



Year 8 Knowledge Organiser

Autumn Term (1) 2022

What you need to know!

Knowledge Organisers – FAQ

What is a Knowledge Organiser?

Every ½ term this academic year, a new Knowledge Organiser will be produced and put on the school website. These documents are produced for Year 7, Year 8 and Year 9 students and contain key information, specific subject terminology and links to additional resources to help you and your child fully understand topics within the different subject areas.

Can Knowledge Organisers be used for revision and preparing for assessments?

These Knowledge Organisers are designed around the content delivered in lessons each half term in Year 7, 8 and 9. Therefore, they are an excellent revision tool to help prepare your child for end of unit tests as well as their end of year exams which cover previously learned subject content.

How should I use the Knowledge Organiser?

In order that these documents are useful and not too complicated, the Knowledge Organiser is designed to include the basic facts and information being covered in a specific subject over that half term. You may choose to print a version in order that you annotate or tick off aspects once they are fully understood. You may also choose to use this as an electronic revision guide, using the hyperlinks to webpages to secure or deepen understanding.

What are the Arrow Tasks?

At Liskeard School & Community College, teachers use Arrow Tasks as a way of stretching your child. These tasks often involve extending their knowledge through research or applying a learned concept in another way. Try to complete all the Arrow Tasks within the Knowledge Organiser to increase your knowledge and extend your conceptual understanding.

Contents

Art
Drama
English
Ethics, Philosophy and World Views
French
Geography
History
ICT and Computer Science
Maths

Music
Physical Education
Science
Spanish
Technology: Food
Technology: Product Design
Technology: Textiles
A guide to revision strategies

Please note: These subjects are hyperlinked. Click on the subject to take you to the relevant pages.

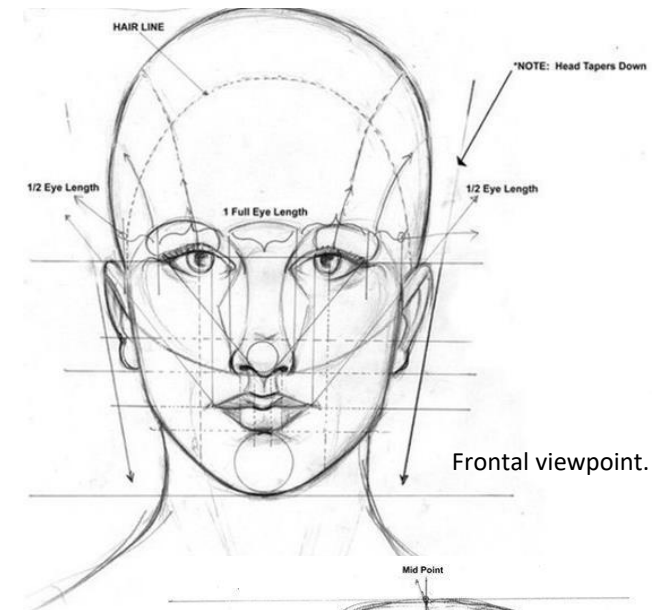
Topic: **Self Image (2D Form)**

I need to know: How to measure, record spacial relationships through the application of line, shape and tone in portraiture.

Key Words	Definitions
Primary Source	In the study of art history, a primary source is an artefact, document, diary, manuscript, autobiography, recording, or other source of information that was created at the time under study. In practical work, the artist looks directly at the subject of study, i.e. the real face, object or landscape.
Secondary Source	In the study of art history, a secondary source interprets and analyses primary sources. Secondary sources are one or more steps removed from the event. Secondary sources may contain pictures or quotes of primary sources. In practical work, the artist may use a photograph/s to draw from and may combine multiple sources of information.
Visual Analysis	When drawing you will ask yourself many silent questions. This internal conversation you will have with yourself is visual analysis, it is what will help you to make judgements about line, shape, tone, texture, contrast, colour; it enables you to refine your use of the formal elements or visual grammar.
Measuring	There are various techniques for measuring the real world to enable you to translate what you see onto a 2D surface for others to understand.
Proportion	Proportion refers to the relative size of shapes and objects. When drawing, most of the time is spent on measuring, comparing, re-measuring and re-comparing.
Estimating	Estimating in art usually occurs between the processes of measuring, comparing proportion and translating the real world to the 2D or 3D surface. By revisiting and re-comparing, your estimations become progressively more accurate with increasing information.
Scaling	Scale and proportion in art are both concerned with size. Scale refers to the size of an object (a whole). Proportion refers to the relationship between objects (another whole).
Grid Technique	The grid method enables you to reproduce and/or enlarge an image. You begin by drawing a grid over your reference photo; you then draw a grid of equal ratio on your paper; you can then translate what you see in each square. It can help because it enables you to reduce the whole, complex image, by focussing on smaller bits of information.
Tracing	Tracing and transferring images has been a technique used by artists throughout the centuries to save time and ensure accuracy in representational art. It is used by more artists than you may realize. You use a semi translucent material to draw over key outlines before transferring information from the translucent material to your artwork.

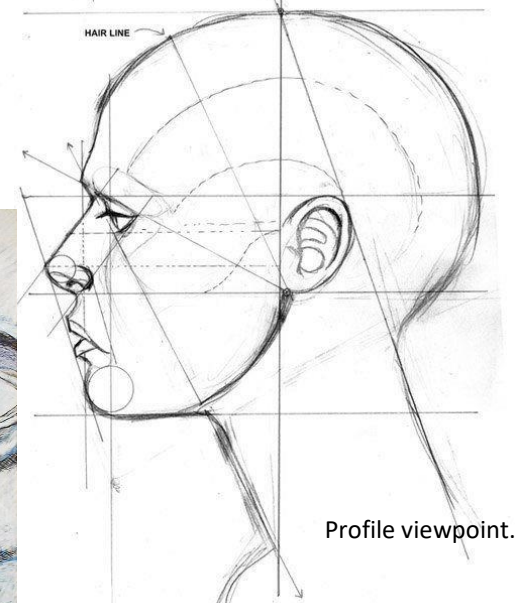
Arrow Tasks: Compare and reflect upon the portraits of Giacometti, Schiele, Holbein, Caravaggio, Peter Blake, Chagal, Dali, Klee and Durer. How do their styles vary and how might you exploit their methods of working?

Links to further resources: <https://www.npg.org.uk/>



Frontal viewpoint.

Measuring, proportion and spacial relationships.

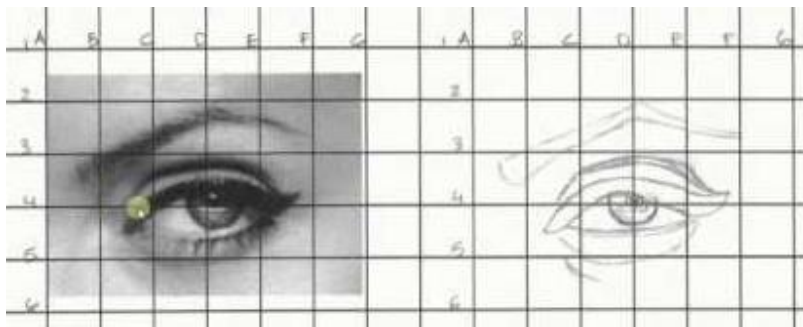


Profile viewpoint.

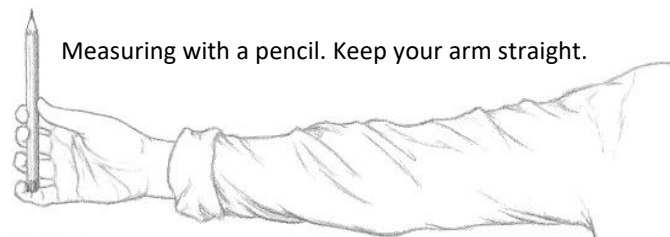
Yr 8 Student work.

Topic: **Self Image (2D Form)**

Key Words	Definitions
Transfer	This refers to the process of using a trace to copy key information from one image to a new surface.
Viewpoint	Viewpoint describes the position of the subject to the viewer, it involves a horizon line.
Perspective	Perspective refers to the perceived space and depth in 2Dimensional art.
Symmetry	Symmetry in art is when the elements of a painting or drawing balance each other out. This could be the objects themselves, but it can also relate to colours and other compositional techniques. It might simply mean the two sides of a portrait appear the same.
Asymmetry	Something asymmetrical has two sides that don't match. In art this might result from accurate observation but might also be exploited to 'unsettle' the viewer. In composition, such as the rule of thirds or golden section, it is not unusual to use asymmetry to develop ideas of beauty and aesthetics.
Profile	In portraiture, the 'profile' refers to a side view of the face.
Aesthetics	Aesthetics is a branch of philosophy that examines the nature of art and our experience of it. An aesthetic experience could include a mixture of feelings and determines our appreciation of beauty and taste. It is complex, relies heavily on objective rules, and often influences our decisions and choice. Since virtually everything made or caused by humans will have occurred through a conscious or unconscious design process, you are directly or indirectly influenced by art every day. Clothes, phones, cars, food, websites, buildings...



Grid method of drawing.

Links to further resources: <https://www.npg.org.uk/>**Thinking, questioning and communicating your visual intelligence using practical skills in ART.**

You will be able to organise your thoughts, understanding and expertise in **ART** this term under the following headings.

Skills: *Measuring, proportion, form and application of tone, scale...*

Contexts: *History, reasoning, genre, culture, responsibility, connections...*

Rules: *Values, flexibility, experimentation, organisation, prioritising...*

Audience: *Personal, commercial, ethics, morals, age, empathy, critique...*

Resolution: *Primary and secondary sources, scale, representation, commitment, ending...*

Communication: *Representation, truth, evaluate, talk, manage emotions...*

Legacy: *Materials, honesty, likeness, heritage, culture, accuracy...*

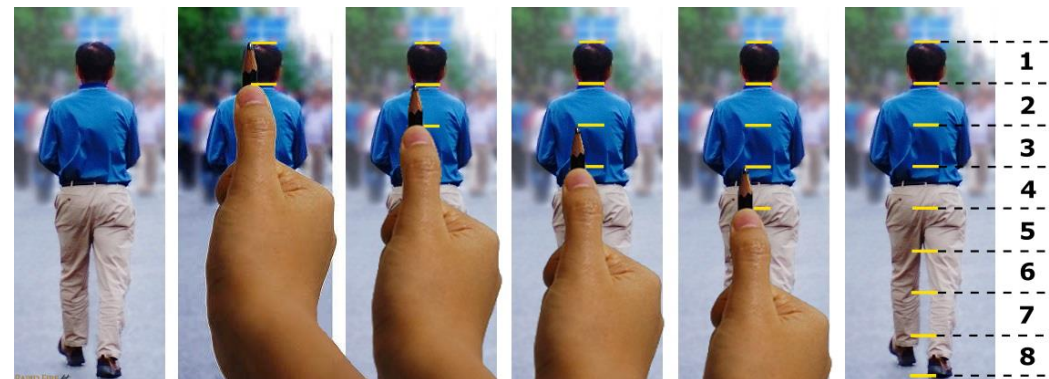
Throughout the year we will be asking you to articulate (to say, explain and use), a number of **Personal, Learning and Thinking skills** to help you develop your knowledge and understanding. This term we will be asking you to reflect upon your **Self-Management**. i.e. How you respond to challenge, commit, persevere, organise, prioritise, anticipate, change and manage emotions.

Further thinking (why does this matter?):

On a functional level, it is important to us all that we discern the relative sizes and value of things through approximation.



