about different alleles.
- Mostly mutation cause no change to phenotype at all.

Human Genome Project (Pg 31)

- Complete map of the human genome.
- Decoding the base pairs making up all the genes in our DNA.
- Took 13 years to complete.
- Advantages
 - Predicting and preventing inherited diseases (see if genes known to interact to cause like heart disease or cancer present – make changes to lifestyle accordingly)
 - Testing and treatment for inherited disorders (look to see if disease exists before baby is born)
 - Development of new drugs where known interactions between drugs and genes is known.
- Disadvantages
 - Stress/worry (if you possess a known disease gene)
 - Gene-ism (people pressured not to have a baby if they have a known gene)
 - Discrimination (people with known genes prevented from getting jobs or health insurance)

Transcription & translation (Pg 36)

Proteins made in two stages

Transcription

- Uses mRNA to read the code on the DNA strand
- Base pair Uracil (U) instead of thymine (T)

- 1) The **RNA polymerase** binds to a region of **unwinding DNA** in front of a gene.
- 2) The two DNA strands **unzip** and the RNA polymerase **unzips** one of the strands of the DNA.
- 3) It **uses the coding DNA** in the gene as a **template** to make the **mRNA**. **Base pairing** between the DNA and RNA ensures that the **mRNA is complementary** to the gene.
- 4) Once made, the mRNA **remains outside** of the nucleus and **joins with a**



Translation

- mRNA binds to a ribosome (site of protein synthesis)
- Protein is then assembled

- 1) **tRNA** are brought to the **ribosome** by another RNA molecule called **release factor**.
- 2) The **codon** in which the amino acids are brought to the ribosome **matches** the order of the **anticodon** in mRNA. **Base triplets** in mRNA are also known as **codons**.
- 3) Part of the tRNA's structure is called an **amino acid** to the **ribosome**. The pairing of the codon and anticodon **ensures** that the amino acids are brought to the ribosome in the **correct order**.
- 4) The amino acids are **joined** by the ribosome. This makes a **polypeptide chain**.



Gregor Mendel (Pg 37)

Identified the presence of dominant and recessive genes through his work on peas



Sex-linked disorders (Pg 40)

- X and Y chromosomes are a different length (Y is shorter)
- Genes present on the longer part of the X chromosome automatically expressed in the phenotype of a boy as there is no corresponding gene to compete with it.
- Sex-linked disorders more likely to be seen in boys because of this.
- For example: colour-blindness



No possible colour blind female offspring, 50% chance of colour blind if having a boy.

Blood groups (Pg 41)

- Four blood groups (A, B, AB & O).
- Three possible alleles (I^A, I^B & I^O) – this is known as codominance
- I^A & I^B are codominant with each other, I^O is recessive
- Blood group AB caused by having I^AI^B genotype



Natural Selection (p32)

- Genetic variation exists in populations because of mutations
- Selection pressures happen (competition, predation etc)
- Some individuals are better adapted to the conditions
- They are more likely to survive and reproduce – 'survival of the fittest'
- The alleles causing the variation are more likely to be passed on
- Individuals less well adapted die



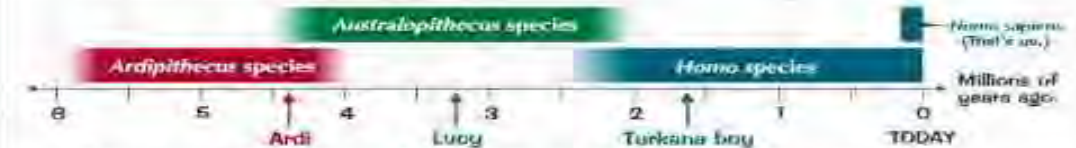
A population of mice has moved into a new area where the rocks are very dark. Due to natural genetic variation, some mice are black, while others are tan.

Tan mice are more visible to predatory birds than black mice. They, tan mice, are eaten at higher frequency than black mice. Only the surviving mice reach reproductive age and leave offspring.

Because black mice had a higher chance of leaving offspring than tan mice, the next generation contains a higher fraction of black mice than the previous generation.

