

YEAR 9



BHA's Knowledge Quest

Summer 1
(Apr- May)
2025-2026



How to use your Knowledge Quest Booklet

To support you in making progress in each of your lessons, your teachers have produced Knowledge Organisers which contain all of the main facts, knowledge and information that you need to know to be successful and make progress this half term. There are lots of ways to use these Knowledge Organisers, but the most important thing is that you are revising the knowledge and you are able to recall it in your lessons. Please see below details of how to use this booklet; what your half termly homework looks like and how to secure lots of positive Class Charts points!

English: 30 minutes of Sparx Reader, every week.

Maths: 30 minutes of Sparx Maths, every week.

Science: 30 minutes of Seneca homework, every week.

MFL: 1 list of vocabulary to learn for a test in lesson AND 1 quiz to complete on Language Nut, MFL platform every fortnight.

History: 30 minutes of Seneca revision, every week. Additional revision provided for assessments.

Geography: 1 hour of Seneca per fortnight.

RE: Holistic quiz using Knowledge Organiser and lesson on teams, every 4 weeks.

PSHE: Independent self quizzing from Knowledge Organiser.

DT: Food Studies- Seneca assignment set as part of each 9-week rotation. Engineering Seneca assignment to prepare for BBB assessment set as part of the rotation. Independent self-quizzing from Knowledge Organiser.

Art: To research/find and create resource images for projects when required.

Computing: 1 hour of Seneca per fortnight.

All other subjects: Revise the information in this booklet using the revision sheets included with each subject.

Enrichment and Intervention 2025-26 Summer Term

SUMMER TERM

	Monday	Tuesday	Wednesday	Thursday	Friday
Breakfast 7.45am – 8.30am	Start Right Club Library open	Start Right Club Library open	Start Right Club Library open	Start Right Club Library open	Start Right Club Library open
Lunch 12.45pm – 1.15pm	MUGA Year 9 Library Year 11 Yr 7 Basketball LG	MUGA Year 11 Library Year 10 Yr 8 Basketball LG	MUGA Year 10 Library Year 9 Yr 9 Basketball LG	MUGA Year 8 Library Year 8 Yr 10 Basketball LG	MUGA Year 7 Library Year 7 Yr 11 Basketball LG
Period 7 Monday Tuesday Thursday 3.30pm – 4.30pm	Year 11 Open / MFL Subject Intervention Week 1: B Block Week 2: C Block Year 9 and 10 Football (Field) WT All years Chess Club – Room 9 MAG All Years Debate Mate Room 23 BED Sparx Maths Club – Room 15 DHY / RMI All years Basketball (Large Gvm) NK All years Girl's Netball (MUGA) JS/NW- New	Year 11 Science Intervention All years Rounders (MUGA) GH New All years Basketball (Large Gym) WT Year 7 and other beginners Latin Club Room 60 AA All years Cricket (Field) JS New All years Dance Club (Dance studio) CG All years <i>Hooked on Bristnall</i> Room 53 JW All years Beyond the Books (Reading Club) Room 24 FH All years Digital skills Room 30 MCA Basketfields Booster for Year 10 English Room 23 FBA Masterchef (SEND) Room 45 CCR/MSH/MCS SEND Y8 Reading Intervention ADI/LOM 33	Year 11 English and Maths Intervention All years Rounders (MUGA) KHA New All years Dodgeball (Large Gym) WT New All years Cricket (Field) NK New Year 7,8,9 Girls football WBA- Invite only MUGA All years Dance Club (Dance studio) JR All years Board Game Club Room 55 AK All years The Rep Theatre – Performing Arts Club Room 16 All years Geography Club Room 2 SBW All years Ultimate Uno Club Room 23 QSM All years Scene Stealers Filmmaker Club Room 22 DLA All years Act Up! Drama Club Room 24 SBS Yr 10 GCSE Computer Science and I Media students only: Room 62 JM / Room 10 HA SEND Social Society CCR/CST Room 1 SEND WBA Multisports/Football LK SEND Homework Club – JRE/MPA Room 31 SEND Y10 Direct Instruction Lit – JPG Room 3	Year 11 Geography /History Intervention Year 7 and 8 Football (Field) NK All years Legacy cohort Latin Club Room 60 AA All years Pickleball (MUGA) JS New All years <i>The hook and pen society</i> Room 53 JW/LOM Year 7,8,9 Music Rock Band- Room 36 TW Russian Language Club for beginners Room 58 RMI	All years Dungeons and Dragons (MB) Room 5 Yr 10/11 Engineering coursework catch up intervention- By invitation only LN
Wednesday Friday 2.35pm – 3.35pm	All years Task Master Room 28 GEG All years Science Club Lab 49 BHO/HOB Yr9 and 10 Science Intervention SAM Year 7 – 9 Masterchef Room 45 (limited to 15 pupils only) CCR/MSH/PCR SEND Y7 Reading Intervention ADI/LOM Room 2				

Academic	Creative	Physical
<input type="checkbox"/> Task Master (will meet all parts of the diploma) <input type="checkbox"/> Latin Club (new and legacy cohorts) <input type="checkbox"/> Chess Club <input type="checkbox"/> Sparx Maths Club <input type="checkbox"/> Geography Club <input type="checkbox"/> Science Club Lab 49 <input type="checkbox"/> Debate Mate <input type="checkbox"/> 'Beyond the Books' Reading Club <input type="checkbox"/> Russian Language Club for Beginners <input type="checkbox"/> Any other subject intervention	<input type="checkbox"/> Task Master (will meet all parts of the diploma) <input type="checkbox"/> Scene stealers film maker club <input type="checkbox"/> Act up! Drama Club <input type="checkbox"/> Ultimate Uno <input type="checkbox"/> Hooked on Bristnall - Crochet club <input type="checkbox"/> The hook and pen society <input type="checkbox"/> The REP Theatre Performing Arts Club <input type="checkbox"/> Board Game Club <input type="checkbox"/> Dungeons and Dragons <input type="checkbox"/> Digital Skills <input type="checkbox"/> Rock Band <input type="checkbox"/> Masterchef	<input type="checkbox"/> Task Master (will meet all parts of the diploma) <input type="checkbox"/> Football <input type="checkbox"/> Basketball <input type="checkbox"/> Netball <input type="checkbox"/> Dodgeball <input type="checkbox"/> Cricket <input type="checkbox"/> Rounders <input type="checkbox"/> Dance

Dates to remember this half term:

April

May

Attendance record



Week	Attendance %
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	

Sparx Check!

Remember to click: 'Login with Microsoft' using your academy email address and password!

In the boxes below, write the XRP score that you achieved for each subject. Your form tutor will award you additional CC points for the more XRP points you achieve in addition to the set points for each weekly homework.

	Sparx Reader Points:	Sparx Maths Points:
Week 1		
Week 2		
Week 3		
Week 4		
Week 5		
Week 6		
Total this half term:		

Seneca Check!

Remember to click: 'Login with Microsoft' using your academy email address and password!

In the boxes below, write the titles of the assignments that you complete for each subject and your overall percentage scores. Your form tutor will award you additional CC points for the highest percentages you achieve in addition to the set points for each weekly homework.

	English Assignments:	Science Assignments:	History Assignments:	Geography Assignments:
Week 1				
Week 2				
Week 3				
Week 4				
Week 5				
Week 6				
Total assignments completed this half term:				

Language Nut Check!

Remember to click:
'Login with Microsoft'
using your academy
email address and
password!

In the boxes below, write out what % you have achieved from your weekly homework. Your form tutor will award you additional CC points for the highest scores you achieve in addition to the set points for each weekly homework.

	MFL Homework:
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Total assignments completed this half term:	

Independent Study Check!

Your form tutor and your parent/carer will also check that you are completing your independent study within this booklet. Additional positive CC points will be awarded for beautiful presentation and your ability to demonstrate a strong recall of the knowledge within this booklet.

	End of Half term Form Tutor Check:	Parent/Carer Check:
Independent Study Completed?		
Beautiful Presentation?		
Recall of Knowledge?		

Personal Reflection: What are you most proud of within your Independent Study Booklet?

Look, Cover, Write, Check

Definitions to Key Words

Flash Cards

Self Quizzing

Mind Maps

Paired Retrieval

Step 1

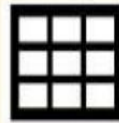
Look at and study a specific area of your knowledge organiser.



Write down the key words and definitions.



Use your knowledge organiser to condense and write down key facts and or information on your flash cards.



Use your knowledge organiser to create a mini quiz. Write down questions using your knowledge organiser.



Create a mind map with all the information you can remember from your knowledge organiser.



Ask a partner or family member to have the knowledge organiser or flash cards in their hands.



Step 2

Cover or flip the knowledge organiser over and write down everything you remember.



Try not to use your knowledge organiser to help you



Add pictures to help support. Then self quiz yourself using the flash cards. You can write questions on one side and answers on the other.



Answer the questions and remember to use full sentences.



Check your knowledge organiser to see if there were any mistakes with the information you have made.



They can test you by asking you questions on different sections of your knowledge organiser.



Step 3

Check what you have written down. Correct any mistakes in green pen and add anything you missed. Repeat.



Use your green pen to check your work.



Use a parent/carer or friend to help quiz you on the knowledge.



You can also use family to help quiz you. Keep self quizzing until you get all questions correct.



Try to make connections that links information together.



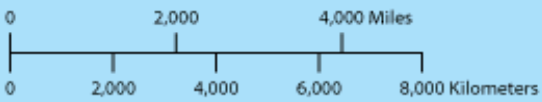
Write down your answers.



WORLD MAP



- | | | | |
|---------------------------|---------------------|-----------------------|----------------------------------|
| 1. Netherlands | 10. Austria | 20. Ghana | 29. Liechtenstein |
| 2. Belgium | 11. Hungary | 21. Togo | 30. Montenegro |
| 3. Luxembourg | 12. Serbia | 22. Benin | 31. Kosovo |
| 4. Switzerland | 13. Moldova | 23. Cameroon | 32. Palestinian Territories |
| 5. Slovenia | 14. North Macedonia | 24. Equatorial Guinea | 33. St. Vincent & the Grenadines |
| 6. Croatia | 15. Albania | 25. Rwanda | |
| 7. Bosnia and Herzegovina | 16. Cyprus | 26. Cambodia | |
| 8. Czechia | 17. Lebanon | 27. Panama | |
| 9. Slovakia | 18. Guinea-Bissau | 28. Malawi | |



LIBRARY SCOTT & REBECCA WATTS COTT

CAN YOU SEE ME?
Expected to fit in
I could be a cloud to you
STAND OUT

Year 7+

J.K. ROWLING
HARRY POTTER
and the
Philosopher's Stone

Year 7+

THE HUNGER GAMES
Suzanne Collins

Year 8+

THE GIVER
Seeing the flaws in a perfect world...

Lois Lowry

Year 7+

ANNE FRANK

THE DIARY OF A YOUNG GIRL

Year 7+

20 YEARS

ALEX RIDER
ACTION ADRENALINE ADVENTURE
STORMBREAKER
THE SERIES THAT HAS RE-INVENTED THE SPY GENRE
JAMES ALAN HOROWITZ

Year 8+

FRANKENSTEIN
MARY SHELLEY

Year 10+

A closed case. An A-grade student who won't let it go...

A Good Girl's Guide to Murder
R.J. PALACIO

Year 10+

BHA'S

BEFORE 16
What have you read so far...?

Year 7+

THE PERKS OF BEING A WALLFLOWER
Stephen Chbosky

Year 11+

The GREAT GATSBY
FITZGERALD

Year 11+

'A MASTERPIECE.'
Angie Thomas, The Hate U Give

LONG WAY DOWN
JASON REYNOLDS

Year 9+

IT WAS THRILLED BY 'PERSEPOLIS', A BRILLIANT ANIMATED VERSION OF MARIJANE SATRAPI'S SPIRITED AUTOBIOGRAPHICAL NOVELS. EASILY ONE OF THE MOST SUCCESSFUL, COMIC-BOOK-BASED ON-SCREEN TRANSLATIONS EVER. ELIAD, KLING AND HARVEY

PERSEPOLIS
A FILM BY MARIJANE SATRAPI AND VINCENT PARONNAUD

Year 8+

LORD OF THE FLIES
WILLIAM GOLDING

Year 9+

ANIMAL FARM
GEORGE ORWELL

Year 9+

THE FAULT IN OUR STARS
JOHN GREEN

Year 10+

ANITA AND ME • MEERA SYAL

Year 11+

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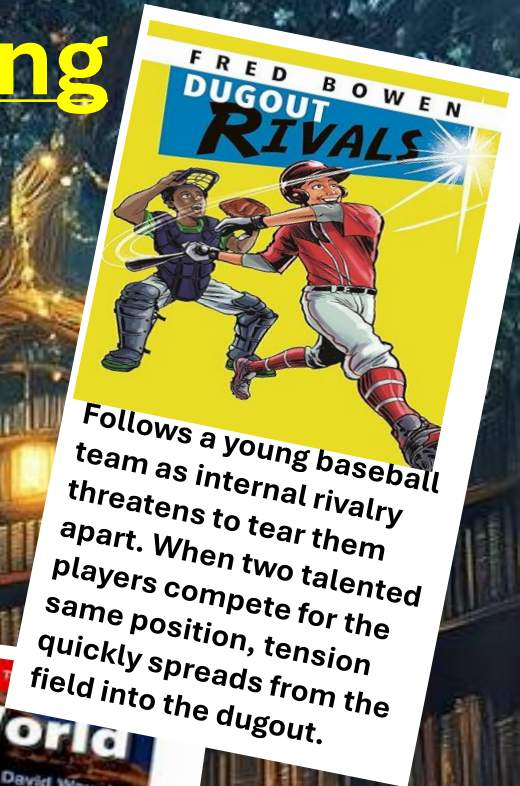
YEAR 9

Recommended Reading

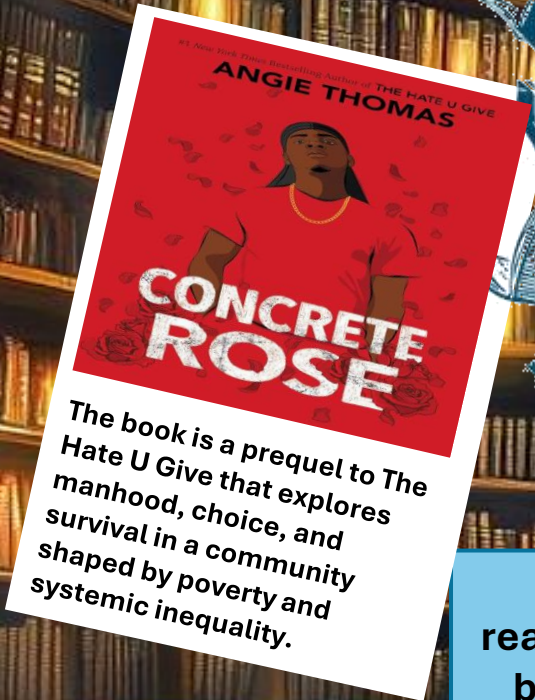


Tells the true story of Hana Brady, a Jewish child murdered in the Holocaust

As a survivor of Auschwitz, Levi offers fiction, non-fiction, allegory and reality wrapped in a metaphor of chemistry to bring us a layered vision of his world.

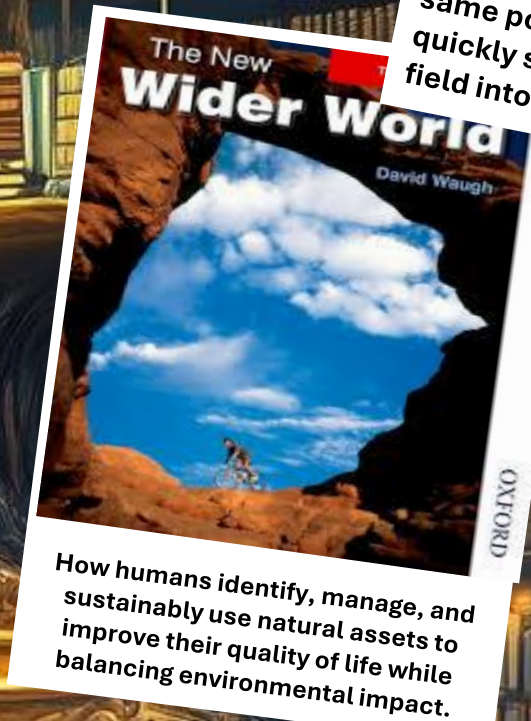


Follows a young baseball team as internal rivalry threatens to tear them apart. When two talented players compete for the same position, tension quickly spreads from the field into the dugout.