In a more subtle sense, this is fundamental to our understanding of specific distance, scale, proportion, space and its representation. Measurement need not come from using a ruler but from assessing spacial relationships.



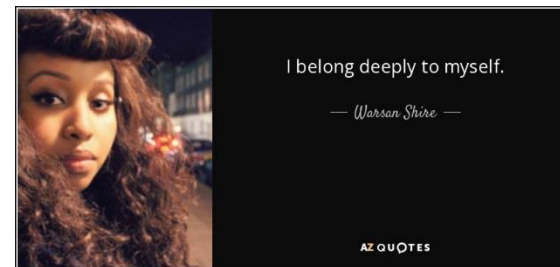
Use a measurement to achieve accurate proportions.

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Topic: Devising with the theme of refugees.

- I need to know: How to undertake background research to help communicate ideas. Create a sensitive performance as part of an ensemble.

Key Words	Definitions
Still image	A picture you create in a group.
List Poem	A poem created from list of objects.
Mirroring	Performing the same movements as another actor, at the same time.
Flocking	Moving as a group.
Unison	Performing in harmony with others.
Ensemble	Working as a larger group.
Cross-cutting	Performing two scenes together.
Flashback	A scene showing past events.
Flashforward	A scene showing future events.
Dramatic tension	A moment where the audience are on the "edge of their seats".
Sound-scape	Creating different sounds together.
Narration.	Telling a story.



Wider Reading: Look at the following websites:

Refugee council and refugee action.

Read "Refugee Boy" by Benjamin Zephaniah.

Research "Mountain Language" by Harold Pinter.

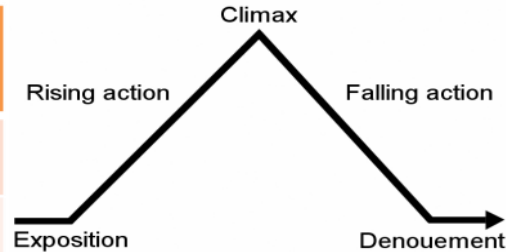
What We Do:

- Use original stories to devise a piece of drama with depth and sensitivity.
- Communicate a character's story to the audience, using a variety of drama techniques.
- The final piece uses more advanced drama techniques to create work that encourages the audience to think about a current issue.

Arrow Tasks: Considering the structure of the piece and its' impact on the audience.

Year 8 English Autumn Term 1: September - October

Vocabulary to create emotions	Definition
Uplifting	Inspiring happiness or hope
Joyful	Expressing great pleasure or joy
Hopeful	Feeling or inspiring optimism for the future
Despair	Complete loss of all hope
Distress	Extreme anxiety, sorrow or pain
Melancholy	A feeling of pensive sadness with no obvious cause
Optimistic	Looking at the positive aspects of life
Pessimistic	Looking at the negative aspects of life
Pensive	Thoughtful mood
Frustrated	Feeling of annoyance
Inferior	Lower in rank status or quality
Sentimental	feelings of tenderness, sadness, or nostalgia
Powerful	Having great power or strength
Insignificant	Too small or unworthy to be considered important
Nostalgia	A longing for the past



Terminology	Definition
Freytag's narrative structure	Exposition, Rising Action, Falling Action, Climax, Resolution
Exposition	a comprehensive description and explanation of an idea or theory:
Rising Action	is a series of relevant incidents that create suspense, interest and tension in a narrative
Falling Action	is what occurs directly after the climax
Climax	the most intense, exciting, or important point of something; the culmination
Resolution	the action of solving a problem or contentious matter
Cliff-hanger	that leaves the character in a seemingly impossible situation
Withholding information	suppress or hold back (an emotion or reaction or event in a story).
Plot	the main events of a play, novel, film, or similar work, devised and presented by the writer as an interrelated sequence.
Character	the mental and moral qualities distinctive to an individual in a story
Setting	the place or type of surroundings where something is positioned or where an event takes place
The Senses	Sight, Sound, Touch, Taste, Feel – embedding these elements into a story
Pathetic Fallacy	ascribing human conduct and feelings to nature
Symbolism	the use of symbols to represent ideas or qualities

SKILLS

Writing:

SPAG – Applying Spelling, punctuation and grammar effectively. Minimum expectations: capital letters, full stops, commas & apostrophes. Challenge: colons, semi-colons, parenthesis, exclamation marks, ellipsis

Sentence structures – applying a variety for effect – simple, compound and complex. **PANIC sentence openers** & being able to apply these.

Paragraphing – **TIPTOP** rules & being able to apply these effectively.

Freytag's narrative structure – able to apply the narrative structure

Exam Question Requirements

Either use the picture as stimulus for an engaging descriptive piece of writing

OR

Write a story inspired by the prompt given to you

Success Criteria for a well thought out story

1. Unusual, intriguing description
2. Showing not telling
3. Repetition
4. Pathetic fallacy
5. Symbolism
6. Confident style in your writing
7. Paragraph Links
8. Varying sentence types for effect
9. Remaining in the same person/tense Starting sentences in a variety of ways **PANIC**:

With a preposition, adverb/adjective, noun, 'ing' word (verbs), connectives

Punctuation Rules to Apply

Capital Letters: For Proper Nouns – Name of place/person & at the start of a sentence

Full Stops: end of a sentence that is not a question or statement

Comma: separates lists/phrases/words & when using sentence adverbs ('however', 'moreover' etc.) from the rest of the sentence, & to indicate a sub-clause in a sentence

Apostrophe: ~ to show that letters have been left out.

& to show possession.

Step-by-Step Success Criteria for creating a really engaging short story

Introduction

How can we make it engaging?

- withhold information
- short sentences for dramatic effect
- question to start
- open on a cliff-hanger – in the middle of the action
- use pathetic fallacy (the weather to set the mood)
- show what is happening don't just tell

Climax

Keep your reader gripped! Include one or more of these:

- a dramatic scene
- some kind of conflict, such as an argument (use direct speech?)
- some major change
- something unexpected
- something naughty or funny

Rising Action

Key points for interesting writing:

- don't give away too much information
- use imagery – personification, simile and metaphor
- use the senses throughout
- use adverbs to develop what feelings you want to create
- build a mood using pathetic fallacy
- vary sentence starters effectively: no I, the, it, she, he to open
- use PANIC for opening sentence starters – Preposition, Adjective/adverb, Noun, "Ing"-words (active verbs), Connective

Conclusion

End powerfully:

- link closely to the rest of your story
- maybe resolve the problem...
- or leave it on a cliff-hanger
- leave your reader with something memorable
- use a punctuation feature: ellipsis, question or exclamation mark

Vocabulary

Always be as adventurous and original as you can with your choice of words.

Tips for success: how to create a really intriguing description



Show, not tell...

- **do** focus on details rather than the general picture or overview
- **do** choose ambitious vocabulary – words you wouldn't usually use
- **do** use all the senses to describe what you see, hear, feel, smell and taste
- **do** use a range of adjectives, and a range of verbs...
- and a range of adverbs to intensify or exaggerate adjectives and verbs (usually adverbs end in ly)
- **do** give hints, slow reveals and descriptions from different angles



Don't do the obvious...

- **don't** use the first words you think of
- **don't** worry unnecessarily about the spelling of ambitious words: **don't** have a go at an unusual word, and check what it looks like
- **don't** repeat yourself – unless you're doing it for a specific effect
- **don't** use clichés – very common phrases which everyone uses

Topic: Good and bad; right and wrong: How do I decide?

I need to know:

- How Humanists make decisions and apply this to moral dilemmas.
- Key terminology associated with moral issues.
- What the golden rule is and to explain the impact it could have on daily life.
- The Christian teachings on living the moral life.
- Islam and the morality and the act of giving
- The Five Moral precepts of Buddhism.

**Key Words and Definitions** (*Key concepts used in GCSE)

- **Ethics** - Involves questions of right and wrong. It is about following accepted rules of behaviour.
- **Morality*** - standards which determine whether something is right or wrong.
- **Relative Morality** - moral standards that are flexible depending upon the circumstances.
- **Absolute Morality** – morals standards are either right or wrong. They do not change despite circumstance. For example, stealing is always wrong.
- **Utilitarianism** – the belief that a good act is one that brings the greatest good for the greatest number.
- **Golden Rule** – The principle of treating others how you want to be treated.
- **Qur'an** - that which is read or recited'. It is the Divine book (the most important Muslim sacred text) revealed to the Prophet Muhammad: Allah's (God) final revelation to humankind.
- **Sunnah** - The second most important source of wisdom for Muslims. It contains the way Muhammad lived his life.
- **Hadith** - A book which contains the words and teachings of Muhammad. Muhammad was said to be kind, compassionate and have wisdom.
- **The Ten Commandments** – A list of commandments/rules from the Old Testament.
- **The Sermon on the Mount** – Jesus's most significant sermon giving guidance on how to live a moral life.
- **Buddha** – the 'enlightened one'.

Humanism

- Humanists do not believe in **God**
- They believe that **science** provides answers to life's big questions
- They believe that people should use logic and reason to make **decisions**
- Humanists will weigh up the amount of happiness and pain caused before deciding to do something.

'All human beings are born free and equal in dignity and rights.' The Universal Declaration of Human Rights.

Christianity and Morality

Many Christians follow the Ten Commandments. Today many Christian believers focus on the teachings of Jesus from the New Testament. Jesus said there were two greatest commandments... *'Thou shalt love the Lord thy God with all thy heart, and with all thy soul, and with all thy mind. ... And the second is like unto it, Thou shalt love thy neighbour as thyself.'* Matthew 22:36-39.

The Sermon on the Mount (Matthew 5-7) – This was Jesus' most famous sermon giving guidance to people on how live a moral life.

The Golden Rule

The Golden Rule is the principle of treating others as you want to be treated. It is a rule that is found in many religions and cultures.

'Do unto others as you would have them do unto you.' Matthew 7:1

**Islam and Morality**

- Any action that is morally good benefits society. Any action that is morally bad, does not benefit society.
- Muhammad said a person can reach the best levels in paradise by having a good moral character. To reach those levels a person has to be a good devout Muslim who keep the duties (such as the Five Pillars of Islam), but also follows a moral code which best them treat others with respect and kindness.
- Muslims follow virtues from the Islam moral code.

Buddhism and Morality

Buddhists follow the teachings of the Buddha. This includes the Middle Way which has three parts to it:

1. Wisdom – Buddhists need to recognise that everything changes, and things are interdependent.
2. Morality – the Buddhist moral code for living. See the Five precepts on the next page.
3. Mental training – usually meditation.

Arrow Tasks – You could enhance your learning by visiting one of the suggested websites on the next page. Evaluation question challenges – Can anyone be of good moral character all the time? 'Anyone can give to those less fortunate.' Do you agree?

Topic: Good and bad; right and wrong: How do I decide?

The Ten Commandments

1. Thou shalt have no other gods before me.
2. Thou shalt not make unto thee any graven image.
3. Thou shalt not make the name of the Lord God in vain.
4. Remember the Sabbath day to keep it holy.
5. Honour thy father and thy mother.
6. Thou shalt not kill.
7. Thou shalt not commit adultery
8. Thou shalt not steal.
9. Thou shalt not bear false witness against thy neighbour.
10. Thou shalt not covert anything that belongs to thy neighbour.

Buddhists follow the teachings of the Buddha and try to behave in a way that affects their environment positively. This includes the Five Moral Precepts which gives guidance on living a moral life:

1. Do not harm any living being.
2. Do not steal.
3. Respect Each other.
4. Speak kindly of others
5. Avoid actions that are harmful to your body and mind.