Evidence for Evolution (p32/33/34)

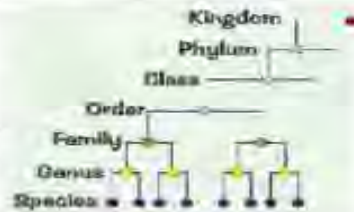
- Fossils arranged in date order show gradual changes in organisms over time
- Key hominid (human-like) fossils:



- Over time the features of the fossils changed from more ape-like to more human-like; arms got shorter, legs got longer, feet became adapted for walking not climbing, brain got bigger
- Tools found with the fossils of Homo species also got more complex over time (they help date fossils using carbon dating on wood or looking at depth in older rocks)

Bacteria and antibiotic resistance**Classification (p35)**

- Organisms are classified (grouped) using similarities and differences
- 5 kingdom classification system
Animals, plants, fungi, prokaryotes (single-celled organisms with no nucleus, protists (single-celled organisms with a nucleus/eukaryotes)
- Kingdoms are subdivided to smaller groups with more in common
- 3 Domain classification system
Technology and understanding of DNA led to a new classification system with 3 large groups (prokaryote kingdom split into 2)
- Eukarya: animals, plants, fungi and protists
- Bacteria: single-celled organisms with no nucleus
- Archaea: organisms which look like bacteria but have difference in DNA

**Breeds and Varieties (p35)**

- Breeds = animals
e.g. dog breeds
- Varieties = plants
e.g. apple varieties

Selective Breeding (p36)

- Humans choose organisms with the characteristics they want
 - They breed them together
 - They select the best of the offspring, and breed them together
 - Continue for several generations until all offspring have the desired characteristic
- Useful in farming e.g. producing animals with more milk or meat
 - However, it reduces the gene pool, the best organisms are always used and they are closely related = inbreeding which can cause health problems
 - Also the lack of variation in the population means that if one organism is affected by a new disease the others are also likely to be affected

Higher - Genetic engineering of bacteria (p37)

Genetic engineering changes an organisms DNA to introduce desirable characteristics. It uses **vectors** (carriers). There are 2 types: **Plasmids**, which are circular molecules of DNA which can be transferred between bacteria. **Viruses** which insert DNA into the organism (the infect).

It also uses 2 types of enzyme: **Restriction enzyme** to cut DNA at specific point leaving 'sticky ends'. **Ligase** to join pieces of DNA using sticky ends.

Genetic engineering in agriculture (p37)

- Used to produce crops resistant to herbicides so weeds can be killed without killing plants
- Used to make crops resistant to insect pests to improve yields (feed a growing population) and reduce use of pesticides
- Concerns about effect on the organism, effect on food chains and human health and about transfer of genes out into the environment - 'superweeds'
- Can produce more food in other ways to avoid these risks e.g. use of fertilisers, biological control of pests by introducing predators (although this can cause problems as they are usually non-native)

Don't forget to try the revision questions for topics 3 & 4 on page 38!

¿Cuál es tu festival favorito?	What is your favourite festival?
Mi festival favorito es...	My favourite festival is...
La Navidad	Christmas
La Nochebuena	Christmas Eve
La Nochevieja	New Year's Eve
El día de año nuevo	New Year's Day
El día de los Reyes Magos	Three Wise Men Day
La Semana Santa	Easter / Holy Week
Las hogueras	The bonfires
La feria de abril	The April fair
Día de muertos	The day of death
El cumpleaños	Birthday
El carnaval	Carnival
La feria	Fair
El día de la madre	Mother's day
El día del padre	Father's day
El día festivo	Bank Holiday
El encierro	The bull running
Las fallas	Fallas
Els castells	Human towers
La Tomatina	Tomato festival

9.12 Festivals Spanish Vocab List



¿Qué hacemos para celebrar?	What do we do to celebrate?
Me levanto	I get up
Me ducho	I shower
Me visto	I get dressed
Recibo regalos	I receive presents
Soplo velas	I blow candles
Monto el árbol de Navidad	I put up the Christmas tree
Compró ropa nueva	I buy new clothes
Voy a la Iglesia	I go to church
Voy a la mezquita	I go to the mosque
Voy a la plaza	I go to the square
Voy a casa de...	I go to ...'s house
... llega	... arrives
Comemos...	We eat...
Ayunamos	We fast
Jugamos a juegos de mesa	We play table games
Celebramos	We celebrate
Lo paso muy bien	I have a good time
Me acuesto	I go to bed
Voy a dormir	I go to sleep

¿Cómo es?	How is it like?
Emocionante	Exciting
Conmovedor	Moving
Divertido	Fun
Insoportable	Unbearable
Impactante	Striking

¿Qué pasa en los encierros / las corridas de toros?	What happens in the bull running / bull fighting?
San Fermín	A bull running festival held in Pamplona every July
Los toros	The bulls
Las calles	The streets
Correr	To run
Las corridas de toros	Bullfighting
Los encierros	Bull running
La plaza de toros	The bullring