The book is a prequel to The Hate U Give that explores survival in a community shaped by poverty and systemic inequality.

Challenge yourself by reading these topic-related books for this half term!



How humans identify, manage, and sustainably use natural assets to improve their quality of life while balancing environmental impact.

Year 9 Knowledge Organiser: *Make Your Voice Heard*: non-fiction speeches and the language of protest

Word/term	Definition	Example
alliteration	The repetition of usually initial consonant sounds in two or more neighbouring words or syllables	wild and woolly, threatening throngs
anadiplosis	Repetition of the last word in one phrase or clause at the beginning of the next	rely on his honour-honour such as his?
anaphora	Repetition of a word or expression at the beginning of successive phrases, clauses, sentences, or verses especially for rhetorical or poetic effect	we cannot dedicate—we cannot consecrate—we cannot hallow—this ground
epistrophe	Repetition of a word or expression at the end of successive phrases, clauses, sentences, or verses especially for rhetorical or poetic effect	of the people, by the people, for the people
hyperbole	Extravagant exaggeration	mile-high ice-cream cones
hypophora	When the writer answers their own rhetorical question.	How can we change this? We can change this by protesting for change.
metaphor	A figure of speech in which one thing is compared to another by saying it IS something that it cannot literally be	Drowning in money
oxymoron	Two contradictory words placed next to each other	Cruel kindness
imagery	Imagery is visual symbolism, or figurative language that evokes a mental image or other kinds of sense impressions, especially in a literary work.	So black no sky could squeak through
Direct address	Using 'you' or 'your' to directly address the reader or listener	The power is in your hands
allusion	Indirect references to <u>well known</u> things such as the Bible, a <u>well known</u> movement/event/person	We saw our country tear itself apart in a terrible conflict (allusion to apartheid)
Triple/tricolon	A <u>three part</u> sentence structure/list of three words of the same word class for effect.	Be sincere, be brief, be seated.
Antithesis	Balanced use of opposites in successive clauses or sentences	Write quickly and you will never write well, write well and you will soon write quickly. Fail to plan, plan to fail
Parallelism	Parallelism is a component of literary style in both prose and poetry, in which coordinate ideas are arranged in phrases, sentences, and paragraphs that balance one element with another of equal importance and similar wording.	You can fool all the people some of the time, and some of the people all the time, but you cannot fool all the people all the time.

Disciplined discussion

Why do you agree with this statement?

A

In what way do you agree with the point? Explain why
I agree because...
I would argue the same because...
That is an interesting idea I like that idea because...
I feel the same as you...

What can you add to this point?

B

Can you build on the point? Develop your reasons.
I would like to add...
I would like to develop the point by including...
Building on X's point...
I feel that I need to also include...
In addition, I think we should also consider...

Why might you disagree?

C

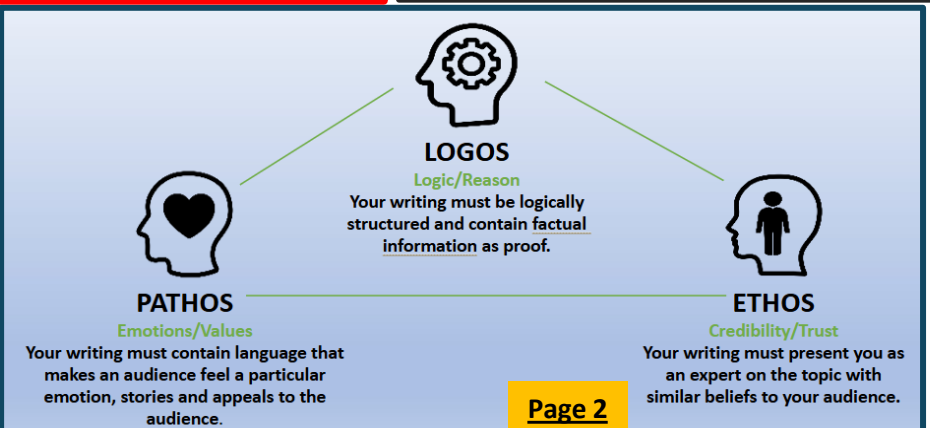
How can you challenge the point? Offer an alternative.
I would like to challenge this because...
I have a different view about...
I don't agree because...
I think an alternative point...
I have to disagree with that point...
I take your point. but you need to look at...
I would like to invite you to see this differently...

Section of speech	Contents – key ideas, methods, message
 introduction	
 1 Reason 1	
 2 Reason 2	
 SHUT DOWN!!!	
 Solution	
 Call to action	

Have you used DAFOREST?

Direct address/Dynamic verbs
Alliteration/anecdote
Fact/figurative language
Opinion
Rhetorical question
Emotive language
Statistic/simile/satire
Triple

Key word	Meaning
cohesion	the action or fact of forming a united whole.
sacrifice	give up (something valued) for the sake of something else.
unity	the state of being united or joined as a whole
democracy	a system of government in which power is held by elected representatives who are freely voted for by the people
discord	disagreement between people
indifference	lack of interest, concern, or sympathy
conformity	behaviour in accordance with socially accepted conventions or rules



Enlargement & Similarity

What do I need to be able to do?

- By the end of this unit you should be able to:
 - Recognise enlargement and similarity
 - Enlarge a shape by a positive SF
 - Enlarge a shape from a point
 - Enlarge a shape by a fractional SF
 - Work out missing sides and angles in a pair of similar shapes

Keywords

Similar Shapes: shapes of different sizes that have corresponding sides in equal proportion and identical corresponding angles

Scale Factor: the multiple describing how much a shape has been enlarged

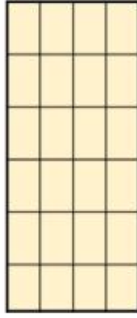
Enlarge: to change the size of a shape (enlargement is not always making a shape bigger)

Corresponding: objects (or sides) that appear in the same place in two similar situations.

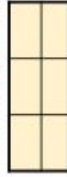
Image: the picture or visual representation of the shape

Recognise enlargement & similarity

Shapes are similar if all pairs of corresponding sides are in the same ratio



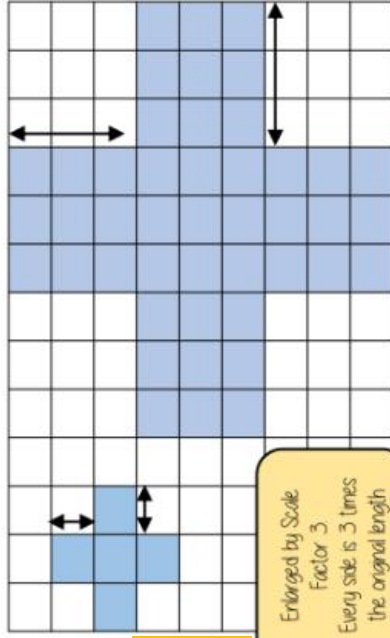
These shapes are similar because all sides are increased by the same ratio



Enlargements are similar shapes with a ratio other than 1

Enlarge by a positive scale factor

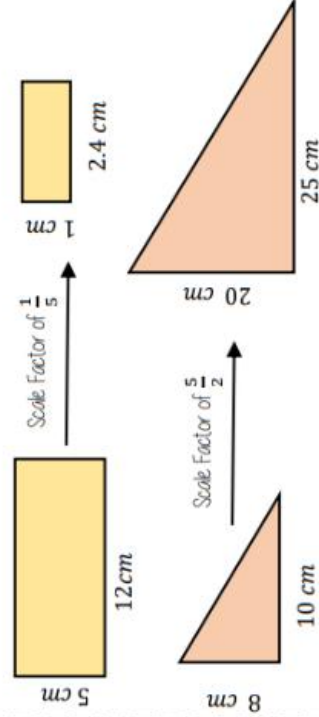
With a scale factor larger than 1 it makes the shape bigger



Enlarged by Scale Factor 3
Every side is 3 times the original length

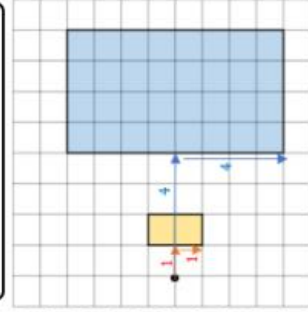
Positive fractional scale factor

With a scale factor between 0 and 1 it makes the shape smaller



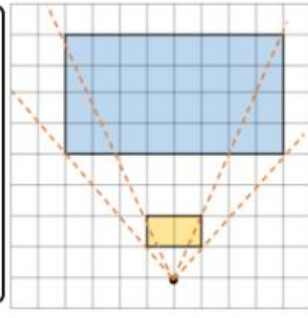
Enlarge a shape from a point

Scaled distances method



Scale the distance between the point of enlargement and each corresponding vertices

Rays method

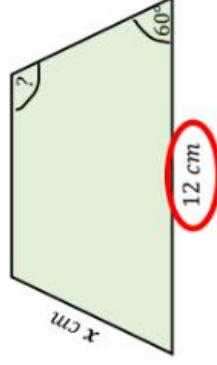
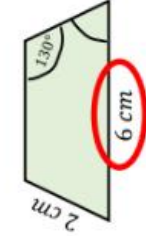


Multiply the distance from the centre of corresponding vertices by the scale factor along the ray

Calculations in similar shapes

Don't forget that properties of shapes don't change with enlargements or in similar shapes.

The two trapezium are similar find the missing side and angle



Corresponding sides identify the scale factor

$$\frac{12}{6} = 2$$

Scale Factor = 2

Calculate the missing side

$$\begin{aligned} \text{Length (corresponding side)} & \times \text{scale factor} \\ 2\text{ cm} \times 2 \\ x & = 4\text{ cm} \end{aligned}$$

Calculate the missing angle

Enlargement does not change angle size

Corresponding angles remain the same

130°

Maths

Solving ratio & proportion problems

Keywords

What do I need to be able to do?

- By the end of this unit you should be able to:
 - Solve problems with direct proportion
 - Use conversion graphs
 - Solve problems with inverse proportion
 - Solve ratio problems
 - Solve 'best buy' problems
- Proportion: a comparison between two numbers
- Ratio: a ratio shows the relative size of two variables
- Direct proportion: as one variable is multiplied by a scale factor the other variable is multiplied by the same scale factor.
- Inverse proportion: as one variable is multiplied by a scale factor the other is divided by the same scale factor.

Direct Proportion



4 cans of pop = £2.40
 $\times 5$
 4 cans of pop = £2.40
 $\times 2$
 2 cans of pop = £1.20

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

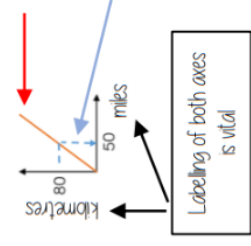
Inverse Proportion

As one variable changes the other changes at the same rate

This is a multiplicative change
 $\times 3$
 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 Graphs



Best Buys

Compare two variables
 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

Direct Proportion

As one variable is multiplied by a scale factor the other is divided by the same scale factor

Examples of inversely proportional relationships
 Time taken to fill a pool and the number of taps running
 Time taken to paint a room and the number of workers

T is inversely proportional to G. When T=2 then G=20

T	1	2	8
G	40	20	5

$\div 2$ $\times 4$
 $\times 2$ $\div 4$

Best Buys

Have a directly proportional relationship
 To calculate best buys you need to be able to compare the cost of one unit or units of equal amounts



Shop A: 4 cans for £1.20
 $\div 4$
 1 can is £0.30 Or 30p

Shop B: 3 cans for 93p
 $\div 3$
 1 can is £0.31 Or 31p

Cost per item

Shop A is the best value as it is 1p cheaper per can of pop

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
 £350
 £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
 $\times 50$ $\times 50$
 £150 : £200
 James = 3 x £50 = £150
 Lucy = 4 x £50 = £200

Finding a value given in (or n:1)

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

Model the Question
 Blue : Red
 5 : 1
 = one part = 10 pens

Put back into the question
 Blue pens = 5 x 10 = 50 pens
 Red pens = 1 x 10 = 10 pens
 There are 50 Blue Pens

Formation of Ions

Ions are charged particles. They can be either positively or negatively charged, for example Na^+ or Cl^- .

When an element loses or gains electrons, it becomes an ion.

Metals lose electrons to become positively charged.

Non-metals gain electrons to become negatively charged.

Group 1 and 2 elements lose electrons and group 6 and 7 elements gain electrons.

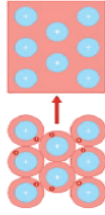
Group	Ions	Element Example
1	+1	$\text{Li} \rightarrow \text{Li}^+ + e^-$
2	+2	$\text{Ca} \rightarrow \text{Ca}^{2+} + 2e^-$
6	-2	$\text{Br} + e^- \rightarrow \text{Br}^-$
7	-1	$\text{O} + 2e^- \rightarrow \text{O}^{2-}$

Metals and Non-metals

Metals are found on the left-hand side of the periodic table. Metals are strong, shiny, malleable and good conductors of heat and electricity. On the other hand, non-metals are brittle, dull, not always solids at room temperature and poor conductors of heat and electricity. Non-metals are found on the right-hand side of the periodic table.

Metallic Bonding

Metallic bonding occurs between metals only. Positive metal ions are surrounded by a sea of delocalised electrons. The ions are tightly packed and arranged in rows.



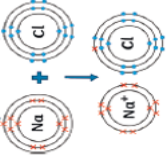
There are strong electrostatic forces of attraction between the positive metal ions and negatively charged electrons.

Pure metals are too soft for many uses and are often mixed with other metals to make alloys. The mixture of the metals introduces different-sized metal atoms. This distorts the layers and prevents them from sliding over one another. This makes it harder for alloys to be bent and shaped like pure metals.



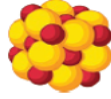
Ionic Bonding

Ionic bonding occurs between a metal and a non-metal. Metals lose electrons to become positively charged. Opposite charges are attracted by electrostatic forces – an ionic bond.



Ionic Compounds

Ionic compounds form structures called giant lattices. There are strong electrostatic forces of attraction that act in all directions and act between the oppositely charged ions that make up the giant ionic lattice.



Properties of Ionic Compounds

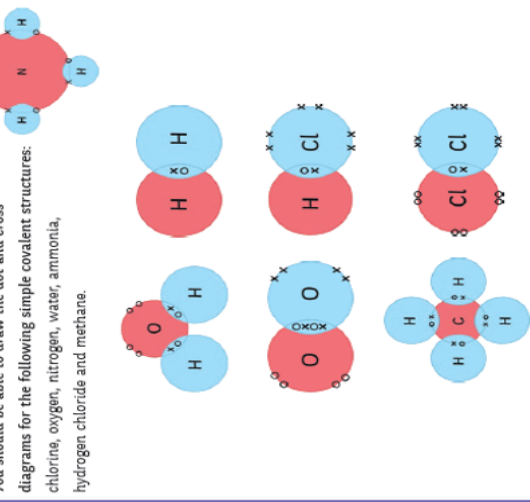
- High melting point – lots of energy needed to overcome the electrostatic forces of attraction.
- High boiling point
- Cannot conduct electricity in a solid as the ions are not free to move.
- Ionic compounds, when molten or in solution, can conduct electricity as the ions are free to move and can carry the electrical current.

Covalent Bonding

Covalent bonding is the sharing of a pair of electrons between atoms to gain a full outer shell. This occurs between non-metals only. Simple covalent bonding occurs between the molecules below. Simple covalent structures have low melting and boiling points – this is because the weak intermolecular forces that hold the molecules together break when a substance is heated, not the strong covalent bonds between atoms. They do not conduct electricity as they do not have any free delocalised electrons.