Buddhists may also try to follow the Noble Eightfold Path (the Middle Way): Right understanding, right intention, right speech, right action, right livelihood, right effort, right concentration and right mindfulness.

The Virtues of the Muslim Moral Code

Respect , Charity, Honestly (telling the truth), Tolerance (accepting others as they are), Kindness, Justice, Forgiveness (moving on from a wrong someone has done you), Modestly and humility (Not being proud and arrogant), Decent speech (not hurting others by what you say), Trustworthiness (able to be relied upon), Patience (for example, not losing one's temper when delayed)

The Five Pillars of Islam

One of the ways Muslims might try to live a moral life is to follow the Five Pillars of Islam which are five special duties...

- Shahadah - Believing and saying the words - "There is no god except Allah, Muhammad is the messenger of Allah".
- Salat - Praying five times a day, in the correct way.
- Sawm - Not having anything to eat or drink during the month of Ramadan during daylight hours.
- Zakah - Giving 2.5% of their money to help the less fortunate.
- Hajj - This is making a pilgrimage to Makkah at least once in your life, if it can be afforded.

Muslims and the act of giving

- Not only do Muslims give for Zakah but they may also give through Khums. This is paid by Shi'a Muslims and is a 20% tax on business profits paid once a year. It is to be spent for the good of Allah. Sadaqah is voluntarily giving – more like charity. It doesn't have to be money but can also be time.

Links to further resources: <https://www.youtube.com/watch?v=PDxKxnVZtgo> <https://www.youtube.com/watch?v=SbDUm9yzPwM> <https://humanists.uk/> <https://www.youtube.com/watch?v=9tpL1K8ZqrU> <https://www.youtube.com/watch?v=Ze7w3-BL3OM> <https://www.truetube.co.uk/> - excellent clips linked to this topic!

Topic: Je suis branché

I need to be able to: recognise and talk about television programs, films and reading. I can use -ir, -re and -er verbs in the present tense. I can use and recognise some verbs in the perfect tense. I can recognise and use some verbs in the imperfect tense.

Key Words	Definitions
Verb	Words which tell you the action
Subject pronouns	Words that tell you who is doing the action.
Noun	A place, person or a thing.
Gender	In French, nouns and adjectives can be either masculine or feminine.
Adjective	Words which describe nouns. In French adjectives are the same gender as the noun which they describe.
Definite article	'the'
Indefinite article	'a' 'some'
Singular	One
Plural	More than one
Positive phrase	'is', 'do' 'does'
Negative phrase	'is not', 'does not', 'don't', 'never'
Possessive adjectives	My (in French, there are 3 forms; masculine, feminine and plural)
Perfect tense	What has happened/did happen

ESSENTIAL VERBS (in the **PRESENT TENSE**)Avoir = to have

J'ai = I have
 Tu as = You have
 Il a = He has
 Elle a = She has
 On a = we have

Nous avons = We have
 Vous avez = You have (pl)
 Ils ont = they have (m)
 Elles ont = they have (f)

Être = to be

Je suis = I am
 Tu es = You are
 Il est = He is
 Elle est = she is
 On est = we are

Nous sommes = We are
 Vous êtes = You are (pl)
 Ils sont = they are (m)
 Elles sont = They are (f)

Faire = to do

Je fais = I do
 Tu fais = You do
 Il fait = He does
 Elle fait = she does
 On est = we are

Nous faisons = We do
 Vous faites = You do (pl)
 Ils font = they do (m)
 Elles font = They do (f)

The IMPERFECT TENSE tells of a continuous action in the past.

There will be more topic specific vocabulary.

This will be given to you by your class teacher.

Regular -er verbs

Many verbs have an infinitive which ends in -er

Aimer- **to like**
 Adorer- **to love**
 Rater- **to miss**

-er verb endings change according to the subject pronouns;

Je regarde- **I watch**

Tu regardes- **You watch**

Il/elle/on regarde- **He/She watches**

Nous regardons- **We watch**

Vous regardez- **You watch**

Ils/elles regardent- **They watch**

Ir and re verbs**Finir**

Je finis- I finish
 Tu finis- You finish
 Il/elle/on finit- He/She/we finish
 Nous finissons- we finish
 Vous finissez- you finish
 Ils/elles finissent- They finish

Vendre

Je vends- I sell
 Tu vends- you sell
 Il/elle/on vends- he/she/we sell
 Nous vendons- we sell
 Ils/elles vendent- they sell

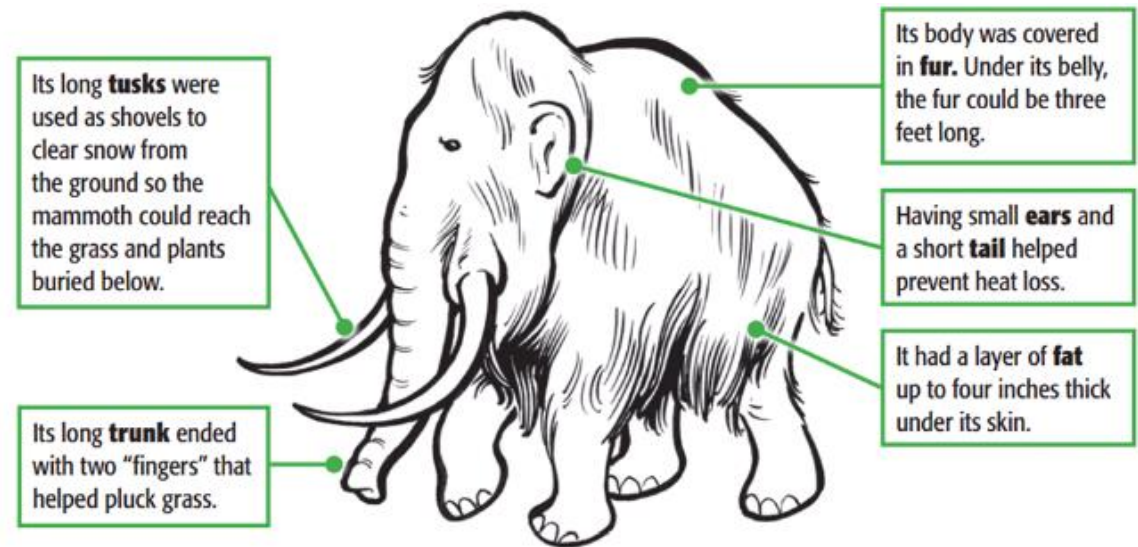
Arrow Task: Research and prepare a short presentation on popular free time activities in France. Compare and contrast with what you usually do, used to do and have done.

	français	anglais
1	Normalement, je regarde les émissions musicales à la télé.	Normally, I watch musical programmes on the television.
2	Quand j'étais jeune, je ne ratais jamais 'Match of the day'.	When I was young, I never used to miss 'Match of the day'.
3	J'aime bien les séries comme 'La Voix', je la regarde même si c'est un peu répétitif.	I like series such as 'The Voice', I watch it even though it's a bit repetitive.
4	Je ne regarde jamais les jeux télévisés sauf 'The Chase', je les trouve embêtant. J'aimais The Cube.	I never watch Game Shows apart from 'The Chase', I find them annoying. I used to like The Cube
5	La semaine prochaine, je vais regarder mon émission préférée 'Pointless', ça sera superbe.	Next week, I am going to watch my favourite program 'Pointless', it will be great.
6	Mais je préfère le cinéma, j'ai une passion pour le film !	But I prefer the cinema, I have a passion for film
7	Je suis fan de films fantastique, comme 'Fantastic Beasts'	I am a fan of fantasy films, like 'Fantastic Beasts'
8	En revanche, j'ai horreur des comédies, car ils sont ennuyeux.	On the other hand, I hate comedies, because they are boring.
9	<u>Bien que ce soit</u> quelquefois rigolo...	<u>Even though it is</u> sometimes funny...
10	La semaine prochaine, je vais aller au cinéma pour voir 'Toy Story 4, ça sera fantastique.	Next week, I am going to the cinema to see Toy Story 4, it will be fantastic.
11	La lecture ce n'est pas ma passion mais je lisais beaucoup quand j'avais cinq ans.	Reading is not my passion, but I used to read a lot when I was 5 years old.
12	En particulière, je déteste les romans d'épouvante.	In particular, I hate scary books.
13	La semaine dernière ma mère m'a acheté un BD de Tintin, c'était très intéressant.	Last week, my mother bought me a Tintin comic, it was very interesting.
14	Je lis environ 5 livres par jour aussi j'adore lire les blogs.	I read around 5 books per day, also I love to read blogs
15	Je vais sur l'internet tous les jours car je fais des quiz et je vais sur des blogs, je suis accro.	I go on the internet every day because I do quizzes and I go on blogs. I send messages to my friends, I am addicted.
16	Hier, j'ai surfé sur l'internet pendant 5 heures, ensuite j'ai tchatté sur WhatsApp	Yesterday, I surfed the internet for 5 hours, then I chatted on WhatsApp.
17	Je n'ai pas diné avec mes parents, j'ai mangé des frites dans ma chambre.	I didn't eat with my parents; I ate chips in my room.
18	Un peu plus tard, j'ai téléchargé des chansons	A bit later, I downloaded songs.
19	Demain, je vais aller sur Instagram et je vais poster des photos.	Tomorrow, I am going on Instagram and I am going to post photos
20	Et toi ? Qu'est que tu vas faire demain ?	Any what about you? What are you going to do tomorrow?

Topic: Climate

I need to know: The changes in climate over the last 10.000 years, natural causes of climate change, characteristics of the Woolly Mammoth and why it became extinct. World climate zones today. Is the climate of the UK changing?

Key Words	Definitions
Climate	The weather in a location over a long period.
Ice age	A glacial episode during a past geological period.
Glacier	A slowly moving mass or river of ice formed by the accumulation and compaction of snow on mountains or near the poles.
Climate change	A global or regional change in climate. Often used to refer to the changes which have taken place recently with global temperatures increasing.
Sun spot theory	Sun spots cause dark areas to appear on the sun. They show areas which are cooler than the surrounding surface. When they form more heat can be directed at Earth causing it to be warmer.
Volcanic eruption theory	When volcanoes erupt ash and gases are released into the atmosphere which block out the sun causing cooling.
Orbital theory	The Earth spins and wobbles on its axis which means there are times when the Earth is closer to the sun which causes the earth to be warmer and times when it is further away causing it to be cooler.
Climate zones	Different areas of the Earth have different climates.
Weather	The daily change in temperature and precipitation within the atmosphere.



Why did the Woolly Mammoth become extinct?

Noone really knows!

Some people think it was because the climate became warmer which changed the vegetation in the areas where the woolly mammoths lived. It changed from grasslands to forests and the woolly mammoths were not adapted to eat the different vegetation.