Fallas	A festival held in Valencia every March
La hoguera	The bonfire
El cartón	Cardboard
Las fallas	Sculptures made of cardboard
Los fuegos artificiales	Fireworks
Los petardos	Firecrackers
Las bandas de música	Music bands



¿Qué pasa en la Tomatina?	What happens in the tomato festival?
La gente	People
Lanza tomates	Throws tomatoes
Aplasta tomates	Squish tomatoes
Se ensucia	Gets dirty
Tiene lugar en Buñol	Takes place in Buñol
La batalla	The battle
El caos	Chaos





9.12 Geography & History

Spanish Vocab List



La geografía	Geography
El país	The country
La región / la comunidad	The region
La ciudad	The city
El pueblo	The town/ village
La costa	The coast
Las islas	The islands
El interior	The inland regions
La historia	History
Castellano / Español	Spanish language
La Reconquista	Period of time when the Christian kingdoms "reconquered" the peninsula from the Muslims (Moors). Moors – Muslim inhabitants of modern-day Spain in
Moros	Conquerors of American territories in the 16th century
Conquistadores	Colonisation of the Americas
La Colonización	The Spanish Civil war between 1936 and 1939
La Guerra Civil Española	The fascist dictatorship in Spain between 1939 and 1975
La Dictadura fascista	Transition into democracy after the dictatorship
La Transición	The current political system in Spain: a parliamentary monarchy, like in the UK
La monarquía parlamentaria	

El lenguaje de todos los días	Everyday language
¡Hola!	Hello
Buenos días	Good morning
Buenas tardes	Good afternoon
Buenas noches	Good night
¿Cómo te llamas?	What's your name?
Me llamo...	My name is...
¡Adiós!	Goodbye
Hasta luego / hasta la vista	See you later
Por favor	Please
Gracias	Thank you
Muchas gracias	Thanks a lot
De nada	You are welcome
Perdone / Perdón	Excuse me / Apologies
Lo siento	I'm sorry
¿Habla inglés?	Do you speak English?
Hablo un poco de español	I speak a bit of Spanish
No entiendo	I do not understand
¿Dónde hay un buen restaurante?	Where is a good restaurant?
¿Dónde está el centro / la playa?	Where is the centre / the beach?
Me he perdido	I am lost
Busco un hotel / un hospital / un banco	I am looking for a hotel / hospital / bank
Busco la estación / el aeropuerto / la parada de bus	I am looking for the station / airport / bus stop
¿Me podría sacar una foto?	Could you take a picture?
¡Cuidado!	Be careful!
¡Vamos!	Let's go!

3 Time frames



The preterite tense of **regular verbs** is formed on an infinitive stem with the following endings:

Infinitive:	hablar	comer	vivir
Stem:	habl-	com-	viv-
Yo (I)	hablé	comí	viví
Tú (you)	hablaste	comiste	viviste
él/ella/usted (he/she/you)	habló	comió	vivió
Nosotros (We)	hablamos	comimos	vivimos
Vosotros (You all)	hablasteis	comisteis	vivisteis
ellos/ustedes (They/ you all)	hablaron	comieron	vivieron

Ser / Ir (To be /to go)

fui (I was / I went)
 Fuiste (You were / You went)
 Fue (he/she was // he /she went)
 Fuimos (we were / we went)
 Fuisteis (you all were / you all went)
 Fueron (they were /they went)

The future tense of **regular verbs** is formed adding the endings e, as, a emos, eis, an to the infinitive.

FUTURE SIMPLE			
	hablar	comer	vivir
Yo	hablaré	comeré	viviré
Tú	hablarás	comerás	vivirás
Usted, él, ella	hablará	comerá	vivirá
Nosotros-as	hablaremos	comeremos	viviremos
Vosotros-as	hablaréis	comeréis	vivireis
Ustedes, ellos, ellas	hablarán	comerán	vivirán

Regular verbs – present tense endings

	AR verbs	ER verbs	IR verbs
I	o	e	e
you	as	es	es
he/she/it	a	e	e
we	amos	emos	imos
you(pl)	áis	éis	ís
they	an	en	en



One image is called a **motif**

The motif can be repeated to make **two different patterns**

plain repeat pattern block repeat pattern / offset repeat pattern

What is the difference between a hem and a seam?
 A hem is a neat non-fraying edge made by folding fabric over and stitching it down. A seam is a line along which pieces of cloth are joined by sewing.

Year 9 Textiles Knowledge Organiser

About Designers

Orla Kiely

Orla Kiely is known for her print designs inspired by her early childhood – the colours of the countryside and her home.