Dot and cross diagrams are useful to show the bonding in simple molecules. The outer electron shell of each atom is represented as a circle, the circles from each atom overlap to show where there is a covalent bond, and the electrons from each atom are either drawn as dots or crosses. There are two different types of dot and cross diagram – one with a circle to represent the outer electron shell and one without.

You should be able to draw the dot and cross diagrams for the following simple covalent structures:



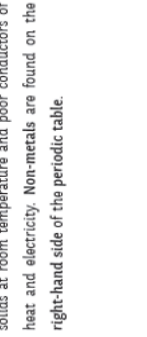
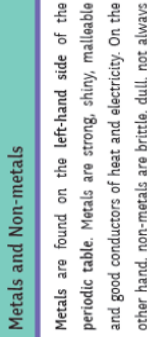
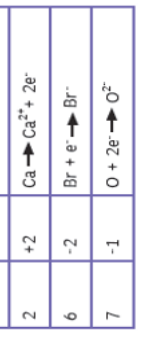
Structural Formulae

In this type of diagram, the element symbol represents the type of atom and the straight line represents the covalent bonding between each atom.

The structure of small molecules can also be represented as a 3D model.

Each carbon atom is bonded to four other carbon atoms, making diamond very strong. Diamond has a high melting and boiling point. Large amounts of energy are needed to break the strong covalent bonds between each carbon atom. Diamond does not conduct electricity because it has no free electrons.

Silicon dioxide (silicon and oxygen atoms) has a similar structure to that of diamond, in that its atoms are held together by strong covalent bonds. Large amounts of energy are needed to break the strong covalent bonds therefore silicon dioxide, like diamond, has a high melting and boiling point.



Fullerenes and Nanotubes

Molecules of carbon that are shaped like hollow tubes or balls, arranged in hexagons of five or seven carbon atoms. They can be used to deliver drugs into the body.

Buckminsterfullerene has the formula C_{60}

Carbon Nanotubes are tiny carbon cylinders that are very long compared to their width. Nanotubes can conduct electricity as well as strengthening materials without adding much weight. The properties of carbon nanotubes make them useful in electronics and nanotechnology.

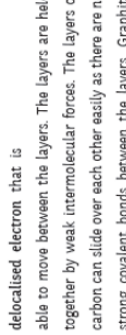
Possible Risks of Nanoparticles

As nanoparticles are so small, it makes it possible for them to be inhaled and enter the lungs. Once inside the body, nanoparticles may initiate harmful reactions and toxic substances could bind to them because of their large surface area to volume ratio. Nanoparticles have many applications. These include medicine, cosmetics, sun creams and deodorants. They can also be used as catalysts.

Modern nanoparticles are a relatively new phenomenon therefore it is difficult for scientists to truly determine the risks associated with them.

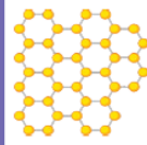
Giant Covalent Structure – Graphite

Graphite is made up of layers of carbon arranged in hexagons. Each carbon is bonded to three other carbons and has one free delocalised electron that is able to move between the layers. The layers are held together by weak intermolecular forces. The layers of carbon can slide over each other easily as there are no strong covalent bonds between the layers. Graphite has a high melting point because a lot of energy is needed to break the covalent bonds between the carbon atoms. Graphite can conduct electricity.



Giant Covalent Structure – Graphene

Graphene is one layer of graphite. It is very strong because of the covalent bonds between the carbon atoms. As with graphite, each carbon in graphene is bonded to three others with one free delocalised electron. Graphene is able to conduct electricity. Graphene, when added to other materials, can make them even stronger. Useful in electricals and composites.



Nanoscience

Nanoscience refers to structures that are 1–100nm in size, of the order of a few hundred atoms. Nanoparticles have a high surface area to volume ratio. This means that smaller amounts are needed in comparison to normal sized particles. As the side length of a cube decreases by a factor of 10, the surface area to volume ratio increases approximately

Name of Particle	Diameter
nanoparticle	1–100nm
fine particles (PM_{10})	100–2500nm
coarse particles (PM_{10})	2500–10000nm

Polymers

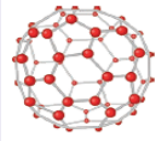
Polymers are long chain molecules that are made up of many smaller units called monomers. Atoms in a polymer chain are held together by strong covalent bonds. Between polymer molecules, there are intermolecular forces. Intermolecular forces attract polymer chains towards each other. Longer polymer chains have stronger forces of attraction than shorter ones therefore making stronger materials.

Fullerenes and Nanotubes

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Modern nanoparticles are a relatively new phenomenon therefore it is difficult for scientists to truly determine the risks associated with them.

Opinions

Me encanta – *I love*



Me gusta mucho

– *I really like*



Me gusta – *I like*



No me gusta – *I don't like*



odio / detesto – *I hate*



Justifications

porque es – *because it's*
 dado que es – *because it's*
 porque no es – *because it's not*
 *será– *it will be*
 *fue – *it was*

Intensifiers

muy – *very*
 bastante – *quite*
 demasiado – *too*
 un poco – *a little bit*

Connectives

y - *and*
 también – *also*
 pero – *but*
 sin embargo - *however*

Reasons



divertido – *fun*
 interesante – *interesting*
 fantástico – *fantastic*
 guay – *cool*
 genial – *great*



horrible – *horrible*
 aburrido – *boring*
 difícil – *difficult*
 terrible - *awful*

Instructions Escribe – *Write!* Escucha – *Listen!* Mira – *Look!* Lee – *Read!*
 Empareja – *Match up!* Traduce – *Translate!* Repite – *Repeat!* Copia – *Copy!*

Questions

Como se dice... en ingles / en español? *How do we say... in English/Spanish?*
 Que/Cual es...? *What is it...?*

Classroom language

Hola señor / señorita – *Hello Sir / Miss*

Sí / no – *Yes / No*

Por favor – *Please*

Gracias – *Thank you*

Necesito... – *I need*

un bolígrafo (verde) – *a (green) pen*

el papel – *some paper*

un diccionario– *a dictionary*

una regla – *a ruler*

un cuaderno – *an exercise book*

¿Puede usted repetir?

– *Can you repeat?*

No entiendo – *I don't understand*

¿Puede usted ayudarme?

– *Can you help me?*

¿Puedo ir al baño?

– *Can I go to the toilets?*

He terminado – *I have finished*

¿Puedo quitarme la chaqueta?

– *Can I take my blazer off?*

¿Cómo se dice.... en español / ingles?

– *How do I say in Spanish / English?*

Los Números

uno.....	1
dos.....	2
tres.....	3
cuatro.....	4
cinco.....	5
seis.....	6
siete.....	7
ocho.....	8
nueve.....	9
diez.....	10
once.....	11
doce.....	12
trece.....	13
catorce.....	14
quince.....	15
dieciséis.....	16
diecisiete.....	17
dieciocho.....	18
diecinueve.....	19
veinte.....	20
veintiuno.....	21
veintidós.....	22
veintitrés.....	23
veinticuatro.....	24
veinticinco.....	25
veintiséis.....	26
veintisiete.....	27
veintiocho.....	28
veintinueve.....	29
treinta.....	30
treinta y uno.....	31
treinta y dos.....	32
treinta y tres.....	33
treinta y cuatro.....	34
treinta y cinco.....	35
treinta y seis.....	36
treinta y siete.....	37
treinta y ocho.....	38
treinta y nueve.....	39
cuarenta.....	40
cuarenta y uno.....	41
cuarenta y dos.....	42
cuarenta y tres.....	43
cuarenta y cuatro.....	44
cuarenta y cinco.....	45
cuarenta y seis.....	46
cuarenta y siete.....	47
cuarenta y ocho.....	48
cuarenta y nueve.....	49
cincuenta.....	50
sesenta.....	60
setenta.....	70
ochenta.....	80
noventa.....	90
ciento.....	100

Year 9 Spanish Module 5: De Compras Knowledge Organiser

Ways to practise vocabulary: 1. Look cover, write check 2. Log onto Memrise 3. Getting people at home to test you 4. Log onto Quizlet

Key vocabulary

Las tiendas - shops

¿dónde se puede comprar...?	When can you buy...?
carne	meat
comida/pan	food/bread
ropa	clothes
pasteles	cakes
joyas	jewellery
zapatos	shoes
libros	books
una cafetería	a café
unas carnicería	a butchers
una joyería	a jeweller's
una panadería	a bakers
una pastelería	a cake shop
una tienda de música/ropa	a music/clothes shop
una zapatería	a shoe shop

en la tienda de recuerdos

quiero comprar	I want to buy
un imán	a magnet
un llavero	a key ring
un collar	a necklace
turrón	nougat
una camiseta	a T shirt
una figura	a statue
una taza	a cup
unos pendientes	some earrings
unas castañuelas	some castanets
un abanico	a fan
barato/a	cheap
caro/a	expensive
precioso/a	pretty
útil	useful

problemas—problems

tengo un problema	I have a problem
quiero quejarme	I want to complain
he comprado	I've bought
es demasiado..,	it's too...
tiene un agujero	it has a hole
tiene una mancha	it has a stain
prefiero	I prefer
ya tengo una igual	I have one the same
quiero un reembolso	I want a refund.
quiero cambiarlo	I want to change it

High Frequency Words

primero	firstly
luego/después	then/after
finalmente	finally
(o) tal vez	(or) perhaps
donde	where
si	if
este/a/os/as	this/these
algo	something
para	(in order) to
sobre todo	above all
usted	you (polite)

Big Question

How do I discuss my favourite day?
Where can I buy different things?
Where can I buy things for my family?
How do I buy clothes & make complaints?
How do I talk about my last day?
How do I describe my plans for tomorrow?

mi último día—my last day

si...	if...
hace sol	it is sunny
hace viento	it is windy
hace buen tiempo	it is nice weather
hace calor	it is hot
hace frío	it is cold
llueve	it is raining
voy a...	I'm going to...
ver un partido	watch a match
visitar el museo	visit the museum
sacar fotos	take photos
probar una paella	try a paella

Intensifiers

muy—very
bastante —quite
un poco—a little
mucho—a lot

False friend

ropa	clothes
collar	necklace

Useful Grammar

Present tense regular endings			
	er verbs	ir verbs	er verbs
I	o	o	o
You	as	es	es
He/she	a	e	e
We	amos	emos	imos
You (pl)	áis	éis	ís
they	an	en	en

Preterite tense regular endings			
	er verbs	ir verbs	er verbs
I	é	í	í
You	aste	iste	iste
He/she	ó	ió	ió
We	amos	emos	imos
You (pl)	astéis	isteis	isteis
they	aron	ieron	ieron

- Forming the tenses.
1. Take the infinitive.
 2. Take off the -ar/-er/-ir end
 3. Add the ending for present/preterite tense

The future tenses

The near future (I am going to)

The simple future (I will)

- Using three tenses.
- ayer + preterite tense
 - si + present tense

The Near Future Tense		
voy		sacar
vas		trabajar
va	a	ayudar
vamos		fregar
vaís		hacer
van		pasar

The Simple Future Tense		
I	coger (catch)	é
You	comprar (buy)	ás
He/she	dar (give)	á
We	ir (go)	emos
You (pl)	sacar (take)	eis
they	hacer—har (to do)**	án

Comparatives

To compare two things we use the comparative.

Más + adjective + que

We can use comparatives with an infinitive, so in this case, the adjective does not need to agree.

Example: ir a pie es más verde que ir en coche

Going by foot is greener than going by car

superlatives

We use the superlative to talk about the most/the least...

It is made up of four parts

el/la/los/las + noun + más + adjective

el estadio más famoso—the most famous stadium

la churrería más antigua—the oldest churros shop

Adjectives must agree with *the gender/number* of the noun!

Year 9 Spanish Module 6: Celebrity Culture Knowledge Organiser



Ways to practise vocabulary: 1. Look cover, write check 2. Log onto Memrise 3. Getting people at home to test you 4. Log onto Quizlet

Key vocabulary

las relaciones familiares - family	
este es	this is (m)
esta es	this is (f)
estos	these are (m)
estas	there are (f)
mi padre	my father
mi madre	my mother
mi hermano	my brother
mi hermana	my sister
mi marido	my husband
mi esposa/mujer	my wife
mi hijo/hija	my son/daughter
mi niño/niña	my little boy/girl
mi novio/novia	my boy/girlfriend
es marido de...	my...’s husband
el novio de...	my ...’s boyfriend

los famosos – celebrities	
el actor/la actriz	actor/actress
el/la artista	artist/performer
el autor/la autora	author
el cantante	singer
el equipo	team, equipment
el escritor	writer
la estrella	star
el famoso	celebrity, famous person
el grupo	group
el influencer	influencer
el jugador/la jugadora	player
el miembro	member
el/la modelo	model
el/la personaje	character (in book, film)

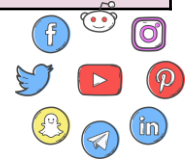


La personalidad – personality	
es	he/she/it is
son	they are
alemán/a	German
amable	friendly
artístico	artistic
británico/a	British
cariñoso/a	caring
conocido	known, well-known
cultural	cultural
especial	special
famoso/a	famous
gracioso	funny
guapo/a	good-looking
inglés/a	English
italiano/a	Italian
joven	young
muerto/a	dead
peligroso/a	dangerous
rico/a	rich
tolerante	tolerant
único/a	only/unique

relaciones y sexualidad – relationships	
casarse	to get married
divorciarse	to get divorced
separar; separarse	(to) separate
el comportamiento	behaviour
la pareja	couple, partner
el amor	love
el matrimonio	marriage
la personalidad	personality
el carácter	character
la relación	relationship
ser	to be
casado/a	married
bi(sexual)	bi(sexual)
gay	gay
hetero(sexual)	straight, heterosexual
soltero/a	single, unmarried
transgénero	transgender

Verbos claves – key verbs	
celebrar	to celebrate
ganar	to earn
grabar	to record
leer	to read
llamar(se)	to call, name
luchar	to fight
nacer	to be born
respetar	to respect
tocar	to play
vestir(se)	to dress
viajar	to travel
votar	to vote
pasarlo bien/mal	to have a good/bad time

los redes sociales – social media	
seguir	to follow
ver	to watch
el internet	Internet
el vídeo	video
el anuncio	advert
la foto	photo
educativo	educational
peligroso	dangerous
peligro	danger
seguidor/a	follower



Big Question

- How do I talk about my family relations?
- How do I talk about personality?
- Who is my role model?
- What made my role model so important?
- What are my musical and reading tastes?
- What do I enjoy on TV?
- How do I describe social media and influencers?

Intensifiers

- muy—very
- bastante —quite
- un poco—a little
- mucho—a lot



Vocabulario Clave

club	club	industria	industry
moda; de moda	fashion; in fashion, fashionable	instrumento	instrument
pelo	hair	letra	letter, lyrics
marca	make, brand	mundo	World
periódico	newspaper	música	music
proyecto	project, plan	musical	Musical
respeto	respect, regard	nombre	name
sociedad	society	papel	paper, role, part
calle	street	partido	match (sport), (political) party
arte	art	película	film, movie
canCIÓN	song	popular	popular
carrera	career, degree course, race	premio	prize, reward
cine	cinema	programa	programme
concierto	concert	público	public
dinero	money	revista	magazine
droga	drug	rico	rich, wealthy, tasty
entrevista	interview	serie	series
espectáculo	show, spectacle	sueño	dream, sleep
éxito	success	teatro	theatre, drama
fiesta	party, festival	tele, televisión	TV, television
guitarra	guitar	tele-realidad	reality TV
identidad	identity	voz	Voice
imagen	image, picture		



Useful Grammar

Present tense regular endings

	er verbs	ir verbs	er verbs
I	o	o	o
You	as	es	es
He/she	a	e	e
We	amos	emos	imos
You (pl)	áis	éis	ís
they	an	en	en

- Forming the tenses.**
1. Take the infinitive.
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- Using three tenses.**
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 - si + present tense

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Más + adjective + que
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We	amos	emos	imos
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they	aron	ieron	ieron

The Near Future Tense

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vaís		hacer
van		pasar

The Simple Future Tense

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You	comprar (buy)	ás
He/she	dar (give)	á
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la churrería más antigua—the oldest churros shop
 Adjectives must agree with the gender/number of the noun!