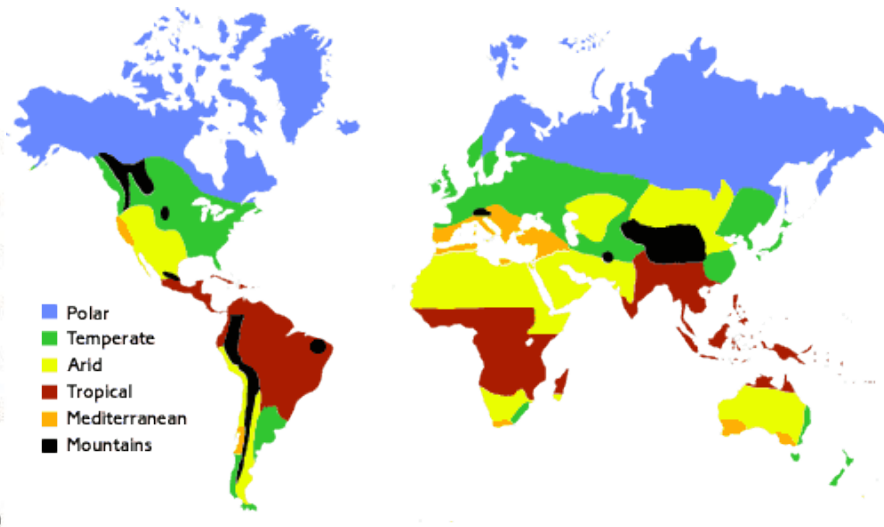
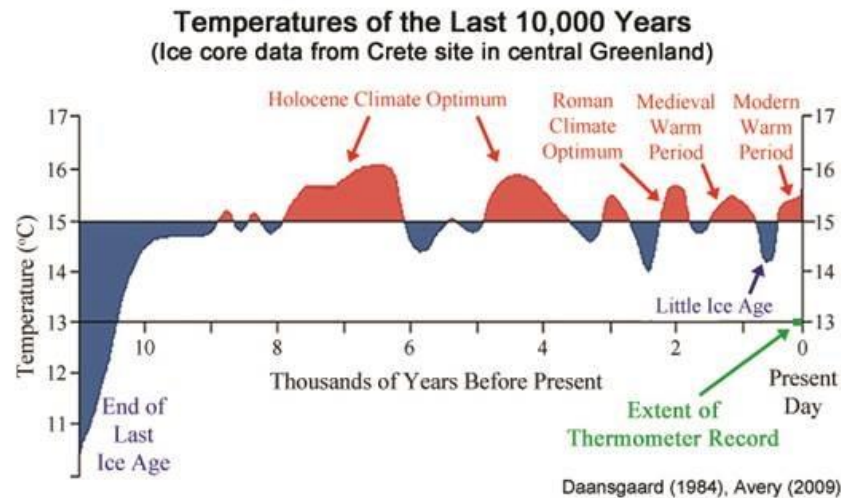
Some people think it was because the area they lived in became smaller because sea level rise flooded the land bridges they used.

Others believe they were hunted to extinction by sabre tooth tigers and humans.

It could be a combination of all of the above.

Topic: Climate

World climate zones today



Is the climate of the UK changing? Based on facts in this documentary <https://www.youtube.com/watch?v=Cq1oFhTINXE> first broadcast on the BBC in 2006

Temperature increases are based on 2006 levels

2020 predictions	2050 predictions	2080 predictions
Summer temperatures increase to around 29-30°C making heatwaves more likely and drought more frequent.	Temperatures overall will increase by 2.5°C. 30°C and above will be the “normal” summer temperature.	Overall temperatures will have increased by 4°C. Summer temperatures could reach 40°C.
Winter temperatures will be higher and rarely get below 0°C. The north and west of the UK will be wettest.	Winters will be milder and there will be less snow and more rain.	Winters are increasingly mild with temperatures only as low as 7-8°C. Snow is limited to a very small area of northern Scotland.

Arrow task

Are the predictions made in 2006 for the year 2020 accurate? Now we are in 2020 have these predictions come true? Use the additional link below to investigate further.

Links to further resources: <https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/research/ukcp/ukcp18-headline-findings.pdf>

[Return to contents page](#)

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Topic: Unrest and Rebellion

I need to know: In 1497 the Cornish rebelled against Henry VII due to economic factors and marched to London to see the King. In 1605 the Gunpowder Plot was an attempt to kill King James I and other members of the government due to religious factors. Both rebellions failed.

Key Words	Definitions
Rebellion	An attempt, usually violent, against a power to try and get something changed
Taxes	Money paid to the government to help run the country
Bodmin	Main town in Cornwall in 1497
Nobles	Rich and powerful land owners
Battle of Blackheath	Location in London where King Henry VII's army defeated the Cornish Rebels
Protestant	Religion of James I – the new King of England from 1603
Catholic	The religion of most of England in 1603
Spymaster	Person who has a network of spies who tell him what is happening
Parliament	Building where the government meets and runs the country
Guido Fawkes	The man who was captured with the Gunpowder underneath parliament
Hung, drawn and quartered	Method of execution used on Guy Fawkes
Framed	Being set up a blamed for something you didn't do

	<i>Cornish Rebellion</i>	<i>Gunpowder Plot</i>
Date	1497	1605
King	Henry VII	James I
Leader	Michael Joseph (An Gof)	Robert Catesby
Cause	Increase in tax	Religious unfairness
Support	15-20,000	16
Aim	Reduce taxes	Kill the King and government
Other key people	Thomas Flamank Lord Audley	Robert Cecil (Spymaster) Lord Monteagle
Reason for failure	King's army too strong	The King found out about the plot
Consequences	The leaders were killed. Nothing changed for the Cornish	All those involved in the plot were killed. James continued to be unfair to the Catholics



Arrow Tasks: How significant is the Cornish Rebellion?

Is the Gunpowder Plot more significant than the Cornish Rebellion?

The artist wasn't present at the time of the plotter's meetings. Is the source still useful?

Links to further resources: <https://www.bbc.com/bitesize/guides/z9fk7ty/revision/1>

Topic: Computer Systems

I need to know: the different layers of computing systems: from programs and the operating system, to the physical components that store and execute these programs, to the fundamental binary building blocks that these components consist of. You will also learn about artificial intelligence and open source software.

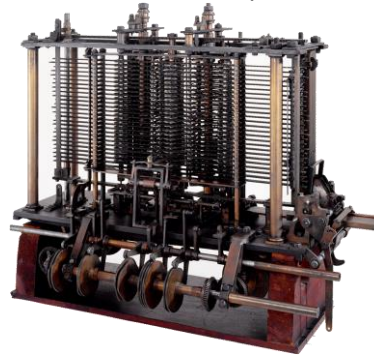
The Antikythera mechanism

- It was retrieved in 1900 from a Roman shipwreck off the coast of Antikythera island.
- It was constructed in the 1st or 2nd century BC.
- We now know that it was a complex geared mechanism that could predict solar eclipses, as well as the position of the moon and known planets.



Babbage's Analytical Engine

- Babbage (1837) conceived of a programmable machine that would perform calculations, as specified by instructions on punched cards.



Modern computers

- Receive an input, processes it, produces output
- General-purpose: designed to automate any process, as specified by a program
- The data and instructions to be performed can be stored in memory.



Your software

You use programs for every task that you perform on your computer.

- The word **software** simply means **programs**.



The **physical components** of a computing system are called **hardware**. Hardware is any component of a computing system that you can touch

- Processor
- Memory
- Storage
- Graphics processor
- Connections

The **storage** (secondary memory) is the set of components that **stores** programs and data. Storage is **persistent**: it retains its contents when the power is off.

- Hard disk drives (HDD)
- Solid-state drives (SSD)
- USB flash drives
- USB sticks
- SD cards

Topic: Computer Systems

The **main memory** is the component that **stores** the programs and data **currently in use**. Memory is **volatile**: its contents are lost when the power is off.

Terminology: The main memory is commonly referred to as **RAM** (random-access memory).

- This is what the main memory looks like in desktops and laptops.
- Sometimes, memory is integrated with other components, rather than being a separate component.



The **processor** is the component that **executes** program instructions.

An instruction may:

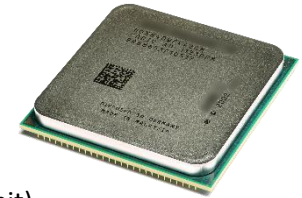
- Perform arithmetic or logic operations on data
- Perform input/output of data
- Control program flow

Terminology: Commonly referred to as the **CPU** (central processing unit).

- This is what the processor looks like in desktops and laptops.
- Sometimes, the processor is integrated with other components, rather than being a separate component.

How it works with other components

- Instructions are **fetch**ed one by one from memory into the processor, along with any required data.
- The processor **decodes** and **executes** each instruction.
- Any resulting data is moved into memory.



The **operating system** is a set of programs that controls the operation* of a computing system.

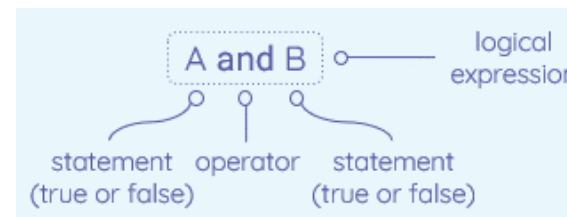
- Program execution
- Memory management
- File system organisation
- Input and output
- Communication
- Graphical user interface



There are three fundamental logical operations:

- not (inversion)
- and (conjunction)
- or (disjunction)

Logical operations operate on statements that are **true** or **false**.



What is **artificial intelligence**?

- Any machine that performs tasks that typically require intelligence in humans

Applications of AI	Moral considerations
Self-driving cars	Who is responsible in an accident? (Accountability)
Medical diagnosis	How can decisions be explained? (Transparency)
Banking Detecting fraud Approving loan & mortgage applications	How can we guarantee that machine training does not lead to discrimination? (Bias) How can decisions be explained? (Transparency)
Automation Performing tasks instead of humans	How will humans handle lower demand for labour? How will the benefits of AI be fairly distributed?

Arrow Tasks: [AI Experiments with Google](https://experiments.withgoogle.com/collection/ai) (experiments.withgoogle.com/collection/ai) is an impressive showcase of AI projects that you can explore. Make sure you check out [Quick, Draw!](https://quickdraw.withgoogle.com) (quickdraw.withgoogle.com), which is very well known.

What do I need to be able to do?

By the end of this unit you should be able to:

- Simplify any given ratio
- Share an amount in a given ratio
- Solve ratio problems given a part

Solutions should be modelled, explained and solved.

Keywords

Ratio: a statement of how two numbers compare

Equal Parts:: all parts in the same proportion, or a whole shared equally

Proportion: a statement that links two ratios

Order: to place a number in a determined sequence

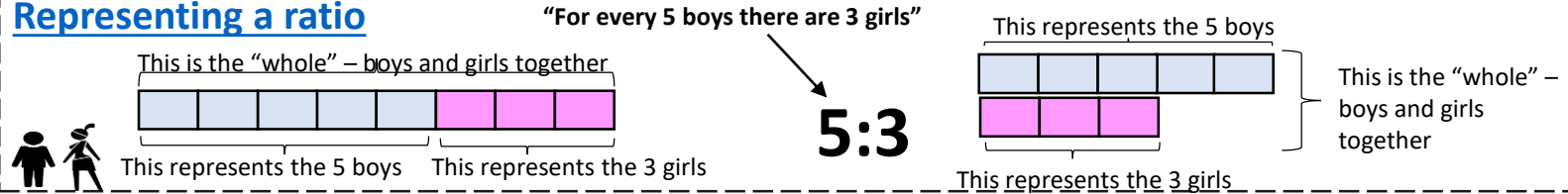
Part: a section of a whole

Equivalent: of equal value

Factors: integers that multiply together to get the original value

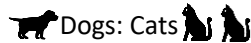
Scale: the comparison of something drawn to its actual size.

Representing a ratio



Order is Important

"For every dog there are 2 cats"



1:2

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

e.g. 2:1 would represent 2 dogs for every 1 cat.



Simplifying a ratio

Cancel down the ratio to its lowest form

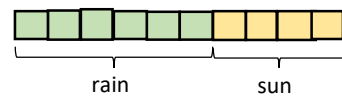
"For every 6 days of rain there are 4 days of sun"

6:4

÷ by 2 ↓

3:2

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



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

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

Ratio 1:n (or n:1)

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

Show the ratio 4:20 in the ratio of 1:n

The question states that this part has to be 1 unit.