Kiely's design work lends itself to CAD for its repetitive style. Her original work was hand painted using gouache paint. 'Stem' is her most iconic print which consists of simple graphic strength – clean, measured and bold.

Kiely believes her work is never finished and can be re-worked several times until she is satisfied with the end result.

Laura Ashley

Print has been at the forefront of the Laura Ashley brand since it was first established when Laura Ashley started printing fair wear designs for towel scarves.

She went on to design dresses for social visit of the end of the 1950s. Her popular long Victorian-inspired dresses became known as the 'Laura Ashley look'.

The business expanded into coordinated ranges of furnishing fabrics using natural materials such as cotton and recycled paper for wallpaper.

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.
Overlocker machine 	An overlocker does not replace a sewing machine. Its primary function is to clean finish a raw edge, giving the project a professional appearance.
Quick unpick 	It is used to quickly remove stitches and seams.
Tailor's chalk 	Used to mark on to fabric. It is easily washed off.
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

Valuable keywords used in most lessons every lesson: Tier 2

Basic keywords used in almost every lesson: Tier 1


- Plain seam
- analyse
- sustainable
- embellishment
- Woven/ bonded/ knitted
- Free machine embroidery
- function
- develop
- Complementary colours
- contrast
- environment
- fastening
- compare
- embroidery
- iron
- equipment
- context
- effect
- appliqué
- improve
- colour
- design
- shape
- machine
- pattern
- line
- Texture
- tone
- theme
- Fabric
- thread
- sew

Use these in your writing and speaking

Use connectives to link each paragraph!	Explain an idea: <ul style="list-style-type: none"> Although Except Unless However Therefore 	Sequencing: <ul style="list-style-type: none"> Firstly Secondly Next Finally Since
Adding to: <ul style="list-style-type: none"> Furthermore Also As well as Moreover 	Cause and effect: <ul style="list-style-type: none"> Thus So Therefore Consequently 	Contrasting: <ul style="list-style-type: none"> Whereas Instead of Alternatively Otherwise Then again
To empathise: <ul style="list-style-type: none"> Above all Ultimately Especially Significantly 	To compare: <ul style="list-style-type: none"> Likewise Equally In the same way Similarly 	Give examples: <ul style="list-style-type: none"> Such as For example In the case of As revealed by For 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...

History Chronology Skills

1. Memorise key **chronology** (centuries, millenniums and dates) for the **entire history**.

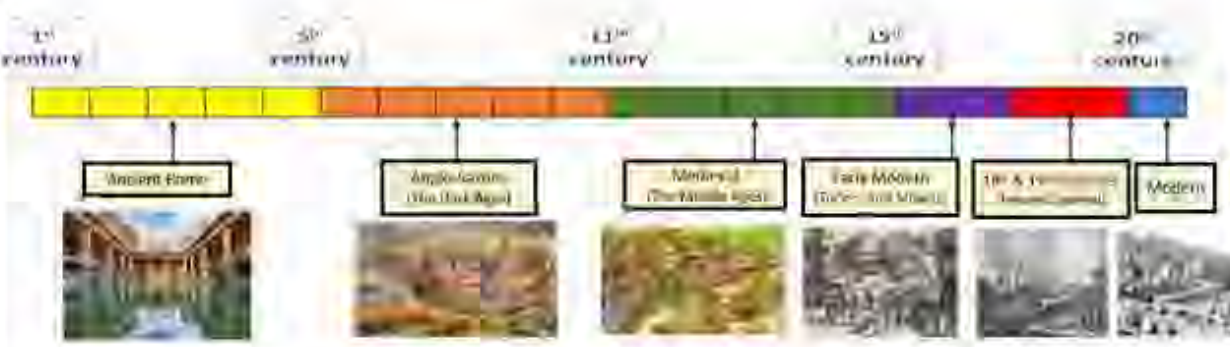
2. Use simple rules to convert the language used throughout the different historical **periods**.

→ Each block represents one **century** (100 years).

Century Formula = Add one '1' to the number of hundreds.

E.G. AD 150 = 1 + 1 = 2nd Century AD
 E.G. AD 1050 = 10 + 1 = 11th Century AD
 E.G. 100 BC = 1 + 1 = 2nd Century BC
 E.G. 1000 BC = 10 + 1 = 11th Century BC

When your date is 2 digits or less, it **MUST** be the first century AD/BC.
 E.G. AD 14 = 1st Century AD 100 = 1st Century BC



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



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

* 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					