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PARENT/ CARER QUIZ

Ask your parent or carer to quiz you on some of the knowledge from English, Maths, Science or MFL. Record your scores below and see if you improve each time.

Date	Subject	Score /10	Did you improve from last time?

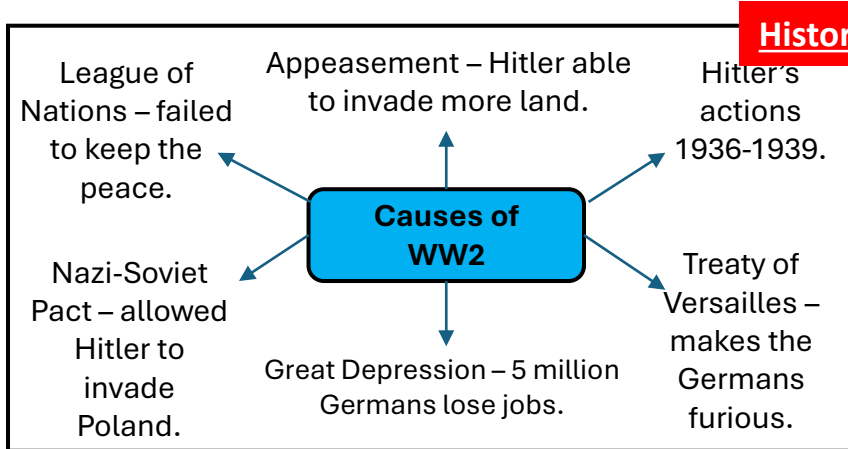
Knowledge Organiser: WW2

The Second World War was the biggest and most expensive war in history. It is estimated that up to 72 million people lost their lives.

- Timeline:**
- 1919 – Treaty of Versailles + League of Nations set up.
 - 1929 – Wall Street Crash leads to Great Depression.
 - 1934 – Hitler becomes dictator of Germany.
 - 1936 – Hitler invades Rhineland.
 - 1939 – Start of WW2.**
 - 1940 – Blitz begins + Dunkirk.
 - 1941 – Pearl Harbour attacked.
 - 1944 – D-Day.
 - 1945 – End of WW2.**

Causes of WW2

Events of WW2



The Blitz

Hitler wanted to attack British civilians.

Used *Luftwaffe* to bomb British cities.

How did the British people respond?

- Blackouts.
- Air raid sirens.
- Shelters.

Rationing - Controlling how much of something people can

Why? British supply ships being sunk by Germans.	What? Foods e.g butter, clothes petrol.	How? Given ration book with coupons.	When? Began in 1940 Ended in 1954.
--	---	--	---

The Dig for Victory campaign was set up to encourage people to grow their own food as an alternative to rationing.

Successes	Failures
<ul style="list-style-type: none"> • Good preparation. • Fair, equal system – rich and poor had to ration. 	<ul style="list-style-type: none"> • Lasted 14 years. • Rich could buy food on black market.

Absolutist	Refused to help the war effort.
Allied powers	Britain, France the USA.
Alternativist	Did not fight but helped the war in other ways.
Appeasement	When the Allies gave Hitler what he wanted to try to stop the war.
Axis powers	Germany, Italy and Japan.
Blitz	German bombing on British cities.
Conscription	Compulsory military service.
Dig for Victory	Campaign to encourage people to grow their own food.
DORA	Defence of the Realm Act.
Dunkirk	Town on coast of North France.
Evacuation	Removing vulnerable people from cities to the countryside.
Great Depression	Global economic crisis – over 5 million Germans lost their jobs.
Luftwaffe	The German Air Force.
Pacifist	Believed war was wrong, did not want to kill.
Pact	Peace agreement between two countries.
Pearl Harbour	USA naval base attacked by Japan.
RAF	Royal Air Force (British).
Rationing	Controlling how much of something people can buy.
U-boats	German submarines.

Evacuation

- **Operation Pied Piper** – 3 million people (mostly children) transported from cities to the countryside to survive the Blitz.
- Children moved in with a new parent + family for the war.

Pleasant?
Some kids enjoyed the countryside and lived in big homes.

Children had different experiences.

Unpleasant?
Some hosts only took kids for the money – did not treat them well.



Key Events: Dunkirk

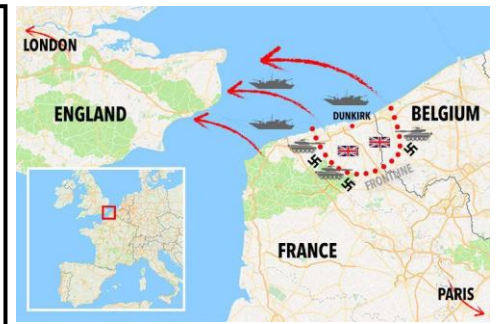
British soldiers overpowered by German army.

May 1940 – trapped at Dunkirk.

Churchill launched **Operation Dynamo** to return troops to Britain – used navy + fishermen volunteered boats.

British suffered 68,000 casualties.

BUT
300,000 troops were rescued.



Key Events: Pearl Harbour

Before 1941, the **USA** and **Japan** are not involved in the war.

7th December 1941

- Japan launch surprise attack on the US naval base, Pearl Harbour.
- Destroyed US Navy and killed 2,390 sailors.
- As a result, USA join the war.

Conscientious Objectors (COs)

A person who does not want to fight in the war because of their 'conscience'

3 types of COs:

- Alternativist
- Absolutist
- Pacifist

In WW1, **COs were imprisoned** - government needed soldiers and wanted to avoid protests about war.

WW1:
Public saw COs as **lazy, cowards and traitors**. Some were ignored by their families.

Attitudes to COs

WW2:
Government relaxed their attitude. But public and the press still were against it.



Key Events: D-Day

6th June 1944 – Britain and USA launch attack

5 beaches: Utah, Omaha, Gold, Juno, Sword

Utah Beach – US troops come under fire but only 200 casualties
Omaha Beach – bloodiest fighting – 2,400 US casualties

By nightfall, the Allied powers had taken control of the beaches – they had sent 156,000 men to the beaches on D-Day. This was a turning point. After many more battles, the war finally ended in 1945.



Alan Turing
Created the **Bombe** to quickly decipher German codes.

WW2 Intelligence

Bletchley Park:
Government Code and Cipher School – by 1944, 75% of employees were women. Helped to decode German messages and gather information.

Turing was arrested and chemically castrated for being a homosexual in 1952. He committed suicide in 1954.

Women and the Resistance to the Nazis



Noor Inayat Khan:
First female radio operator to be sent to France to gather intelligence. Betrayed and captured by the Nazis.

Stefania Podgorska:
Built secret room to hide Jewish people from the Nazis throughout WW2 alongside her future husband.



Knowledge Organiser: The Holocaust (1933-1945)

Holocaust Educational Trust definition of the Holocaust:

'The Holocaust was the murder of approximately six million Jewish men, women and children by Nazi Germany and its collaborators during the Second World War.'

The Nazis also persecuted people from other minority groups. These groups included Roma/Sinti (sometimes referred to as 'Gypsies'), people with disabilities, political opponents, homosexuals, Black people, Jehovah's Witnesses and others.

Key words:

Antisemitism - Hostility or prejudice against Jewish people. This is not new.

Discrimination - the unfair treatment of different categories of people, e.g. based on gender, race or religion.

Boycott - to refuse to buy, use, or go to, in order to make a protest.

The SS - Hitler's elite bodyguards and security.

Dilemma - a situation in which a difficult choice has to be made.

Moral - understanding the difference between right and wrong behaviours.

Complex - complicated.

Perpetrator - the person doing something unfair/bad to someone else.

Persecuted Person (Victim) - the person who is the target of unfair/bad behaviour.

Bystander - the person watching unfair/bad behaviour towards someone and doing nothing to stop it.

Resister - the person who sees unfair/bad behaviour and tried to stop it.

Concentration camps - a place where prisoners/Nazi opponents were sent and used as forced labour.

Anti-Semitic Laws:

- From 1933, Hitler and the Nazis introduced various anti-Jewish laws which restricted Jewish freedom and made their lives very difficult. These laws limited their lives politically, socially and economically.
- For example: Jews were forbidden from going to swimming pools. Jewish students were not allowed to attend school. Jewish actors were banned from performing.
- In 1935, the Nuremberg Laws were passed which removed Jewish citizenship and prevented Jews having relationships with non-Jews.
- These laws were legislative persecution against the Jews.

1936 Berlin Olympics:

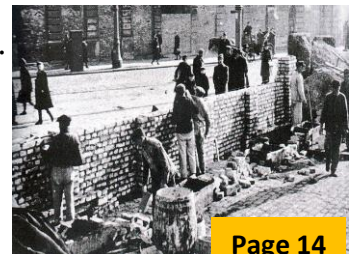
This saw a lull in the persecution of the Jews. Hitler wanted Germany to be on show to the world during the Olympic Games so toned down the anti-Semitism.

Kristallnacht:

In 1938, there was a change in the persecution of the Jews. Kristallnacht was the first use of violence against Jews. Over 9-10th November 1938, Jewish shops, synagogues and homes were smashed. The police and fire service were ordered to do nothing. 91 Jews were murdered and over 30,000 Jewish men were deported to Sachsenhausen concentration camp and elsewhere.

What was life like in a Jewish Ghetto?

- Short-term measure to contain and control the Jewish population.
- Often closed in by walls, fences or barbed wire.
- No one could leave or enter without a special permit.
- Jews received little food and the ghettos were overcrowded.
- Diseases such as typhus and tuberculosis were rife.
- Deportations to camps and shootings were very common.



Concentration camps:

- The first concentration camp was created in Dachau (Germany) in 1933.
- Concentration camps were where prisoners and opponents of the Nazi regime completed forced labour.
- Prisoners often died of disease, exhaustion and malnutrition.

Extermination (death) camps:

- In 1941, Hitler invaded the Soviet Union which saw the start of mass killings of Jews before they were sent to extermination camps. This is the Holocaust by bullets and took place in Eastern Europe.
- On 20 January 1942, Nazi leaders met to finalise their plans for the mass murder of every Jew in Europe, either by working them to death or killing them in poison gas chambers. This is known as the Final Solution and concerns extermination centres designed specifically for killing Jews.
- The six death camps were built by the Nazis during the Second World War when they controlled most of Europe. They were all in Poland. Auschwitz-Birkenau is an example of a death camp in Poland. 1.1 million people were murdered in Auschwitz Birkenau alone.

Blame:

It is very difficult to assign/ give blame for the Holocaust. Is it Hitler's sole fault or is it the Nazis or is it the German people?

Jewish Resistance

Jewish people resisted their treatment by the Nazis and their collaborators in a number of ways. Resistance was more common than initially argued by historians. For example:

- Armed resistance (Warsaw Ghetto Uprising)
- Rescue of other Jewish people (Bielski Partisans).
- Keeping records of Naz crimes and Jewish experiences.
- Continuing to take part in Jewish religious and cultural activities.



The Oneg Shabbat Archives



A secret school in the Kaunas Ghetto

Rebuilding Lives

WWII ended in Europe on 8th May 1945. For those Jews who had survived, liberation was the start of a long journey. It was not the joyous experience many survivors had dreamed of.

Jews had been living in fear for years; they were physically and mentally exhausted. Now, they had to gather up the strength to face what had happened. Many were extremely ill when they were freed.

As soon as they could, survivors began to look for their family. They looked in the registers of survivors in camps, contacted the Red Cross or returned home to see what was left. Most were not successful. The vast majority of survivors were the only survivors of their entire family.

Those who decided to return home faced a harsh reality: they had no family left, no home, no community and no possessions. The places they remembered as 'home' before the war were no longer the same. Many survivors ended up in Displaced Persons camps and faced long roads back to 'normality'.

Much of Jewish tradition and culture in Europe had been destroyed.

Resource Challenges

Resources are things that humans require for life or to make our lives easier. Humans are becoming increasingly dependent on exploiting these resources, and as a result they are in high demand.

Significance of Water

Resources such as food, energy and water are what is needed for basic human development.

FOOD



WATER



ENERGY



Without enough nutritious food, people can become **malnourished**.

People need a supply of **clean and safe water** for drinking, cooking and washing.

A good supply of energy is needed for a basic standard of living.

Demand outstripping supply

The demand for resources like food, water and energy is rising so quickly that supply cannot always keep up. Importantly, access to these resources vary dramatically in different locations

1. Population Growth

1. Currently the global population is **7.3 billion**.
2. Global population has risen **exponentially** this century.
3. Global population is expected to reach **9 billion** by 2050.
4. With more people, the **demand** for food, water, energy, jobs and space will **increase**.



2. Economic Development

1. As **LICs** and **NEEs** develop further, they require **more energy** for industry.
2. **LICs** and **NEEs** want similar lifestyles to **HICs**, therefore they will need to **consume more resources**.
3. Development means **more water** is required for food production as diets improve.



3. Changing Technology and Employment

1. The demand for resources has driven the **need for new technology** to reach or gain more resources.
2. More people in the **secondary** and **tertiary** industry has increased the **demand for resources** required for electronics and robotics.

Sustainable Food Supply

This ensures that **fertile soil**, **water** and **environmental resources** are available for future generations.

Organic Farming - The banned use of chemicals and ensuring animals are raised naturally.
Permaculture - People growing their own food and changing eating habits. Fewer resources are required.

Urban Farming - Planting crops in urban areas, i.e. roundabouts.
Managed Fishing - Includes setting catch limits, banning trawling and promoting pole and line methods.

C.S. NEE- Indus Basin Irrigation System

Largest irrigation scheme in the world. Involves large and small dams. Thousands of channels provides water to supports Pakistan's rich farmlands.

Advantages

Improves food security by adding **40% more land** for farming.
Increased yield & range of foods.

Disadvantages

Few take an unfair share of water.
Water is wasted and demand is rising due to **population growth**.
High cost to maintain reservoirs.



Food in the UK

Growing Demand

1. The UK imports about **40%** of its food. This increases people's **carbon footprint**.
2. There is growing demand for greater choice of **exotic foods** needed all year round.
3. Foods from abroad are more affordable.
4. Many food types are unsuitable to be grown in the UK.

Agribusiness



Farming is being treated like a **large industrial business**. This is increasing **food production**.
 + **Intensive farming maximises the amount of food produced**.
 + **Using machinery which increases the farms efficiency**.
 - **Only employs a small number of workers**.
 - **Chemicals used on farms damages the habitats and wildlife**.

Food Security is when people at all times need to have **physical & economic access** to food to meet their dietary needs for an active & healthy life. This is the opposite to **Food Insecurity** which is when someone is unsure when they might next eat.

Human



Poverty prevents people affording food and buying equipment.
Conflict disrupts farming and prevents supplies.
Climate Change is affecting rainfall patterns making food production difficult.

Daily Calorie Intake



This map shows how many **calories per person** that are consumed on average for each country. This can indicate the **global distribution of available food** and **food inequality**.

Impact of Demand



Foods can travel long distances (**food miles**). Importing food adds to our **carbon footprint**.
 + **Supports workers with an income**
 + **Supports families in LICs**.
 + **Taxes from farmers' incomes contribute to local services**.
 - **Less land for locals to grow their own food**.
 - **Farmers exposed to chemicals**.

Sustainable Foods



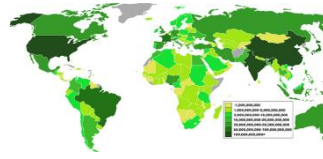
Organic foods that have little impact on the environment and are healthier have been rising. **Local food sourcing** is also rising in popularity.
 1. **Reduces emissions** by only eating food from the UK.
 2. **Buying locally sourced food** supports local shops and farms.
 3. A third of people **grow their own food**.