Therefore Divide by 4

4 : 20
↓
1 : 5

This side has to be divided by 4 too – to keep in proportion

H the n part does not have to be an integer for this type of question

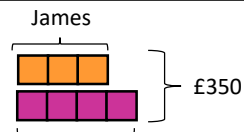
Sharing a whole into a given ratio

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

Model the Question

James: Lucy

3 : 4



Lucy

£350 ÷ 7 = £50

□ = one part = £50

Find the value of one part

Whole: £350

7 parts to share between (3 James, 4 Lucy)

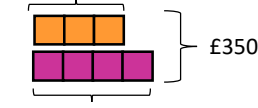
Put back into the question

James: Lucy

3 : 4

(x 50) £150 : £200 (x 50)

James = 3 x £50 = £150



Lucy = 4 x £50 = £200

Finding a value given 1:n (or n:1)

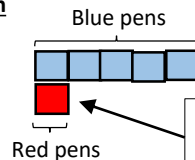
Inside a box are blue and red pens in the ratio 5:1.
If there are 10 red pens how many blue pens are there?

Model the Question

Blue : Red

5 : 1

□ = one part = 10 pens



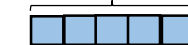
One unit = 10 pens

Put back into the question

Blue : Red

(x 10) **5 : 1** (x 10)
50 : 10

Blue pens = 5 x 10 = 50 pens



Red pens = 1 x 10 = 10 pens

There are **50 Blue Pens**

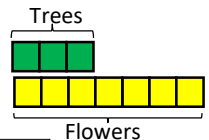
Ratio as a fraction



Trees:

Flowers

3 : 7



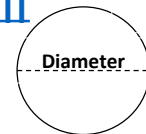
There are 3 parts for trees

Fraction of trees

Number of parts in group 3
Total number of parts 10

Tree parts 3 + Flower parts 7 = 10

π



Circumference

The ratio of a circles circumference to its diameter

What do I need to be able to do?

By the end of this unit you should be able to:

- Solve problems and explain direct proportion
- Use conversion graphs to make statements, comparisons and form conclusions.
- Understand and use scale factors for length

Keywords

Proportion: a statement that links two ratios

Variable: a part that the value can be changed

Axis: horizontal and vertical lines that a graph is plotted around

Approximation: an estimate for a value

Scale Factor: the multiple that increases/ decreases a shape in size

Currency: the system of money used in a particular country

Conversion: the process of changing one variable to another

Scale: the comparison of something drawn to its actual size.

Direct Proportion

As one variable changes the other changes at the same rate.

4 cans of pop = £2.40
 $\times 0.5$ 4 cans of pop = £1.20
 $\times 0.5$ 2 cans of pop = £0.60

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

This is a multiplicative change

4 cans of pop = £2.40
 $\times 3$ 12 cans of pop = £7.20

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

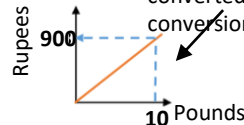
Conversion between currencies

£1 = 90 Rupees

Currency is directly proportional

For every £1 I have 90 Rupees

Currency can be converted using a conversion graph



$\times 10$

£1 = 90 Rupees

$\times 10$

£10 = 900 Rupees



Convert 630 Rupees into Pounds

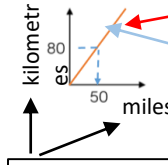
$\times 7$

£1 = 90 Rupees

\times

630 ÷ 90 = 7
 £7 = 630 Rupees

Conversion Graphs



Labelling of both axes is vital

This is always a straight line because as one variable increases so does the other at the same rate

To make conversions between units you need to find the point to compare – then find the associated point by using your graph. Using a ruler helps for accuracy. Showing your conversion lines help as a “check” for solutions

Ratio between similar shapes



The two rectangles are similar.

3 m 8 m

4.5 m ? m

Corresponding sides

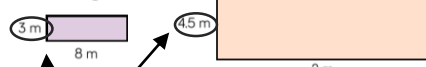
3 m : 4.5 m
 $\times 1.5$ 1 m : 1.5 m

8 m : 12 m
 $\times 1.5$ 1 m : 1.5 m

Note
 Simplify to the same ratio

Understand Scale Factor

The two rectangles are similar.



3 x 1.5 = 4.5

This is a multiplicative change

Use corresponding sides to calculate a scale factor

Missing length
 8 x 1.5 = 12m

Scale factor can also be calculated by:

Bigger corresponding side
 Smaller corresponding side

Small corresponding side

Big corresponding side
 $\times SF$
 $\div SF$

Draw and interpret scale diagrams

A picture of a car is drawn with a scale of 1:30

For every 1cm on my image is 30cm in real life

The car image is 10cm

Image : Real life
 1cm : 30cm
 $\times 10$ 10cm : 300cm

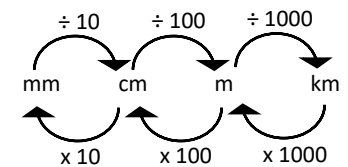


The car in real life is 210cm

Image : Real life
 1cm : 30cm
 $\times 7$ 7cm : 210cm



Interpret maps with scale factors



1 cm : 250 m

Ratios need to be in the same units

1 cm : 250m

1 cm : 25000cm

250 x 100 = 25000

For every 1cm on my map is 25000cm in real life.



Topic: Samba Music (Autumn Term 1)

I need to be able to: Create rhythmic diversity using Brazilian Samba instruments. I will understand the structure of Samba Music, and perform accurately as part of a Samba ensemble.

Key Words	Definitions
Solo	Features a single performer
Groove	Main rhythmic pattern
Call and response	Two distinct phrases of music
Power break	Instrumental or percussion section during a performance

Skills required:

Team ethos, confidence, leadership, awareness of cultural identity.

Rhythmic diversity, timbre & dynamics, structure & form, rhythm patterns.



A **samba** band normally consists of Tamborims , Snare drums (Caixa), Agogo bells, surdos, Ganzás / Chocalho (shakers), Cuíca, Timbal, Pandeiro, and the Repinique (often played by the leader for calls) whistles (at the beginning to give the **samba** a beat).

Arrow Tasks: Create your own call and response/power break and structural organisation.

Links to further resources: <https://study.com/academy/lesson/samba-music-history-and-instruments.html>

Key Word	Definition	Key Word	Definition
Health	A state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.	Skill related fitness	The skill related components of fitness contribute to your ability to successfully participate in sports and physical activity.
Fitness	The ability to meet/cope with the demands of the environment.	Speed	The max rate at which an individual is able to perform a movement or cover a distance in a period of time.
Warm up	Preparing our body for exercise to prevent injury.	Agility	The ability to move and change direction quickly at speed whilst maintaining control.
Anaerobic exercise	Where the energy needed for the exercise is provided in the absence of oxygen.	Balance	Maintaining the centre of mass over the base of support, remaining steady and not falling over.
Aerobic exercise	Where the energy needed for the exercise is provided by oxygen.	Cardiovascular Endurance	The ability of the heart and lungs to supply oxygen to the working muscles.
Breathing Rate	The number of breaths you take per minute	Flexibility	The range of movement possible at a joint
Gaseous exchange	Where Oxygen can enter the blood and carbon dioxide can be breathed out	Strength	The ability to overcome a resistance
Heart rate	The number of times your heart beats per minute.	Co-ordination	The ability to use different (two or more) parts of the body together smoothly and efficiently
Delayed Onset of Muscle Fatigue	The pain/stiffness felt in the days following strenuous exercise	Muscular Endurance	The ability of a muscle/muscle groups to undergo repeated contractions avoiding fatigue
Short term effects of exercise	The effects on the bodies systems as we exercise	Power/ explosive strength	The product of strength and speed
Long term effects of exercise	How the body systems adapt to exercise over time and become fitter.	Reaction time	The time taken to initiate a response to a stimulus
Health related Fitness	The health related-fitness components relate to how well the systems of your body operate.		



#TeamLiskeard
achieving **more** together

LSCC PE CLUBS Autumn Term

3.15pm – 4.15pm meet outside
the changing rooms

Monday – Football Club

Tuesday – Hockey Club + Fitness Club

Wednesday – Netball Club + Fitness Club

Thursday – Rugby Club

Open to all students, all years.

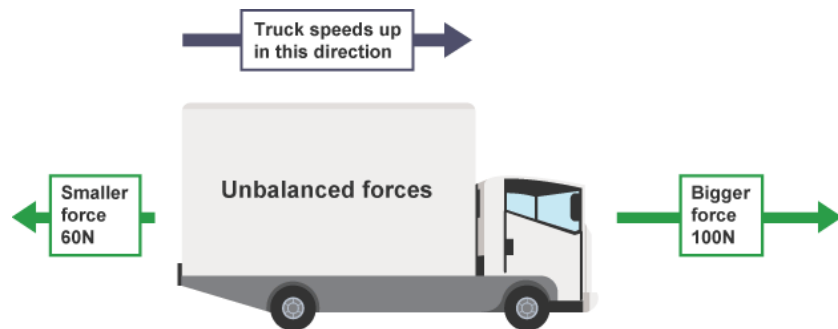
Arrow Tasks:

Try something new this term and join a different PE club or a community club
How many ways can you find to be active for more than 30 minutes each day?

Topic: Contact Forces

I need to be able to: explain whether an object is in equilibrium and how objects respond to being stretched and squashed

Key Words	Definitions
Equilibrium	State of an object when opposing forces are balanced.
Deformation	Changing shape due to a force
Linear Relationship	When two variables are graphed to show a straight line.
Newton	Unit for measuring force (N)
Resultant Force	Single force which has the same overall effect as all of the forces acting on an object.
Friction	A contact force which opposes motion.
Tension	A force extending or pulling apart.
Compression	A force squashing or pushing together.
Contact Force	A force that only acts when objects are physically touching.



↑Arrow Task: Why does it get easier to stretch 2 springs connected end to end (in series) than it is to stretch 2 springs connected side by side (in parallel)?

Investigating Hooke's Law

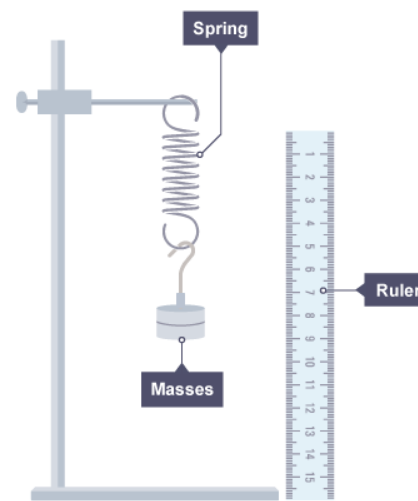
This is an example of a common experiment used to investigate Hooke's Law. It should help you understand how to work scientifically.

Aim of the experiment

To investigate how adding mass to a spring affects its extension.

Method

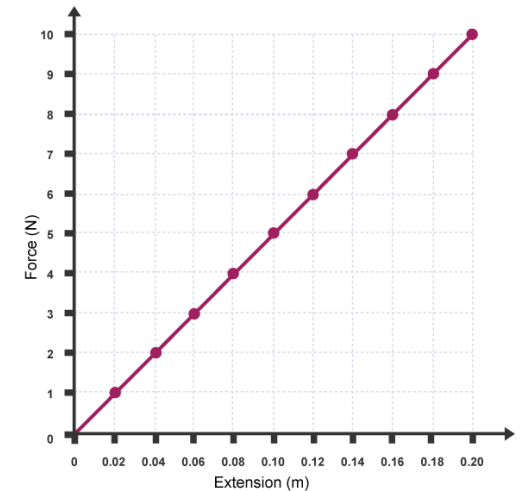
1. Set up the apparatus as in the diagram
2. Add a 10 g mass to the holder and record the spring length.
3. Add another 10 g mass and record the new spring length.
4. Take away the previous spring length from the new length to calculate the extension (the difference).
5. Repeat by adding 10 g masses until 100 g is reached.