Physical



The **quality of soil** is important to ensure crops have key nutrients. **Water supply** needs to be reliable to allow food to grow.
Pest, diseases and parasites can destroy vast amounts of crops that are necessary to populations.

Food Supply



This map shows the amount of **food produced** in different countries. Whilst **Asia and North America** have **high** production outputs, **Africa and Central America** have **low** production outputs.



Water in the UK

Growing Demand

The average water used per household has risen by **70%**. This growing demand is predicted to increase by **5%** by 2020. This is due to:
 1. A growing UK population.
 2. Water-intensive appliances.
 3. Industrial and leisure use.

Pollution and Quality



Cause and effects include:

1. Chemical run-off from farmland can destroy habitats and kills animals.
2. Oil from boats and ships poisons wildlife.
3. Untreated waste from industries creates unsafe drinking water.

Management

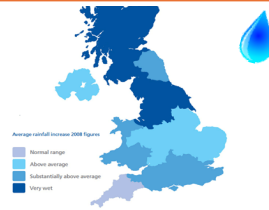
1. UK has **strict laws** that limits the amount of discharge from factories and farms.
2. **Education campaigns** to inform what can be disposed of safely.
3. **Waste water treatment plants** remove dangerous elements to then be used for safe drinking.

Deficit and Surplus



1. The north and west have a **water surplus** (more water than is required).
2. The south and east have a **water deficit** (more water needed than is actually available).
3. More than half of England is experiencing **water stress** (where demand exceeds supply).

Water stress in the UK



Water Transfer

Water transfer involves moving water through pipes from areas of surplus (Wales) to areas of deficit (London).
Challenges includes:
 1. Effects on **land and wildlife**.
 2. The **amount of energy** required to move water over long distances.

Energy in the UK

Growing Demand

The UK consumes **less energy** than compared to the 1970s despite a smaller population. This is due to the **decline of industry**.

Energy Mix

The majority of UK's energy mix comes from **fossil fuels**. By 2020, the UK aims for **15%** of its energy to come from **renewable sources**.

Changes in Energy Mix

1. **75%** of the UK's oil and gas has been used up.
2. Coal consumption has declined.
3. UK has become too dependent on imported energy.

Energy in the UK (continued)

Significance of Renewables

1. The UK government is investing more into **low carbon alternatives**.
2. **Renewable sources** include wind, solar and tidal energy.
 1. **Although infinite, renewables are still expensive** to install.
 2. **Shale gas deposits** may be exploited in the near future

Exploitation

- | | |
|-----------|--|
| Nuclear | New plants provide job opportunities .
Problems with safety and possible harm to wildlife.
Nuclear plants are expensive . |
| | Locals have low energy bills . Reduces carbon footprint.
Construction cost is high . Visual impacts on landscape. Noise from wind turbines. |
| Wind Farm | |

DUAL CODING

Based on some key knowledge from your *History* and *Geography* knowledge organisers, can you assign different parts of this knowledge to images to help you remember this in the future? Consider your images carefully.

Image	Key Knowledge

Image	Key Knowledge



Wet Wash

Dip your brush in water and brush it over the whole surface. Be generous with the water here — you want the paper glistening with moisture. Once you've wet the area, dip the brush in paint and apply lines of colour within the wet area, just like you would with a dry wash. The paint will blend together into one luminous wash of colour.

Watercolor Washes

There's more than one way to approach laying a watercolour wash — you can either do it on a wet surface or a dry one.

Dry Brush

Using very little paint and water to create a scratchy, "scraped-across" brushstroke. It can be used for an entire painting, but it's also perfect for creating texture in small areas.



Underpainting

An underpainting is essentially a monochrome wash that's used for the first layer of the painting. You'll add layers of transparent washes over the underpainting, which gives realistic and luminous effects.



Water colour Basics



Adding Texture with Salt

When salt is sprinkled on a wet wash, it starts to gather the watercolour pigments and makes the coolest texture. The effect will vary depending on the size of the grains of salt and the wetness of the paper, so experiment on scraps of watercolour paper before you commit on your final painting. Once the paint is dry, simply brush off the excess salt.

Lines, Hatching and Crosshatching

Watercolour can be used to paint lines of any size, shape and thickness. Just like with pen and ink drawings, you can place lines beside each other or layer them perpendicular to each other for a hatching or cross-hatching effect. For clean lines, use a small, pointed brush and load it with pigment, using only a dash of water. Then, paint a line on your paper. Depending on how much water you add to the brush, you can get dark, crisp lines or flowy, freeform lines.

Scumbling

Irregular motions are used to make either a line or layer on paint. It's basically like scribbling with your brush. Don't think too hard about it: just paint irregularly in an area. To really see the texture, use a relatively dry brush.

Layering Watercolours

Once a colour of paint has dried, you can add layers of watercolour to create dimension, texture and colour variation. Just know that the paper has to be completely dry in between washes so that the colours don't blend together and get muddy.

Year 9: Photo Frame

User centred design



So, who are the users? What do they do?

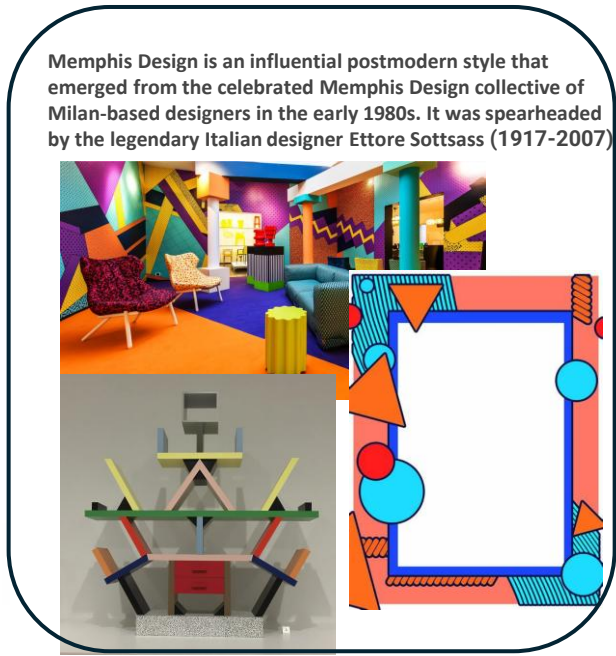


Manufacturer - Responsible for making the product.

Retailer - Responsible for selling and advertising the product.

Consumer -

- YOU!
- The person who the product is targeted at.
- The person who will buy the product.



Memphis Design is an influential postmodern style that emerged from the celebrated Memphis Design collective of Milan-based designers in the early 1980s. It was spearheaded by the legendary Italian designer Ettore Sottsass (1917-2007)

Production methods

One off production – a single unique manufacture of a bespoke item.

Batch production - is a manufacturing method where sets of identical goods go through production stages together.

Just in time production - is system of production that makes and delivers just what is needed, just when it is needed, and just in the amount needed.

Mass production - the production of large quantities of a standardised article by an automated mechanical process.

Technology Push is when new developments in materials and technologies improve existing products/create new ones.

Market Pull is when consumers demand improvements/new products. Often found by conducting market research.

Sustainable design: The 6 R's

- Recycle** Reprocess the material and make something else
- Reuse** Take a product and use for a different purpose without reprocessing it
- Repair** If something breaks, try to fix it
- Refuse** Refuse to buy or use something that is not needed
- Reduce** Consider making the item small or using less materials, and less impact on the environment
- Rethink** Look for alternative ways of making something or improving a design

Manufacturing processes

Vacuum forming is a simplified version of thermoforming, whereby a sheet of plastic is heated to a forming temperature, stretched onto or into a single-surface mould, and held against the mould by applying a vacuum between the mould surface and the sheet. The vacuum forming process can be used to make most product packaging and speaker casings.

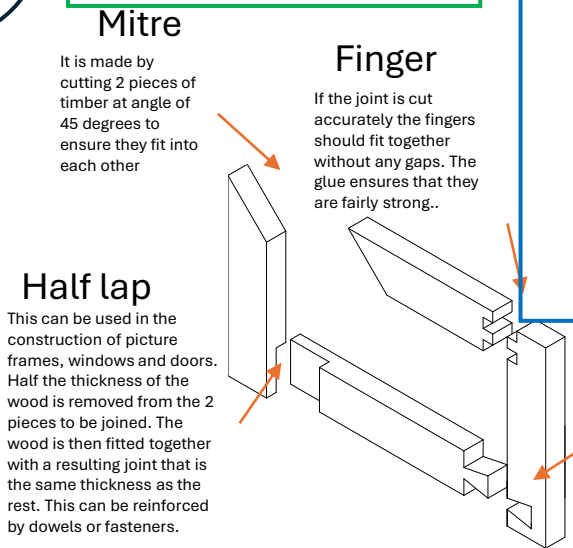
Laser Cutting is a technology that uses a laser to vaporize materials, resulting in a cut edge.

3d Printing process of making a physical object from a three-dimensional digital model, typically by laying down many thin layers of a material.

Line Bending It involves passing an electric current through a conductive wire creating a low heat. The plastic to be formed is then placed over the wire at the precise place where the bend is required.

Injection moulding the shaping of rubber or plastic articles by injecting heated material into a mould.

Die Cutting is a manufacturing process where a die is customised through cutting, forming or shearing to craft a desired shape.



Dovetail

The joint is very strong because of the way the 'tails' and 'pins' are shaped. This makes it difficult to pull the joint apart and virtually impossible when glue is added. This type of joint is used in box constructions such as drawers, jewellery boxes, cabinets and other pieces of furniture where strength is required. It is a difficult joint which requires practice. There are different types of dovetail joint and when cut accurately they are very impressive and attractive.

Year 9: Photo Frame User centred design

Engineering Vocabulary: Talk like an Engineer

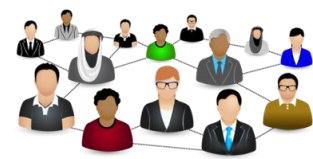
A client profile is a summary of a specific customer type that is based on available statistical information. It helps businesses to identify which potential clients are good prospects and which ones aren't. A client profile is part of a sales strategy that allows businesses to create marketing materials and form valuable connections with clients. The ideal client profile is a very clear description of the type of client you are targeting. A designer will use a client profile to ensure their work is successful and commercially viable.

Guarantee
Practical/workable/suitable for retail

Target Market

[tár-gət 'már-kat]

A group of people that have been identified as the most likely potential customers for a product because of their shared characteristics such as age, income, and lifestyle.



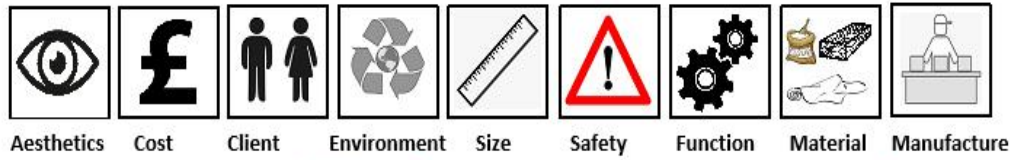
- Felling**- the process of cutting down trees.
- Veneer**-a thin decorative covering of fine wood applied to a coarser wood or other material.
- Seasoning**-process of drying out or removing moisture from natural wood.
- Prototype**- a draft model to test an idea.
- Smart materials**-materials that have one or more properties that react to stress, moisture, electric or magnetic fields, light, temperature, pH, or chemical compounds.
- Resin** -synthetic substance used in glues and varnishes.
- Adhesive**- glue.
- Crating**- a technique for drawing accurately using boxes.
- Isometric**- horizontal lines are at 30 degrees. A technique for drawing in 3D.
- CAD**- Computer Aided Design.
- Tri-Square**- used for marking straight lines parallel to a straight edge- not measuring.
- Coping Saw**- cuts curves and is used for think wood or plastic.
- Tenon Saw**- cuts straight edges on wood only.
- Glass Paper**- smooths wooded surfaces to prepare for painting.
- Working drawing** – an accurate drawing of a design with all the measurements used in manufacturing.
- Finger Joint**- used for box joints. Interlocking fingers.
- Butt Joint**- pushing two ends of a material together.
- Dowelling Joint**- small wooden rods used to join wood.
- Iterative Design**- circular design process, continued development and improvement with testing.
- Sustainable** –renewable, green design.
- Sustainable design** is the intention to reduce or eliminate negative environmental impacts through design.

- Jigs and Templates** enable more than one part to be made several times, quality control in batch production.
- Bench Hook** is for steadying and supporting work, it hooks into the bench vice.
- Vice** Used to clamp work to the bench to keep it steady.
- Glass Paper** is for smoothing work.
- Flat Files** are also use for smoothing.
- M.D.F.** Medium Density Fibreboard (Manufactured wood made from wood fibres and glue).
- Pine**: A natural softwood.
- Acrylic**: A type of plastic.
- Copper**: A conductive metal wire used for electronic circuits.
- Conductive**: allows electrical current to travel or 'flow' through it.
- Risk Assessment** a process of evaluating the potential risks that may be involved in a projected activity or undertaking.
- L.E.D.**: Light Emitting Diode (a small light to indicate power in a circuit).
- Resistor**: In electronic circuits, resistors are used to reduce current flow.
- U.S.B.**: Univeral Serial Bus; electrical connector.
- Design Situation**: A problem that has been identified.
- Design Brief**: A statement to explain how you will solve the problem (design situation)
- Design Specification**: A list of requirements your product must have or include to be successful and solve the design situation.
- Prototype**: a fully functional, full size working product. A test model or first draft, sometimes in cheaper materials.

<p>Ferrous</p> <p>These are metals that contain iron. This means the metal will rust.</p>
<p>Non-Ferrous</p> <p>These are metals that do not contain iron and therefore do not rust.</p>
<p>Alloy</p> <p>is a metal (parent metal) combined with other substances resulting in superior properties such as; strength, hardness, durability, ductility, tensile strength and</p>
<p>Thermoplastic</p> <p>These plastics can be re-heated and re-shaped in various ways. They become moldable after reheating as they do not undergo significant chemical change</p>
<p>Thermoset</p> <p>Once heated and moulded, these plastics cannot be reheated and remoulded. The molecules of these plastics are cross linked in three dimensions, and this is why they cannot be reshaped or recycled.</p>
<p>ERGONOMICS</p> <p>Using data to make a product comfortable and easy to use for the user.</p>
<p>ANTHROPOMETRIC</p> <p>Data is used to determine the size, shape and/or form of a product, making it more comfortable for humans to use and easier to use.</p>

Textiles

Year 9 Rotation Textiles Knowledge Organiser: Methods of fabric decoration



KEY POINTS TO REMEMBER

There is a difference between Analysing and Stating. Analysing will always get you more marks than Stating.

Denotation: Literally stating what something is

Connotation: Explaining the meaning of something, what it represents.

See example below:
This is a pink heart.
It represents, love and friendship.

Decorative hand embroidery



Annotating design ideas and work of other designers:
Use the following questions to help you annotate your work:

1. What colours do you use a lot of? What effect does this give?
2. Who do you think your designs are aimed at? Why?
3. Explain what you like/dislike about your work and why that is.
4. What techniques will you use to create your design and why?
5. Could different techniques be used to create different effects?
6. How does your design fit into the theme?

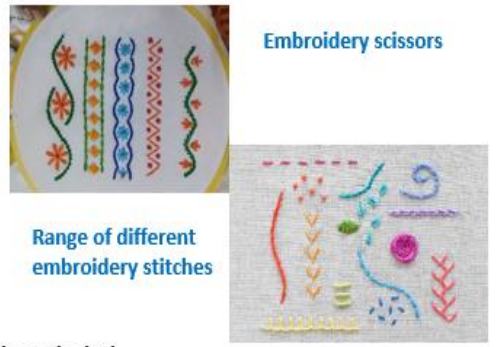
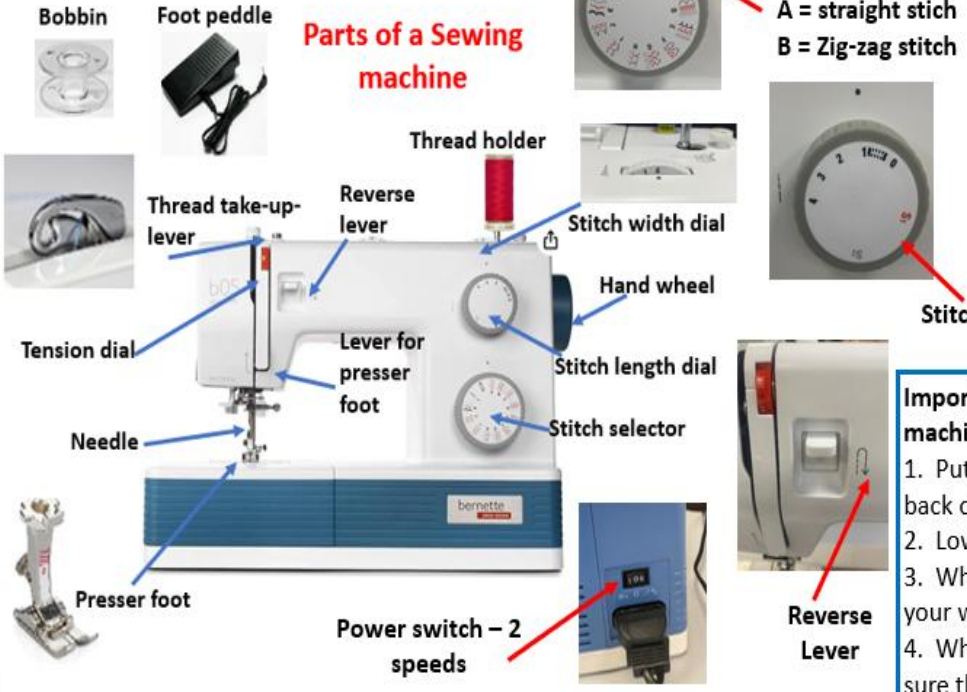
Batik

Batik is a traditional Textile technique which combines painting and dyeing. This is traditionally made by dipping a specially designed **Tjanting** tool into **melted wax** and painting various patterns onto pieces of white fabric.

The wax stays on the fabric and often cracks after it hardens. The fabric is then **dye**d, the dye seeps the cracks and makes fine lines.

When the wax is removed, beautiful patterns appear on the cloth.

Batik fabric can be made into garments, scarves, bags, table-cloths, bedspreads, curtains and other decorative items.



Important points to remember when using a sewing machine:

1. Put both threads under the **presser foot** and to the back of the machine.
2. Lower the **presser foot** down onto your fabric.
3. When lowering the needle and taking it out of your work always turn the **hand wheel towards you**.
4. When taking your work out of the machine make sure the **take-up-lever** is at the **top** and you can see it.

Graphics

Graphic Design

Vocabulary:

Illustration: a picture illustrating a book, newspaper, etc...

Visualisation: the representation of an object, situation, or set of information an image.

Depiction (depict): represent by a drawing, painting, or other art form •

Thumbnail: incredibly rough initial sketch •

Initial Idea: Refined more accurate idea, improving the quality and making it look much cleaner.

Developed Idea: refine an initial idea to better meet the design brief.

Rendering: adding colour or shade to create texture and depth

Elucidate: make (something) clear; explain.

Depiction (depict): represent by a drawing, painting, or other art form •

Satirical: from the word sarcastic, to be critical or mock others •



An illustration is a decoration, interpretation or visual explanation of a text, concept or process, designed for integration in print and digital published media, such as posters, flyers, magazines, books, teaching materials, animations, video games and films. An illustration is typically created by an illustrator. Illustrations can also represent scientific images of flora, medicine or different processes, a biological or chemical processes or technical illustrations to give information on how to use something.

What is the purpose of illustration?

Examples of where you might find illustration might be in picture books, advertising, magazines, newspapers, instruction manuals, posters for gigs or movies, products like T-shirts or greeting cards and even in fashion and film. An illustrator is responsible for taking an idea and turning it into something visual.

What is the difference between an illustration and a drawing?

An illustration is a drawing (or painting, collage, engraving, photo, etc.) that explains something. The illustration doesn't have to be drawn—a photo in an encyclopaedia is also an illustration, because it explains what is written. So, if your drawing is not explaining something, it is a work of art, not an illustration.



Onomatopoeia

visual artwork



Markers are a great way to make 2D drawings look 3D by adding light and dark tones. With practice they are more realistic and vibrant than painting and pencil crayons. Many product designers and illustrators use this method.



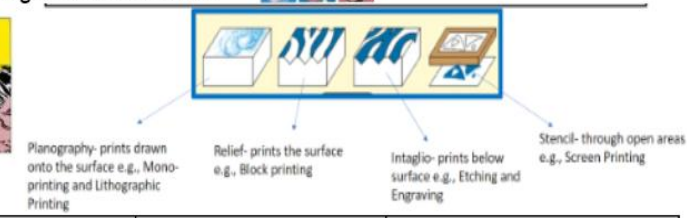
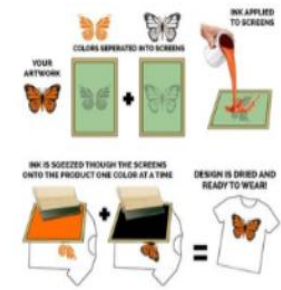
Jon Klassen is a Canadian illustrator and cartoonist specialising in children's picture books, editorial cartoons and caricatures.



What is Pop Art?

Pop art is a fun form of art. Artists takes their images from **everyday culture**, from the objects that surrounded them in their daily lives.

Pop art works also include elements of popular culture such as newspapers, magazines or comics. The designs use cartoon styles with bright vibrant colours and repetitive patterns. A famous pop artist who worked in this comic strip style is called Roy Lichtenstein. Some of Lichtenstein's designs are shown below:



Printing Technique	Outline of process	Uses/Examples
Screen Printing (Stencil)	Images are printed through a screen mesh using stencilling techniques.	<ul style="list-style-type: none"> • fine art prints • posters • textiles (fabric, t-shirts) • interiors (wallpapers, curtains)
Block Printing (Relief)	Carving patterns, shapes and designs into a 'block'. The 'block' could be made of wood, acrylic plastic sheet, lino (linoleum) or metal.	<ul style="list-style-type: none"> • fine art prints • printing lengths of fabrics • greeting cards
Engraving (Intaglio)	Making incisions or grooves in a plate, covering the plate with ink, and wiping the surface, so that the ink remains in the grooves.	<ul style="list-style-type: none"> • Fine art prints • Posters • Books illustrations
Mono Printing (Planographic)	Draw designs directly onto an inked surface lay a piece of paper on top of the inked surface to pick up the design.	<p>Mono-printing is mainly used for fine art prints and textiles work. It is used for single prints or very small 'runs'.</p> <p>Lithographic is used for magazines and posters which are printed in high volumes.</p>

Year 9 Food Studies Rotation

Most food poisoning can be traced to one of three major causes: bacteria, parasites, or viruses. These pathogens can be found on almost all of the food humans eat. However, heat from cooking usually kills pathogens on food before it reaches our plate. Foods eaten raw are common sources of food poisoning because they don't go through the cooking process.

Occasionally, food will come in contact with the organisms in faecal matter or vomit. This is most likely to occur when an ill person prepares food and doesn't wash their hands before cooking.

Meat, eggs, and dairy products are frequently contaminated. Water may also be contaminated with organisms that cause illness.

Sources of food poisoning

Food can become contaminated during production, preparation and retailing. The main sources are:

- Raw food-for example meat, poultry, shellfish and eggs.
- People- food-poisoning bacteria are found on the skin, in septic wounds, in the nose and sometimes in the gut.
- Pests- for examples rats, mice, cockroaches, ants, wasps and flies.
- Animals- domestic pets and farm animals can carry *E.coli* in their intestines.
- Air and dust- food must be covered as bacteria in the air can settle on the surface.
- Water- bacteria such as *Salmonella* are carried in untreated water.
- Soil- bacteria and spores can survive in soil, so can be found on unwashed vegetables.
- Food waste-waste needs to be disposed of correctly as it could be a source of contamination and may attract pests.



Conditions necessary for food poisoning

Visible symptoms	Non-visible symptoms
Shivering Diarrhoea Vomiting	Feeling tired or weak Stomach ache Headache Feeling nauseous (sick)

Bacteria can grow rapidly in the correct conditions. A single **bacterium** can divide into two by the process called **binary fission**. A single bacterium can produce 16 million bacteria in only 12 hours.

Food poisoning bacteria have four essential requirements for growth:

- **Food-** bacteria grow rapidly in high risk foods that are good sources of protein; such as cooked meat and poultry, shellfish, and seafood, undercooked or lightly cooked eggs, unpasteurised milk and cheeses, cooked rice and pasta, and salads.
- **Moisture-** bacteria cannot multiply without moisture, which means that they do not usually affect dried foods or products with high quantities of salt or sugar, which absorb water.
- **Warmth-** most bacteria multiply at **ambient temperature** -normal room temperature. This falls within the danger zone between 5 °C and 63 °C. Below 5 °C most bacteria are unable to multiply rapidly, and below -18 °C they become **dormant**. Cooking food at high temperatures above 63 °C will destroy most bacteria; when cooked, the food should reach 75 °C for at least two minutes.
- **Time-** in the right conditions the number of bacteria can double every 20 minutes.

The acidity and alkalinity of a food can influence the growth of bacteria. If conditions are too acidic or too alkaline, bacteria can not grow.

Symptoms of food poisoning

- A symptom is a sign or indication of a disease.
- The body reacts to bacteria or toxins by developing symptoms such as diarrhoea, vomiting, stomach pains, headache and sweating.
- Some of these symptoms are visible and some are non-viable

Symptoms of food allergies

A food allergy is a serious reaction to a food or ingredients in food. It is caused by the body's immune system reacting to an allergen. If the reaction to a food is a bad one, it could give the following symptoms:

- Skin rash
- Itchiness of skin, eyes and mouth.
- Swollen lips, face, eyes
- Difficulties in breathing.

In severe cases, it can bring about anaphylactic shock- the person develops swelling in their throat and mouth, making it difficult to speak or breathe. This can lead to death if appropriate treatment, such as an EpiPen, is not used quickly.

Symptoms of food intolerances and coeliac disease

Some people have a sensitivity to certain foods, which can cause symptoms such as nausea, abdominal pain, joint aches and pains, tiredness and weakness. This is called a food intolerance- this is not an allergic reaction and it does not involve the immune system.

Coeliac disease is neither a food allergy nor a food intolerance but an autoimmune disease caused by a reaction of the immune system to gluten- a protein found in wheat, rye and barley. The symptoms of coeliac disease vary from person to person and can range from mild to severe. Symptoms of coeliac disease include:

- Severe diarrhoea, excessive wind and/or constipation
- Persistent or unexplained gastrointestinal symptoms, such as nausea and vomiting.
- Recurrent stomach pain, cramping or bloating.
- Iron, vitamin B12 or folic acid deficiency.
- Anaemia
- Tiredness
- Sudden or unexpected weight loss.

Symptoms of lactose intolerance include:

- Abdominal pain
- Nausea
- Diarrhoea
- flatulence

Environmental Health Officers (EHOs) are responsible for carrying out measures to protect public health and to provide support to minimise health and safety hazards.

Role of EHOs

- They look after the safety and hygiene of food through all stages of the manufacture or production from distribution to storage and service.
- They help develop, co-ordinate and enforce food safety policies.
- They have the right to enter and inspect food premises at all reasonable hours and can visit without advance notice.
- They carry out routine inspections of all food premises in their area; the frequency of routine inspections depends on the potential risk posed by the type of business and its previous record- some high-risk premises may be inspected at least every six months, others much less often.
- They visit premises as a result of a complaint.
- They have powers of enforcement and can close businesses in extreme cases.

Responsibilities of EHOs

- They check that food producers handle all food hygienically so as not to give customers food poisoning.
- They check that food is being kept at the specific temperatures at which it should be stored or held.
- They check that staff are properly dressed, with clean nails, no jewellery, hair covered or tied back, and showing good hygiene habits.
- They review processes in the workplace, such as the handling of food, use of equipment, use of colour coded chopping boards, washing-up and disposal of waste.
- They inspect food stores-fridges, freezers and dry stores.
- They check stock rotation and temperature logs
- They check that equipment is clean, well maintained and with safety notices if appropriate.
- They check the temperature of the food when it is cooked with probes to ensure that it is at the correct temperature.
- They ask questions to check compliance with the law or good practice
- They identify potential hazards
- They review safety management systems and plans
- At the end of an inspection they give verbal feedback, discuss any problems and advise on possible solutions. They complete a report of inspection findings, which tells the business what **enforcement action** is to be taken.



DT: Food



Enforcement action

Enforcement action is required by law following an inspection from an EHO.

Enforcement action can range from verbal advice, informal or formal letters, and notices through to prosecution.

Formal Inspection letters- tells the food business which issues must be addressed to comply with the law. The EHO may revisit the business to check that the issues have been resolved.

Hygiene Improvement Notices- An EHO can serve a Hygiene Improvement Notice when they believe that a food business is failing to comply with food hygiene regulations. This notice will specify what's going wrong and what needs to be done by which date. The EHO will visit again to see if the required work has been done. If it has not improved, it can lead to a fine or imprisonment.

Hygiene Emergency Prohibition Notices- If an EHO believes that there is a significant risk to health and injury, a Hygiene Emergency Prohibition Notice may be served. The notice stops the use of the unsafe equipment, processes or premises immediately. It can only be removed by an EHO once the issues have been addressed.

Voluntary closure- A food business may elect to close voluntarily to carry out improvements. However, should the business reopen before the improvements are completed, the EHO will serve a Hygiene Emergency Prohibition Notice.

Seizure and detention of food- EHOs have the power to inspect and seize food suspected of not meeting food safety regulations. Food is taken if there is suspicion that it is contaminated and is likely to cause food poisoning or disease. Seized food may undergo microbiological examination and testing.

Condemnation of food- In order to condemn or seize food, the EHO must present their findings to a court. They will consider the information and decide whether the food poses a risk to human health and whether or not to condemn it.

Voluntary surrender of food- The owner of a business may surrender unfit food to the EHO voluntarily. This would avoid the involvement of the court.

Food Safety Act 1990

- This act is concerned with all aspects of food production and sale.
- It affects everyone involved in the production, processing, storage, distribution and sale of food.
- It ensures that all food produced is safe to eat.
- The act states that it is an offence to make food sold for human consumption unsafe to eat.
- A food producer or retailer may not add any substances to food, or subject food to any process or treatment, which will make it harmful to health.
- An EHO may inspect any food intended for human consumption at any reasonable times. If the food is regarded as unfit for human consumption, it may be seized.
- The legislation also provides a defence for food producers, processors and retailers. They must prove that all reasonable precautions were taken to prevent a food safety incidence. This is called **due diligence**.
- Failure to take reasonable precautions can result in prosecution.
- Magistrates' courts may impose a fine, prison sentence or both for offences committed.

Hazard analysis and critical control points (HACCP)

This is a process that is designed to help look at how you handle food and to put procedures in place to ensure that the food you produce is safe to eat.

Every business that produces, sells or serves food is required to have a HACCP plan in place with a written **food safety plan**. It is the responsibility of the owner of the business to develop an appropriate food safety management system based on HACCP. HACCP systems should apply the following principles:

1. Create a flow chart or table showing each step in the preparation, making, serving and storing of each dish.
2. Each step should be analysed to identify the hazards. Hazards can be:
 - Physical- foreign materials can cause injury to the consumer; these might be metal or plastic, or natural hazards such as bones in fish.
 - Biological- food can become infected by bacteria, which might lead to food poisoning
 - Chemical- potentially dangerous chemicals such as cleaning fluids can contaminate food.
3. Identify what can be done to control (prevent) the hazard.
4. Set guidelines on how to ensure food is going to be safe to eat- these are known as critical limits- and keep a record of this.
5. When new dishes are made, there needs to be a HACCP review to ensure that they are safe to eat.
6. All the documentation relating to the HACCP needs to be kept safe.