An experiment to investigate Hooke's Law

Why does it matter?

Imagine a world without friction. Write a short story about what your normal day would be like if the force of friction didn't exist.



A force-extension graph for a spring

Using Hooke's Law

In a force-extension graph:

- the steeper the line, the stiffer the spring
- the area under the line is the **work done** (energy needed) to stretch the spring.

Links to further resources: <https://www.bbc.com/bitesize/guides/zttfyrd/revision/1>

↑ https://www.cyberphysics.co.uk/topics/forces/springs_series_parallel.html

Topic: Elements

I need to be able to: Compare the properties of elements with the properties of a compound formed from them

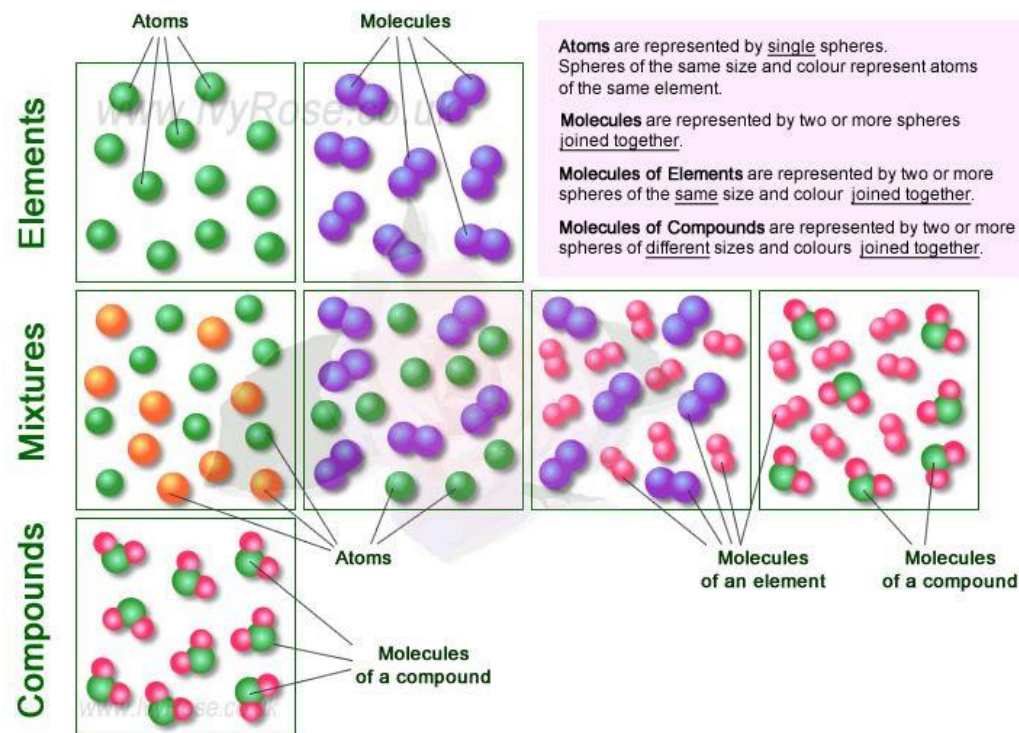
Key Words	Definitions
Elements:	What all substances are made up of, and which contain only one type of atom.
Atom:	The smallest particle of an element that can exist.
Molecules	Two to thousands of atoms joined together. Most non-metals exist either as small or giant molecules. Compound: Pure substances
Compound:	Pure substances made up of two or more elements strongly joined together.
Chemical formula:	Shows the elements present in a compound and their relative proportions.
Polymer	A molecule made of thousands of smaller molecules in a repeating pattern. Plastics are man-made polymers, starch is a natural polymer.

Arrow Tasks:

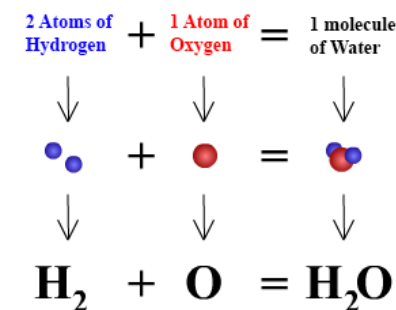
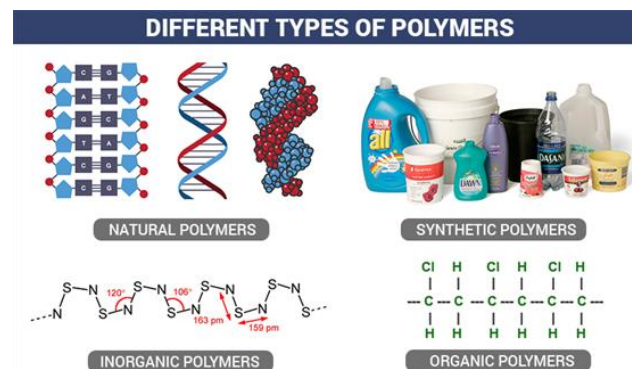
- Use particle diagrams to predict physical properties of elements and compounds.
- Deduce a pattern in the formula of similar compounds and use it to suggest formulae for unfamiliar ones.
- Compare and contrast the properties of elements and compounds and give a reason for their differences.
- Describe and explain the properties of ceramics and composites.

Why does it matter? Research the different elements, compounds and mixtures found in mobile phones.

<https://www.compoundchem.com/2014/02/19/the-chemical-elements-of-a-smartphone/>



Elements, Mixtures, Compounds and Atoms, Molecules - Illustration (c) IvyRose Ltd. 2011.



Links to further resources:

<https://www.bbc.com/bitesize/guides/zt2hvp4/revision/1>

Topic: Periodic Table

I need to be able to: Sort elements using chemical data and relate this to their position in the periodic table

Key Words	Definitions
Periodic table	Shows all the elements arranged in rows and columns.
Physical properties	Features of a substance that can be observed without changing the substance itself
Chemical properties:	Features of the way a substance reacts with other substances.
Groups	Columns of the periodic table.
Periods	Rows of the periodic table

Metals are generally found on the left side of the table, **non-metals** on the right.

Group 1 contains reactive metals called **alkali metals**.

Group 7 contains non-metals called **halogens**.

Group 0 contains unreactive gases called **noble gases**.

The **elements** in a group all react in a similar way and sometimes show a **pattern** in **reactivity**.

As you go down a group and across a period the elements show **patterns** in **physical properties**.

Before all the naturally-occurring elements were discovered, the **periodic table** was used to predict the chemical and physical properties of elements in the gaps on the **table**. ... The **table** is useful for modern students and scientists because it helps predict the types of chemical reactions that are likely for an **element**.

↑ Arrow Tasks:

Choose elements for different uses from their position in the periodic table.
Research data about the properties of elements and find similarities, patterns and anomalies.

Periodic Table of Elements

Groups: 1 2 3 4 5 6 7 8

Periods: 1 2 3 4 5 6 7

Key:

- relative atomic mass
- atomic number
- element symbol
- element name

Legend:

- hydrogen
- alkali metals
- alkali earth metals
- transition metals
- non-metals
- halogens
- noble gases

Why does it matter?

Look at the food labels for the food and drink found in your house. What elements does each item contain?

Links to further resources: <https://www.bbc.com/bitesize/guides/z84wjxs/revision/1>

<https://www.newscientist.com/article/mg14119123-900-the-periodic-table-was-chemistrys-most-important-breakthrough/>

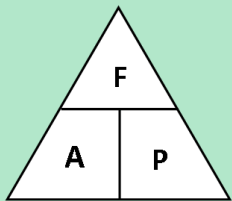
Interactive periodic table: <http://www.rsc.org/periodic-table/>

Topic: Pressure

I need to be able to: explain what causes pressure in a fluid and how that can be useful

Key Words	Definitions
Fluid	A gas or a liquid
Pressure	The ratio of force to the surface area the force acts over. Measured in N/m^2 .
Upthrust	The upward force that a fluid exerts on a floating object caused by the difference in pressure at the top and bottom of the floating object.
Atmospheric Pressure	The pressure caused by the weight of the air above a surface.

Force Area Pressure



$$\text{Pressure} = \frac{\text{Force}}{\text{Area}}$$

$$\text{Area} = \frac{\text{Force}}{\text{Pressure}}$$

$$\text{Force} = \text{Area} \times \text{Pressure}$$

↑ Arrow Tasks: Pressure in gases is related to their volume. Can you use ideas about pressure and volume to explain why scuba divers can get 'the bends' (decompression sickness) if they ascend from a dive too quickly?

Why does it matter?

Balancing weight and upthrust is a key part of ship design and knowing what will and won't float is crucial. Can you predict which fruits and vegetables will float and which will sink?

Ask a grown up, then grab some fruits and vegetables from your kitchen or buy a selection from the shop. You can test as many as you'd like.

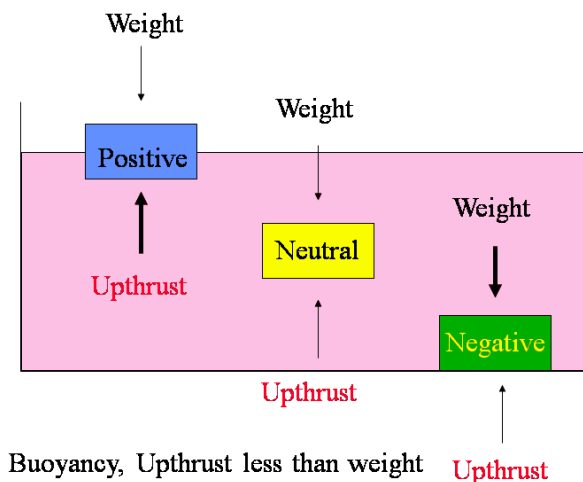
After you've collected your produce, create a **hypothesis**, your best guess as to what's going to happen. For each vegetable and fruit, guess whether it will float or sink.

Begin by placing a jar into a pan. Fill the jar with water. Make sure that no water goes into the pan.

Now, weigh your first fruit or vegetable. Note its mass in grams.

Carefully lower your fruit or vegetable into the jar. Does it float or sink? Make a note of the results.

Is there a link between the masses of what floats and what sinks? Did you predict correctly?



Pressure acts in a **fluid** in all directions. It increases with depth due to the increased **weight of fluid**, and results in an **upthrust**. Objects sink or float depending on whether the **weight** of the object is bigger or smaller than the **upthrust**.

Links to further resources: <https://www.bbc.com/bitesize/guides/zssbgk7/revision/1>

<https://www.bbc.com/bitesize/articles/zytqi6f>

"Why does it matter?" <https://www.education.com/science-fair/article/fruits-vegetables-denser-than-others/>

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Topic: Mis vacaciones

I need to be able to: Talk about a past holiday in detail, give opinions and reasons in the past; use a range of verbs in the preterite (past) tense; use a range of verbs in the near future tense

Key Words	Definitions
Verb Infinitive	Words which tell you the action Original form of verb ending in –ar,-er,-ir
Subject pronouns	Words that tell you who is doing the action.
Noun	A place, person or a thing.
Gender	In Spanish, nouns and adjectives can be either masculine or feminine.
Adjective	Words which describe nouns. In Spanish adjectives are the same gender as the noun which they describe.
Definite article	‘the’
Indefinite article	‘a’ ‘some’
Singular	One
Plural	More than one
Positive phrase	‘is’, ‘do’ ‘does
Negative phrase	‘is not’, ‘does not’, ‘don’t’, ‘never’
Possessive adjectives	My (in Spanish, there are 2 forms; singular and plural – Mi /mis
Preterit tense	This tells of a completed action in the past
Near Future tense	This tells of an action that is GOING to happen.