Love Food Hate Waste

BEST BEFORE

‘Best before’ refers to quality: your food will be at its best before the date given. After this date, it might not be at its best, but it will still be safe to eat. Use your senses to make a judgement.

Depending on how your food is stored, it has the potential to be good enough to eat for a long time after this date. Here’s a guide to a few key food items and how long after the date they can be eaten:

- Crisps – one month
- Biscuits – six months
- Cereals – six months
- Canned food – 12 months
- Confectionary – 12 months
- Pasta sauce – 12 months
- Dried pasta – three years!

USE BY

‘Use by’ refers to safety: you must not eat food past the ‘use by’ date. You cannot always smell the bacteria that causes food to spoil, so after the ‘use by’ date, the food may appear perfectly fine to eat, but could still lead to food poisoning. Let’s be absolutely clear: you should NOT eat food after the ‘use by’ date - even if it looks and smells OK.

Top tip: you can freeze food right up to and including the ‘use by’ date. If you’re not sure you will eat it in time, freeze it for another day!

DISPLAY UNTIL / SELL BY

These dates are for the retailers – not us at home. You don’t need to worry about these.

Some products, such as uncut fruit and vegetables and wine, for example, aren’t required to have a date label, and there are specific regulations referring to hen’s eggs, which require the use of a Best Before date.

An average family of four can save £60 a month simply by reducing the amount of food they throw away. There are lots of simple food hacks and tips on this website to help you learn how to be smarter with handling food from the moment you start thinking about shopping through to when you are cooking, preparing and serving your meals.

Leftover food recipes – not sure what to do with the odd bits of food left in your fridge? Take a look at the love food hate waste website [leftover recipes](#) to find something to create with your leftovers. Tip: type in two or three of your leftover foods in the search bar to find relevant recipes to make.

Freeze leftovers – cooked or prepared too much? No problem – just pop them in a container or sealed bag, write the date and what the food is on a label and place it in your freezer. You can freeze most food. **Planning how to be a smarter shopper** – not everyone likes to plan, however, being ahead of the game with your weekly shopping will help you save a few pounds so it’s worth it. Here are a few tips to think about:

•**Make planning your meals a fun family activity** – ask your younger folk to choose something they would like to help you make during the week. If you have some fussy eaters this might also save some food from the bin too as they are more likely to eat food they’ve helped to make.

•**If you live with friends** – share an evening meal once a week and make it a social affair. Decide what you’ll cook before you go shopping.

•**Plan some one-pot meals** – so meal cooking is simple and you can use up what’s left in your fridge too. You can switch the ingredients to use up the food you already have. **Plan the rest of your meals around your favourites** – remember that you can include frozen food or staples from your cupboard. Mixing up the types of food you buy and use for your meals means there’s less chance of having too much fresh food that is likely to go off before you can use it.

Top tip – why not write each of your favourite recipes onto one small piece of card per recipe (suggestion: cut up an old cereal box) plus one card for each day of the week. Stick the days of the week onto your fridge or cupboard door in a row. Then you can easily play around with your meals for the week under each day until you are happy. Plus – you can easily swap meals around if you don’t fancy one on the planned day. Encourage your family, partner or housemates to join in too.

Know what you need before you get to the shop by making a list – and stick to it. We know that this is harder than it seems, however, it’s worth finding a way that works best for you. Make it easy and simple by following some of these ideas:

•**Fridge/cupboard/freezer shelfies** – take a snap of the food you have left in your fridge, cupboard and freezer before you hit the shop to remind you what you have already got. This will save you from buying more than you need.

•**Keep an ongoing list on your phone** - using your notes app or send a text message to yourself.

•**Pop some note paper on your fridge door** - and make a note of things you are running out of.

•**Prepare your list in the layout of your supermarket** – this will enable you to spend less time shopping and more time at home enjoying your food.

•**Plan weekly shops** – by reducing the number of times you visit a supermarket you will reduce the temptation to buy extras!

290,000 TONNES
OF MILK THROWN AWAY EVERY YEAR
THAT'S EQUAL TO
27
EIFFEL TOWERS

20 million
slices of bread thrown away each day, the same weight as Wimbledon's Centre Court roof.

13 billion
portions of fruit and veg were discarded in 2012. That's 7 million people's 5-a-day per year.

EVERY DAY
THE UK THROWS AWAY
THE SAME WEIGHT IN
BANANAS AS A BLUE WHALE

AVOID THE BIN. THROW IT ALL IN!

LOVE FOOD hate waste

REVISION CLOCK

Based on your current DT rotation, complete a revision clock which revises a number of the key pieces of knowledge included both on your knowledge organiser sheet and from your lessons. For each 5 minute section, add a new title and key information.

The diagram is a large square divided into 12 equal segments by lines radiating from a central clock face. The clock face is a circle with numbers 1 through 12 around its perimeter and a central dot. Each segment is a wedge-shaped area extending from the center to the outer edge. There are 12 empty rectangular boxes, one in each segment, intended for students to write a title and key information for that 5-minute revision period. The boxes are located at the outer corners of each segment. The top-left segment contains the number '1'.



What Makes a Good Song?

Exploring Popular Songs and Musical Arrangements

A. Popular Song Structure

SONG STRUCTURE – How a song is made up of or divided into different sections (see below) and the order in which these sections occur. To work out the structure of a song, it's helpful to analyse the **LYRICS** and listen to a recording for the song (for instrumental sections).

INTRO – often shortened to 'intro', the first section of a song which sets the mood of the song and is sometimes, but not always, an instrumental section using the song's chord pattern.

VERSES – songs normally have several verses. Verses introduce the song's theme and have the same melody but different lyrics for each verse which helps develop the song's narrative and story. Songs made up entirely of verses are called **STROPHIC**.

LINK – a optional short section often used to join different parts of a song together, often instrumental, and sometimes joins verses together or appears at other points within a song.

PRE-CHORUS – an optional section of music that occurs before the **CHORUS** which helps the music move forward and "prepare" for what is to come.

CHORUS – occurs several times within a song and contains the most memorable **HOOK/RIFF**. The chorus relays the message of the song and is repeated with the same melody and lyrics each time it is heard. In popular songs, the chorus is often repeated several times towards the end of the song.

MIDDLE 8/BRIDGE – a section (often 8 bars in length) that provides contrasting musical material often featuring an instrumental or vocal solo using new musical material allowing the performer to display their technical skill on their instrument or voice.

CODA/OUTRO – The final section of a popular song which brings it to an end (Coda is Italian for "tail"!)

B. Key Words

LYRICS – The words of a song, usually consisting of **VERSES** and a **CHORUS**.

HOOK – A 'musical hook' is usually the 'catchy bit' of the song that you will remember. It is often short and used and repeated in different places throughout the piece. Hooks can be either **MELODIC, RHYTHMIC** or **VERBAL/LYRICAL**.

RIFF – A repeated musical pattern often used in the introduction and instrumental breaks in a song or piece of music. Riffs can be rhythmic, melodic or lyrical, short and repeated.

MELODY – The main tune of the song often sung by the **LEAD SINGER**.

COUNTER-MELODY – An 'extra' melody often performed 'on top of' the main melody that 'fits' with it a **DESCANT** or **INSTRUMENTAL SOLO**.

TEXTURE – The layers that make up a song e.g., *Melody, Counter-Melody, Hooks/Riffs, Chords, Accompaniment, Bass Line*.

C. Lead Sheet Notation and Arrangements

A **LEAD SHEET** is a form of musical **NOTATION** that contains only the essential elements of a popular song such as the **MELODY, LYRICS, RIFFS, CHORDS** (often as guitar chord symbols) and **BASS LINE**; it is not as developed as a **FULL SCORE ARRANGEMENT** and is open to interpretation by



performers who need to use and adapt the given elements to create their own musical **ARRANGEMENT**: their "version" of an existing song.

COVER (VERSION) – A new performance, remake or recording by someone other than the original artist or composer of the song.

D. Conjunct and Disjunct Melodic Motion

CONJUNCT MELODIC MOTION – Melodies which move mainly by step or use notes which are next to or close to one another.



DISJUNCT MELODIC MOTION – Melodies which move mainly by leap or use notes which are not next to or close to one another.



MELODIC RANGE – The distance between the lowest and highest pitched notes in a melody.

E. Song Timbre and Sonority (Instruments that are used to Accompany Songs)



Pop Bands often feature a **DRUM KIT** and **PERCUSSION** to provide the rhythm along with **ELECTRIC GUITARS (LEAD GUITAR, RHYTHM GUITAR and BASS GUITAR)** and **KEYBOARDS**. Sometimes **ACOUSTIC INSTRUMENTS** are used such as the **PIANO** or **ACOUSTIC GUITAR**.



ORCHESTRAL INSTRUMENTS are often found in pop songs such as the **STRINGS, SAXOPHONE, TROMBONE** and **TRUMPET**. Singers are essential to a pop song - **LEAD SINGER** – Often the "frontline" member of the band (most famous) who sings most of the melody line to the song. **BACKING SINGERS** support the lead singer providing **HARMONY** or a **COUNTER-MELODY** (a melody that is often higher in pitch and different, but still 'fits with' the main melody) and do not sing all the time but just at certain points within a pop song e.g. in the chorus.

Knowledge Organiser

Year 9 Dance

- Action**
 - Travel
 - Turn
 - Elevation
 - Gesture
 - Stillness
 - Use of different body parts
 - Floor work
 - Transfer of weight
- Dynamics**
 - Fast/slow
 - Sudden/sustained
 - Acceleration/deceleration
 - Strong/light
 - Direct/indirect
 - Flowing/abrupt
- Spatial Content**
 - Pathways
 - Levels
 - Direction
 - Size of movement
 - Patterns
 - Spatial design
- Relationship Content**
 - Lead and follow
 - Mirroring
 - Action and reaction
 - Accumulation
 - Complement and contrast
 - Counterpoint
 - Contact
 - Formations



- Features of production**
- Staging/set:** Eg- projection, furniture, structures, backdrop, screens and features of these such as colour, texture, shape, decoration, materials.
- Lighting:** Eg- Colour, placement, direction, angles etc.
- Properties:** Eg- Size, shape, materials, how used etc.
- Costume:** Footwear, masks, make up, accessories. Features such as colour, texture, material, flow, shape, line, weight, decoration and how they define character or gender, identify characters, enhance or sculpt the body and enhance the action.
- Dancers:** Number and gender.
- Aural setting:** Eg: Song, instrumental, orchestral, spoken word, silence, natural sound, found sound, body percussion, style, structure and musical elements such as tone, pitch and rhythm.
- Dance for camera:** Eg- Placement, angle, proximity, special effects.

Some Like It HipHop

Our story is also influenced by the actions of Fascist dictators: Benito Mussolini and Adolf Hitler in Europe in the 1930's and 1940's, particularly the plot line about burning books and restricting education. Restricting and controlling education is key for a Fascist Dictator to control his people. Education and knowledge are power, the most powerful commodity that any human can have. Education and knowledge are the catalyst to revolution.

What is Some Like It HipHop about?

Some Like It Hip Hop is a story of love, mistaken identity and revolution, in a city where books are banned and women are subservient to men. The story revolves around two central female characters, Jo-Jo and Kerri. When they are discovered breaking the rules, they are thrown out of the city into a cold and dark wasteland. In order to survive, they have only one option – to return to the city disguised as men. It doesn't take long for the two women to prove their worth, and it also doesn't take long for Jo-Jo to fall in love with Simeon, the only educated man in the city. If only she wasn't wearing a moustache.

MIND MAPS

Mind maps are a great way to revise key information. Have a read through the information on your **Dance** and **Music** pages and then use the information below to help you create mind maps.

HOW TO TAKE NOTES

MIND MAPPING AND BRAINSTORMING

ABOUT





Mind Mapping and Brainstorming is a highly visual method of representing information

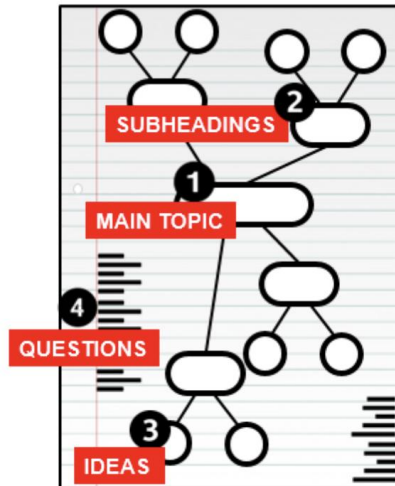
- ✓ Establishes links and relationships between ideas and concepts
- ✓ Can be used to take notes as part of the Cornell Method
- ✓ Effective when working from textbooks or written notes

HOW

This works far better on paper than as a digital method

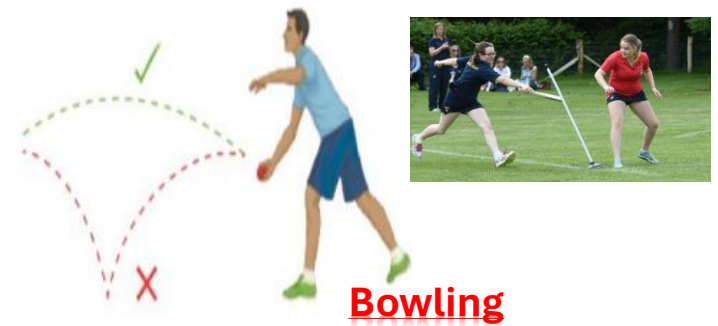
Make sure you start in the centre of the page

- 1  TOPIC
- 2  SUBHEADINGS
- 3  IDEAS
- 4  QUESTIONS



- 1 Determine the overall topic or theme
Write this in the centre of your page and circle it
If the main focus of your mind map changes – create an additional mind map – do not add the new focus to the mind map that you are already working on.
- 2 You will need to add major facts (subheadings) that relate to your main topic
- 3 Each subheading will have at least one idea related to it.
Make sure that your ideas are visually distinct from your subheadings
- 4 Use the edges of your document to write questions
These should relate to the ideas in your mind map
You could also use these areas to expand on points that need additional clarification on the main mind map

ROUNDERS



Rules to remember

1. When batting you must be stood in the batting square and not step out of it.
2. You only get one ball bowled at you, you must run whether you hit it or not.
3. A 'no ball' is above the batter's head or below their knee, the wrong side of their body or too wide. It must be bowled under arm and not bounce before the batter hits it.
4. If you hit the ball behind you, you must wait at first post until the next batter hits, then you can run on.
5. Always take the bat with you when running. You can only use one arm to hold the bat when batting.
6. If you get to 2nd post you score half a rounder, if you get all the way past 4th, you score a full rounder.
7. When waiting at a post you must always have one hand on the post. When you run past 4th you must touch the post with your bat on the way through.
8. Fielders must stand on the inside of the post if on a base, and the fielders around the outside must NOT stand between posts and cause obstruction to batters running.

Key Terms

Backstop - The role of the rounders backstop is guiding the bowlers throw to the batter. Back stop rounders cup their hands in the appropriate ending space for the ball. That means the backstop's hands become a target for the bowler.

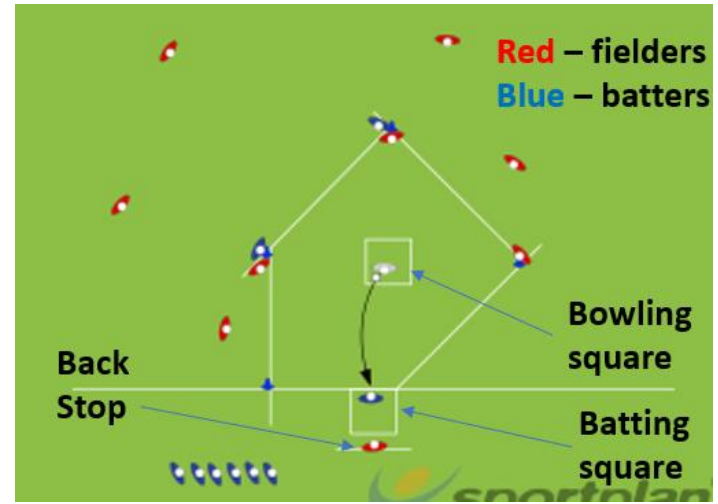
Backward Area - In rounder terminology the backward area gets represented by an area of ground behind the front line of the batting zone.