SER = TO BE

Fui = I was
 fuiste = you (sing.) were
 fue = He/she/it was
 fuimos = we were
 fuisteis= you were (pl)
 fueron = they were

There will be more topic specific vocabulary.

This will be given to you by your class teacher.

IR = TO GO

Fui = I went
 fuiste = you (sing.) went
 fue = He/she/it went
 fuimos = we went
 fuisteis= you (plural) went
 fueron = they went

NOTICE THAT SER AND IR ARE THE SAME IN SPANISH IN THE PAST!

Examples of verbs in the preterit tense:

Jugué = I played
 Compré = I bought
 Encontré = I met
 Saqué fotos = I took photos
 Descansé = I rested
 Nadé = I swam
 Monté en bici = I rode a bike
 Vi = I saw

Arrow Tasks: Find out about popular Spanish holiday resorts. Why are they popular? What can you do there? Prepare a short presentation, use Spanish and English.

	español	inglés
1	¿Adónde fuiste de vacaciones?	Where did you go on holiday?
2	Ibamos a Italia pero el verano pasado, fui a España.	We used to go to Italy but last year, I went to Spain.
3	Fui con mis padres y mis hermanos.	I went with my parents and siblings.
4	Viajamos en coche pero el verano pasado fuimos en avión. ¡Qué divertido!	We used to travel by car and plane but last summer we went by 'plane. What fun!
5	¿Qué hiciste en tus vacaciones?	What did you do on holiday?
6	Bueno, por la mañana, descansé en la playa y por la tarde nadé en el mar.	Well, in the morning, I relaxed on the beach and in the afternoon I swam in the sea.
7	Por la noche, comí en un restaurant y luego bailé en la discoteca. ¡Qué guay!	In the evening, I ate in a restaurant and then I danced in the disco. How cool!
8	¿Cómo te fue?	How was it?
9	Fue genial y flipante. Me encantó.	It was great and awesome. I loved it.
10	Lo único malo fue que perdí mi pasaporte y comí algo malo y vomité. ¡Qué lástima!	The only bad thing was that I lost my passport and I ate something bad and vomited. What a shame!
11	¿Adónde vas de vacaciones normalmente?	Where do you normally go on holiday?
12	Generalmente, voy a Francia con mi familia.	Generally, I go to France with my family.
13	¿Qué hiciste ayer?	What did you do yesterday?
14	Primero, fui al cine con mis amigos, me gustaba las comedias pero ahora prefiero las películas de terror	First, I went to the cinema with my friends, I used to like comedies but now I prefer horror films.
15	Después, jugué en línea con mi primo. Jugaba a los videojuegos con mi hermano cuando era más joven.	After, I played online with my cousin. I used to play computer games with my brother when I was younger.
16	Finalmente, monté en bici con mi hermano. Fue entretenido.	Finally, I rode my bike with my brother. It was entertaining.

Topic: Food

I need to be able to: understand how the functional properties (science) of ingredients affect the physical, and sensory qualities of a recipes . To ensure you can design a balance meal using ingredients to supply protein, carbohydrate, fat, vitamin and minerals. To ensure that you take into account your knowledge about diet related diseases.

Key word	Definition
Type 2 diabetes	A health problem when too much sugar is consumed on a regular basis.
Coronary heart disease	A health problem when too many calories or saturated fat is consumed on a regular basis.
Constipation, diverticular	A diet low in fibre can cause these dietary related diseases.
Obesity	A health problem when you are not eating too many calories for the amount of energy expended.
Shortening	Rubbing fat into flour prevents long chains of gluten forming resulting in a short crumbly pastry texture.
Proving	Time allowed for the yeast to breathe out carbon dioxide gas to make bread rise.
Glazing	To apply an egg and milk mixture to improve the appearance of a product (shiny brown surface).

Arrow Tasks -

* Explain how the ingredients are produced and link to the affect upon the environment. Are they sustainable? Could alternatives be used? Explain why. Try to link to environmental pollution, the effect of deforestation, use of fossil fuel to power or make the materials.



Rolling—To make a dough flat by rolling with a rolling pin.

Quality control—level and the thickness stated for the recipes.



Reduction sauce— to simmer a sauce to evaporate the water to increase the thickness and intensity of the flavour. **Quality control**—thick rich viscosity.



Stir fry—to fry using a small amount of oil (healthy low fat cooking method. FIRE RISK

Quality control—slightly crunchy



Coagulation of egg—heat causes the amino acid protein bond to reform and go from liquid to solid.

Quality control—set structure



How to use industrial equipment correctly to reduce making time.

Quality control—smooth cake batter and creamy topping.



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Topic: Treasure Box

I need to be able to:

- learn about the Art deco design era and to show the influence of Art Deco style in designing the box lid.
- learn about CAD (computer aided design) and develop CAD skills through designing using 'Techsoft 2D design' software and learn about CAM (computer aided manufacture) as knowledge of how the laser cutter works affects the design stage.
- Develop practical skills with particular emphasis on detail and finish.

Stages of the Design Process:

Context	Design Brief	Task Analysis	Research
Investigation	Specification	Design & Development	
Making	Testing	Evaluation	

Key Words

* Design process



*

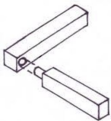
CAD



* CAM



* Dowe



* QCC

QUALITY CONTROL



Definitions

The steps a designer/maker goes through from identifying a problem and need for a product to its final making, testing and evaluating and improving.

Computer Aided Design is a vital tool for a Product Designer. CAD software allows a designer to quickly produce 3D images/ designs. The design can then be rotated, colour rendered and analysed/evaluated.

Computer Aided Manufacture: once a prototype design has been produced, it can be manufactured on a CNC machine or Rapid Prototyping machine. Products and components can be made repeatedly to the same high standard. CAM is much faster than machining by human control / by hand. Large quantities can be produced 24 hours a day, reducing the final cost/price.

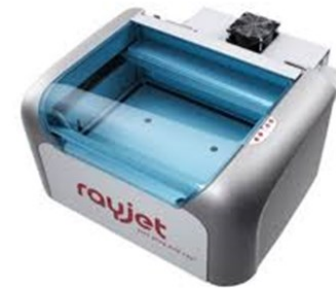
Dowel joints are used to strengthen a joint. It can also be made to swivel, allowing a lid to open and close on a horizontal plane.

Quality Control Checks are used in all areas of manufacturing to check quality against a set standard or a specification. In industry Quality Control requires constant inspection throughout the manufacturing process in order to detect products which are not up to the required standard.

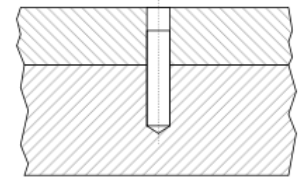
New materials, tools and equipment used in the treasure box project



Techsoft 2D design Software used to produce the surface design for the lid



Rayjet 50 Laser engraver/cutter used to engrave and cut the lid design



The lid could open using a swivelling dowel joint



The treasure box design will be based on Art Deco—a design era that spanned from 1925—1950



Example treasure boxes



Arrow Task:

Design and make a wooden hinge.

Here is just one example...



Link to further resources:

<http://www.technologystudent.com>
<http://www.mr-dt.com/>
http://wiki.dtonline.org/index.php/Main_Page

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Topic: Eco Bag

Who is Jasper Johns?

An American painter (born May 15, 1930). His style of work is often very **abstract** and **expressive**. Early pieces of his work were composed on a large scale, using simple graphics such as letters and numbers.



Arrow Task: Compare the environmental impact between a calico shopping bag, a rayon shopping bag and a nylon shopper.

Key Words

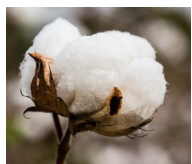
* Stencil



* Calico



* Natural fibres



* Man-made fibres

**Definitions**

A thin sheet of card with letters cut out of it, used to produce the cut design on the surface below by sponging paint through the holes.

A strong, coarse fabric made from the jute plant.

Fibres that have been produced by plants and animals. These fibres can be spun and then woven.

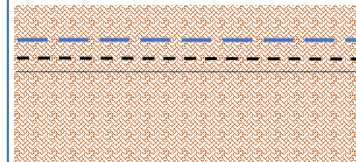
A type of fibre that is made artificially, such as polyester. These are often called 'synthetic'.

Stage 1



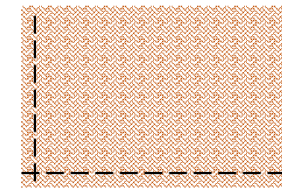
Firstly, get two pieces of calico and scrape paint on one side in the style of Jasper Johns and then stencil the lettering.

Stage 2



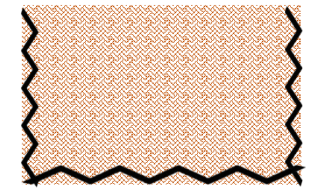
To create the top hem, fold the top of the bag 1.5cm and fold again. Then pin, tack and machine sew. Do this for the top of both panels.

Stage 3



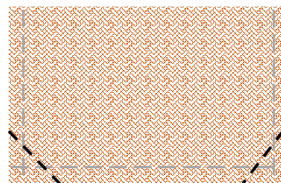
Then pin, tack and sew the two panels of the bag together, with the printed sides facing inwards.

Stage 4



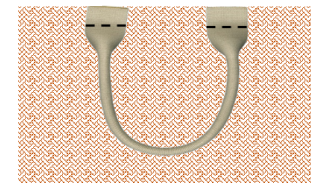
Using the sewing machine's zig zag setting, sew the sides and bottom of the fabric to stop it from fraying.

Stage 5



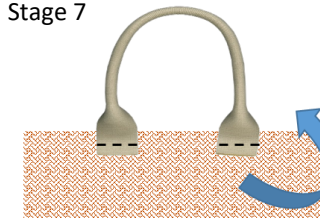
Pinch the two bottom corners and pull them to create a straight edge. Machine stitch along the straight line.

Stage 6



With the bag still inside out, sew the handle strap onto one side, in a downwards position. Then repeat on the other side of the bag.

Stage 7



Now turn the handles up the correct way and sew along the bottom so they are secure.

Stage 8



Turn the entire bag inside out so that the 'correct' side of the bag can be seen. Your Eco bag is now complete!

A Guide to Revision

We hope you find these pages about revision useful. You will need to use these skills throughout your time at school, from Year 7 all the way through to Year 13. Developing these skills early means they will become second nature and revision will become easy!

We want you to achieve the best possible results throughout your time at school and achieve results that will not only increase your life chances but also take you to the next step on your chosen career pathway. Speak to any one of your teachers for more advice on revision.

Points to remember

- Revision is re-looking at information you have learnt previously.
- The idea is that you know the information that will be tested and can remember it for the exam.
- Your attitude is important.
- You only fail if you give up.
- If you fail to plan, you plan to fail.

Believe in yourself, be positive.
If you think you can succeed you will.

Attendance

- Every lesson counts and your attendance is vital.
- Try your best in all lessons and make them work for you.
- It is what you are getting out of it that matters.
- This is YOUR result, so make it count.
- You will get out of it what you put in - so do your best.

Revision materials you'll need



These are to help you organise your revision and keep everything in one place.

Top Tip: Revision materials are available from the school shop in the library.

You can also buy these items very cheaply from a local pound shop!

Revision Strategies

Revision Planner							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning							
Afternoon							
Evening							

- Plan your time – create a revision timetable
- Break revision into chunks
- Find a quiet space to revise



- Revise in 20 minute blocks
 - This is the optimum concentration time
 - Have a short break between blocks



- Avoid distractions!
 - Turn off your phone
 - Turn off the TV



Brain Dump

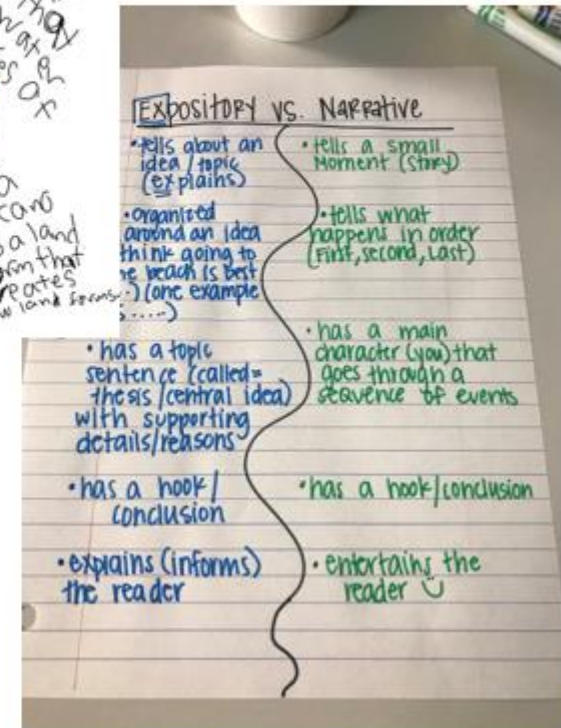
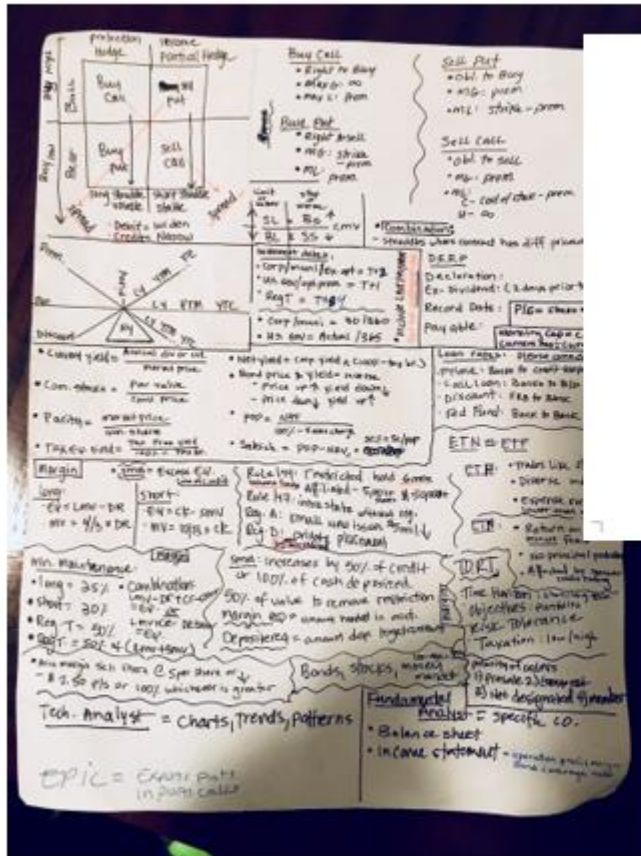
WHEN: beginning of 20 minute revision block

HOW:

- Take a blank piece of paper
- Write down (DUMP!) everything you know about the topic
 - No books
 - No notes
 - Be as messy as you like
- Time limit of 60 seconds
- Now revise the topic (15 minutes)
- Finally, go back to your DUMP and add everything you have learnt
 - Use a different colour pen

IMPACT: you should be able to add 7-15 new things to your DUMP

Examples of Brain Dumps



Top Tip: Repeat a brain dump regularly.

This will help identify which aspects of a topic you have **forgotten** to include. These are the areas you need to **focus on** when revising!

MIND MAPS

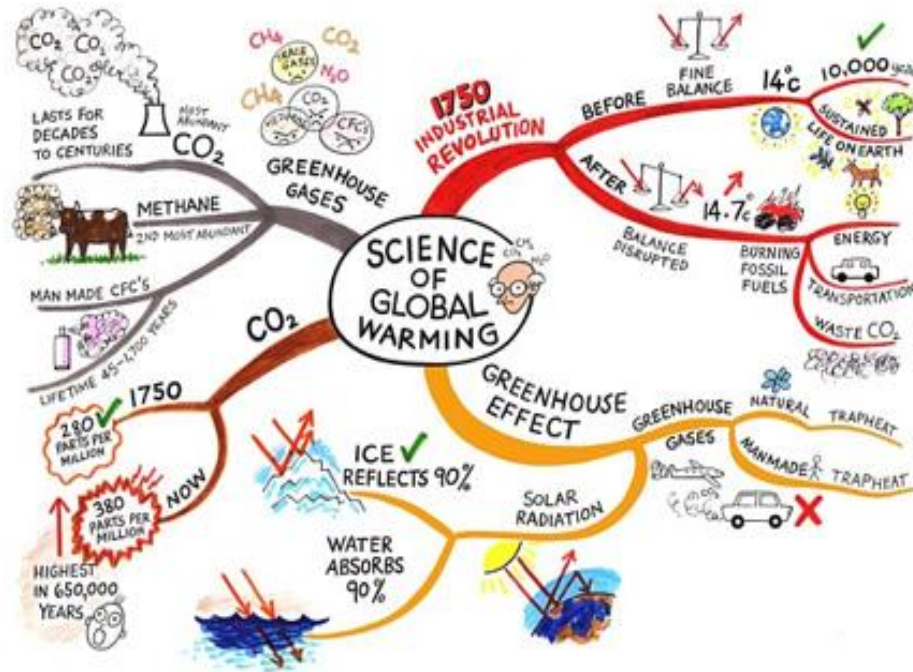
WHEN: to organise information from your exercise/text book.

HOW:

- Put the topic in the centre of a blank page
- Add big branches with the main ideas/themes of the topics
- Add small branches to these with more detail
- Try to write only 1 or 2 words per branch
 - Focus on the key points only
- Add an image to each branch (dual code)
- Revisit your mind map next time you DUMP

IMPACT: whole topic with the key ideas on a single page.

Examples of Mind Maps

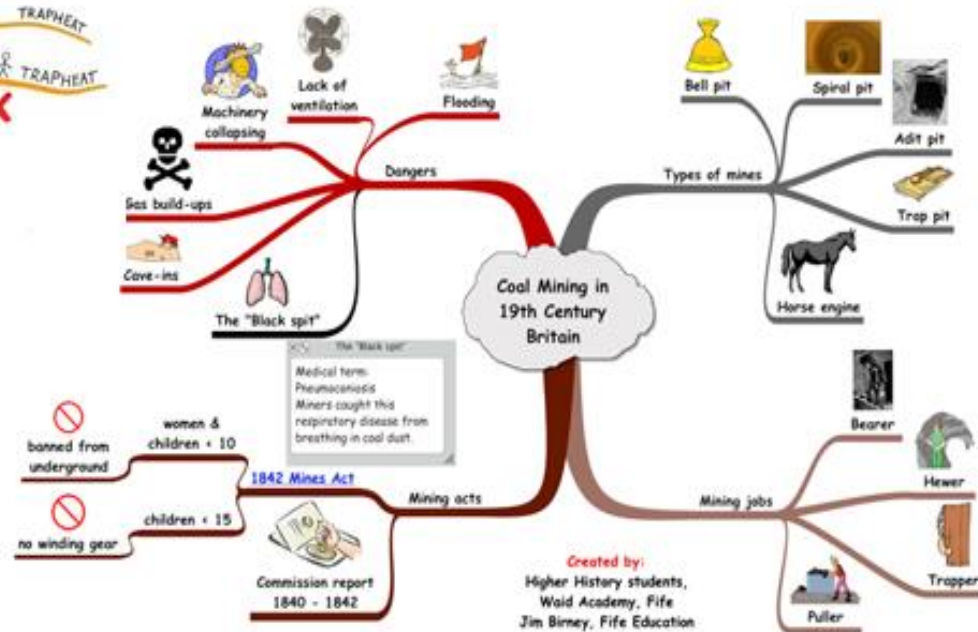


Top Tip: Use different colours for each branch of your mind map.

This helps your brain distinguish between each of the different information stems.

Top Tip: Use 'dual coding' in your mind maps.

Dual coding means using both words and images to record the information you need to remember.



FLASH CARDS

WHEN: to organise information from your exercise or text book.

HOW:

- Put a key question on one side
- Bullet point the key points that answer the question on the other side
- Put a formula / word on one side
- Put the definition on the other side
- You might be able to group key formulae/words together
- Bullet point the key points of a topic on one card (use both sides)

IMPACT: great for targeting key questions/formulae/words that you are finding hard to remember. Easy to carry around.

Examples of Flash Cards



Top Tip: Once you have created your flash cards, take a photo with your phone.

Create revision folders in your gallery so that you can revise in the car, on the bus... in fact anywhere when you've got a few spare minutes!

Mnemonics

WHEN: remembering a list of things or items in a particular order

HOW:

- Create a song, rhyme or poem using the first letter of each word in a sequence

For example:

- Richard of York gave battle in vain (to remember the colours of the rainbow)
- **Red Orange Yellow Green Blue Indigo Violet**



- Write out the first letter of each word in a sequence or list then make up your own rhyme

IMPACT: great for remembering sequences and orders of words relating to a topic.

Top Tip: Be **creative** when using mnemonics.

The sillier the rhyme, the more likely you are to remember it! **Repeat** the rhyme **regularly** to make sure it goes into your long term memory

Liskeard's Six Effective Learning Strategies

Check out the link on our school website for more information:

<http://www.liskeard.cornwall.sch.uk/students/six-strategies-for-effective-learning>

1. SPACE IT OUT



Don't just revise what you've just learnt.
Study older information to keep it fresh.

2. RETRIEVE



Without using your books, write or sketch
everything you know. Then check it!

3. ELABORATE



Think about the detail.
Describe, Explain, Compare, Question...

4. INTER-LEAVE



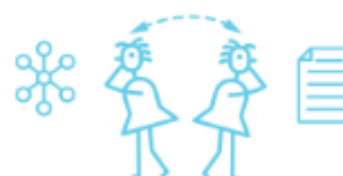
Don't study one topic for too long.
Switch between topics when studying.

5. USE EXAMPLES



Collect examples you have used in
class, or found yourself.
Link the examples to what you are studying.

6. DUAL CODE



Turn your words & notes into diagrams or pictures.
Turn your diagrams & pictures into words or notes.

Revision Websites

In addition to the website links within the subject pages, there are as a wide range of resources available online. Below is just a small section of those available.

<https://www.educationquizzes.com/ks3/>

Interactive resources for a wide range of subjects

<https://www.bbc.com/bitesize/levels/z4kw2hv>

Resources for a wide range of subjects

<https://mathsmadeeasy.co.uk/ks3-revision/>

Great for maths, also offers English and science resources

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

Quick fire interactive questions across a range of subjects

Top Tip: Ask your teacher for a list of the topics you need to revise.

Websites contain a lot of information, some of which that will not be relevant to your course. Make sure you revise everything you need to know!