Backward Hit - Making a backward hit means the ball got struck directly behind and into the backward area.

Officials- The role of officials in rounders is overseeing the rules of the game and promoting fair play. The regulations allow two rounders officials (umpires) for officiating a rounders game.

Skills	Explanation
Batting	To hit the ball the furthest distance to be able to run around all the posts and score a rounder.
Bowling	Accurate bowling is needed so the batters have a chance to hit the ball. It must be bowled within the batter's knee to shoulder on the side they are holding the bat.
Catching	Important for fielders when receiving the ball to stump the posts, to get players out before they reach the posts.
Throwing	Accurate throwing is needed, especially for fielders when passing the ball to other players to stump posts to get the opposition out.
Running	You need speed when on the batting team to be able to get around the posts as quickly as possible to score a half or a full rounder. Fielders need speed to be able to get to the ball quickly when it has been hit far by a batter.

Set up



CRICKET

There are a number of different cricket shot types that a batter may choose to use dependent on the bowl they receive:

Straight drive – A straight drive is a deliberate shot that aims to hit the ball along the ground to prevent being caught out. Stand with feet shoulder width apart and parallel to the batting crease.



On drive – On drive is played towards mid-on and long-on fielding position. Generally, this shot is offered for a full-length delivery bowled at the leg stump. It is played similar to the straight drive, except the target direction is towards the mid-on fielding position.



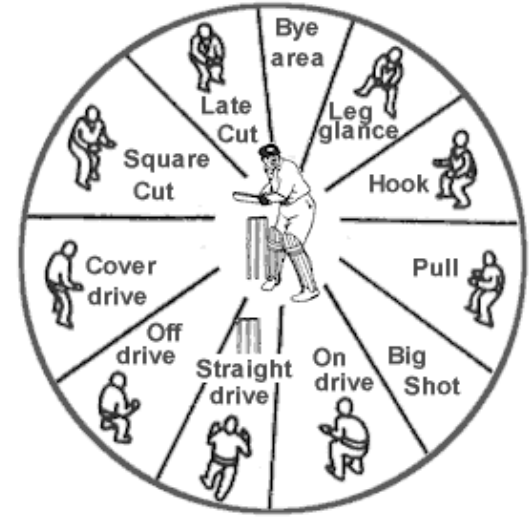
Hook – The hook is a type of strike in cricket, performed when the ball arrives at the batsman at chest level and above. Most often – between the shoulder and the head. Usually, the hook is played against the shorter ball.



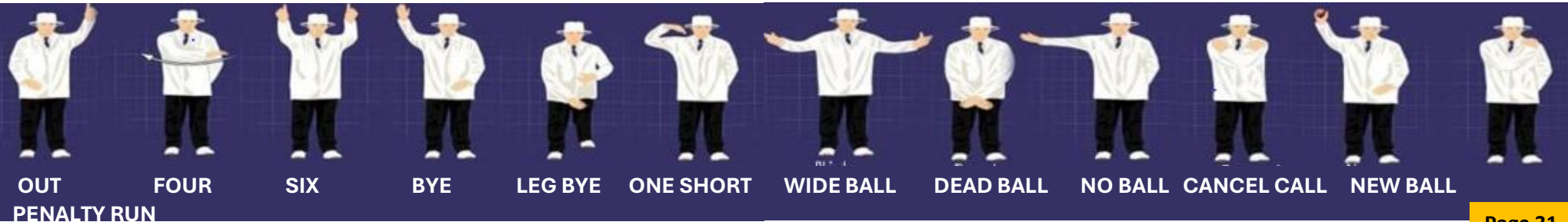
Sweep - Sweep shot is a cricket term for a way of deflecting a shot with a long, low bounce.



Full range of different shot types that a batter may choose to use:



Umpire Hand Signals



OUT FOUR SIX BYE LEG BYE ONE SHORT WIDE BALL DEAD BALL NO BALL CANCEL CALL NEW BALL

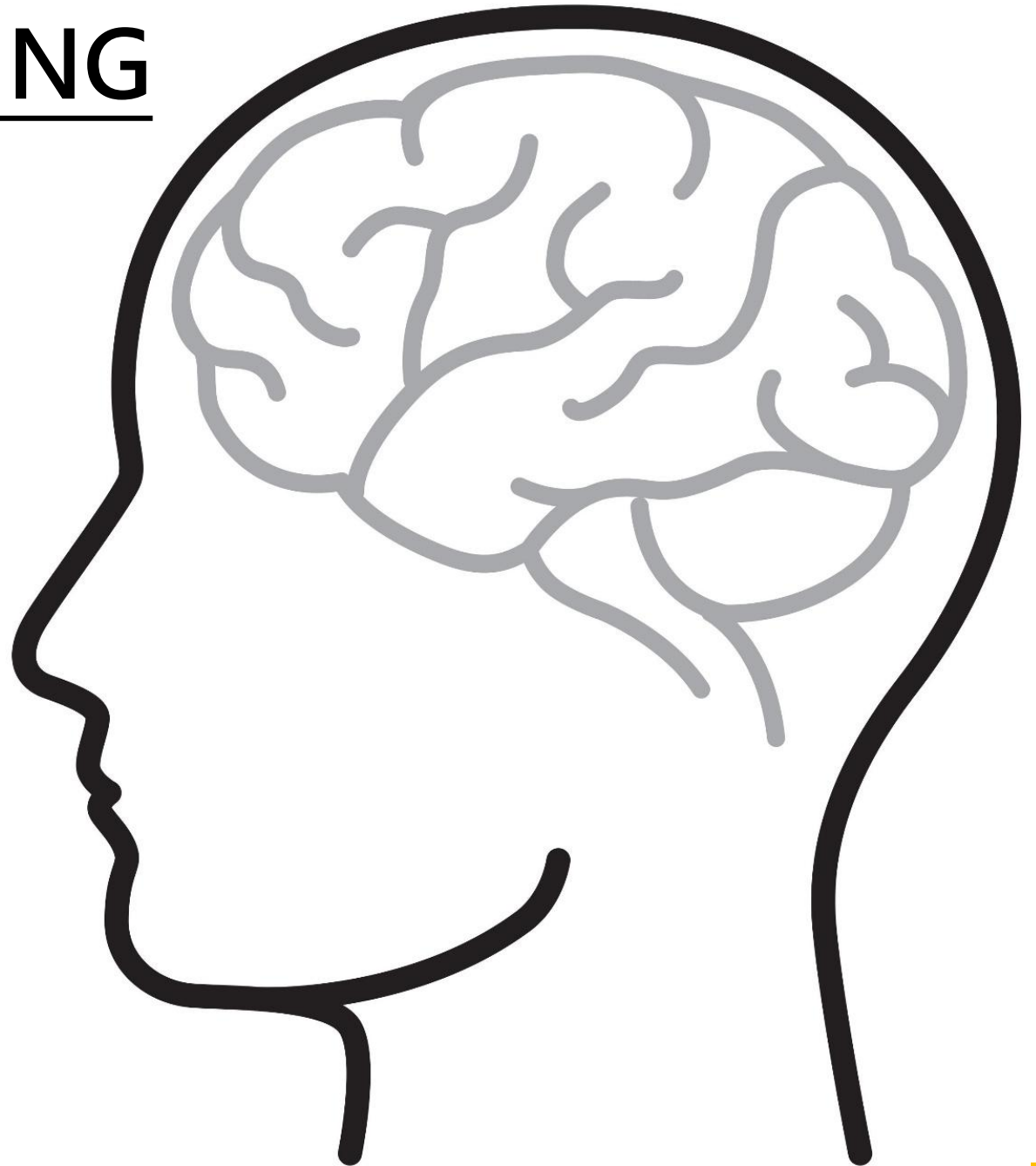
PENALTY RUN

BRAIN DUMPING

Within the 'brain', add all of the knowledge you can remember from **PE** without looking back at the sheets.

Once you have added everything you can remember, look at these pages again and using a different colour pen, add in the knowledge that you missed out. This is the knowledge you should now continue to revise.

Continue this process until you can remember everything on the page.

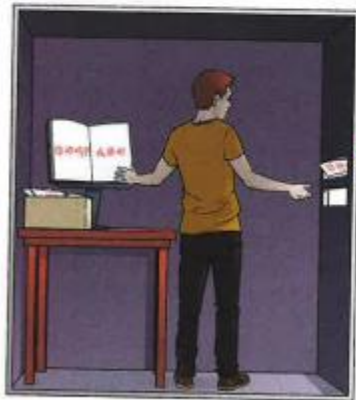


Knowledge organiser

Key vocabulary

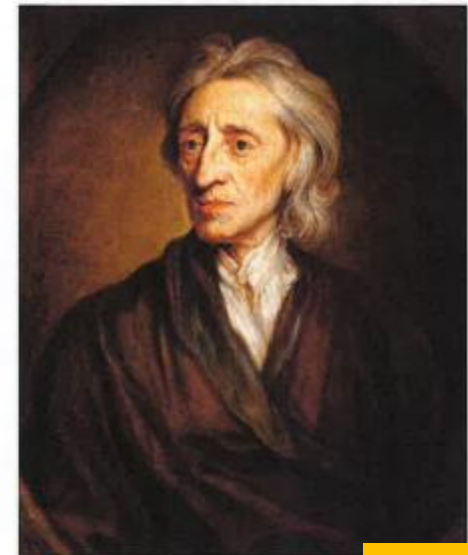
- absolutism** The view that certain actions are inherently good or bad
- altruism** Selfless actions done without thought or expectation of a reward
- artificial intelligence (AI)** Computer systems that are able to carry out tasks normally done by humans
- artificial superintelligence** The name given to a possible future invention that is more intelligent than humans and can outperform us in everything
- the banality of evil** A phrase used by Hannah Arendt to describe how evil can result from ordinary, thoughtless behaviour
- dualism** The belief that humans have both a body and another separate, immaterial part, such as a mind or soul
- ethics** The philosophical study of right and wrong
- hedonic calculus** Jeremy Bentham's way of calculating which actions are right and wrong
- Holocaust** The killing of six million Jews by the Nazis in Germany between 1933 and 1945

- materialism** The belief that the only thing that exists is physical matter and the movement of this matter
- morality** Ideas or principles about what is right and wrong
- relativism** The view that whether an action is good or bad depends on the situation
- speciesism** A term popularised by Peter Singer to describe prejudice or discrimination towards animals
- thought experiment** A mental test in which people think through consequences of different actions, often in scenarios that can't be tested out in real life
- Turing test** A test created by Alan Turing to try and show if a computer can think
- utilitarianism** The theory that the best action in any situation is the one which creates the greatest amount of good for the greatest number
- the will to power** A term used by Nietzsche to describe a natural human desire for strength and power



Key people

- Hannah Arendt** 20th-century German philosopher who attended the trial of Adolf Eichmann in 1961 and wrote about 'the banality of evil'
- Jeremy Bentham** 18th-century English philosopher, regarded as the founder of utilitarianism, who argued that pleasure and pain are the same as good and bad
- Philippa Foot** 20th-century English philosopher who designed the runaway train thought experiment in 1967
- John Locke** 17th-century English philosopher who argued that when we are born, our mind is like a blank slate (*tabula rasa*)
- John Stuart Mill** 19th-century English philosopher who developed utilitarianism by arguing that the quality of pleasure or pain produced by an action is more important than the quantity
- Friedrich Nietzsche** 19th-century German atheist who expressed his belief that humans no longer needed the idea of God by saying 'God is dead and we have killed him'
- Robert Nozick** 20th-century American philosopher who used the example of an imaginary 'experience machine' to show that humans value more than simply pleasure
- John Searle** 20th-century American philosopher who used the example of the Chinese thought experiment to argue against Alan Turing's claim that computers can think
- Peter Singer** 20th-century Australian philosopher and utilitarian who popularised the word 'speciesism', which describes prejudice and discrimination against animals
- Alan Turing** 20th-century English computer scientist and philosopher who designed the Turing test to show whether a computer can think



KEY WORD REVISION

Copy some of the definitions of the **RE** key vocabulary into the boxes below from your knowledge sheet and then see if you can add in the keywords without looking back at your work. Alternatively, you can do it the other way round and see if you can add in the correct definitions without looking.

Keyword:	Definition:

Fancy some additional Class Charts points? Impress your teachers with any of these BHAmazing pieces of vocabulary, and they will award you extra CC points.
 Challenge: Can you use them in any sentences and show a member of the Senior Leadership Team?

Word List 1	Word List 2	Word List 3	Word List 4	Word List 5	Word List 6	Word List 7
Myriad (adjective) – many	Caustic (adjective) – mean / harsh	Tension (noun) – feeling of anxiety or nervousness	Omniscient (adjective) – all-knowing	Sentimental (adjective) – emotional	Oppressed (adjective) – subjected to cruel mistreatment	Metamorphosis (noun) – a change / transformation
Assert (verb) – state a fact confidently or forcefully	Elucidate (verb) – to make clear	Oblivious (adjective) – unaware	Gullible (adjective) – believes things easily	Bawdy (adjective) – rude or vulgar	Subservient (adjective) – obedient / submissive	Abhorrent (adjective) – repulsive
Egregious (adjective) – outstandingly bad	Esoteric (adjective) – likely to only be understood by a small number of people / obscure	Naïve (adjective) – Inexperienced / unaware	Supercilious (adjective) – arrogant	Hypermasculine (adjective) – overly masculine	Exploit (verb) – to use someone for your own good	Abhor (verb) – to hate
Erroneous (adjective) – wrong	Tenuous (adjective) – weak or fragile	Pretentious (adjective) – arrogant	Tyrannical (adjective) – a cruel dictator	Atavistic (adjective) – has characteristics of an earlier generation	Epiphany (noun) – a sudden realization	Abhor (verb) – to hate
Engender (verb) – to cause	Perfunctory (adjective) – carried out with minimal effort	Pompous (adjective) – arrogant	Brazen (adjective) – bold, shameless	Troglodytic (adjective) – like a caveman	Façade (noun) – a front (to ‘wear a façade’ means you wear a metaphorical mask, covering your true emotions or character)	Fate (adjective) – destiny
Employ (verb) – to make use of	Moral (noun) – a lesson	Privileged (adjective) – having an advantage over other, usually wealth	Elusive (adjective) – mysterious	Apathetic (adjective) – indifferent / lazy	Segregated (adjective) – separated	Integral (adjective) – important
Salient (adjective) – most noticeable and important	Autonomy (noun) – independence	Compassionate (adjective) – sympathetic	Chauvinistic (adjective) – has an attitude of superiority to opposite sex	Misogynistic (adjective) – hateful towards women	Microcosm (noun) – a smaller community which represents a larger one	Demise (noun) – a person’s downfall or death
Advantageous (adjective) – providing an advantage / beneficial	Assertive (adjective) – confidence	Vindictive (adjective) – spiteful, cruel	Materialistic (adjective) – cares for objects and commodities	Choleric (adjective) – quick-tempered, angry	Ridicule (verb) – to make fun of	Deride (verb) – to mock
Galvanize (verb) – to shock or excite someone into action	Conceited (adjective) – excessively proud / vain	Duplicious (adjective) – having two sides	Prophetic (adjective) – able to accurately predict	Secular (adjective) – not religious	Contempt (noun) – hate	Hysterical (adjective) – uncontrolled emotion
Substantiate (verb) – to provide evidence	Superior (adjective) – better than	Narcissistic (adjective) – self-obsessed	Impulsive (adjective) – rash / careless	Aloof (adjective) – stand-offish	Degenerate (adjective) – disgusting	
					Depraved (adjective) – immoral / evil	
					Feral (adjective) – wild	

My BHAmazing vocabulary, written in sentences:

1.

2.

3.

4.

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6.

7.