YEAR 9

BHA's Knowledge Quest

Summer 2

(Jun- Jul)

2025-2026

Bristnall Hall Academy

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.

Timetable

Use this page to copy out your lessons and room numbers

	W1 Mon	W1 Tues	W1 Wed	W1 Thurs	W1 Fri	W2 Mon	W2 Tues	W2 Wed	W2 Thurs	W2 Fri
1										
2										
3										
4										
5										
6										

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 Wednesday Friday 2.35pm – 3.35pm	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 Gym) NK All years Girl's Netball (MUGA) JS/NW- New 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	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 *Hooked on Bristnall* 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 *The hook and pen society* 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

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

Dates to remember this half term:

June	July

Attendance record

Week	Attendance %
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	

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		
Week 7		
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				
Week 7				
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	
Week 7	
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?

_____

_____

_____

_____

_____

Homework Log

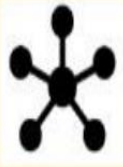
Use this page to record any homework this half term

Subject	Date Due:	Additional Notes:

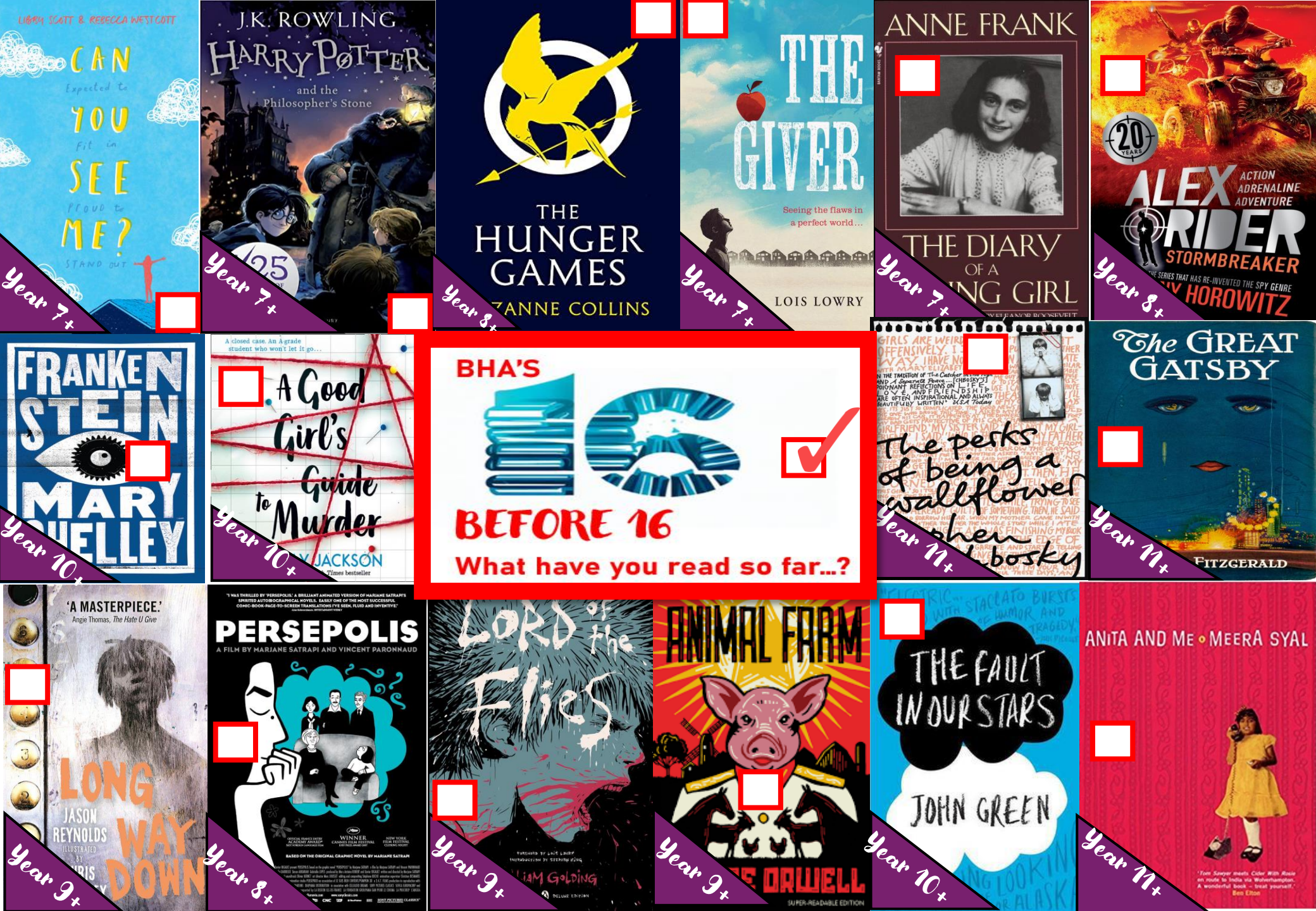
Homework Log

Use this page to record any homework this half term

Subject	Date Due:	Additional Notes:

	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
2. Belgium
3. Luxembourg
4. Switzerland
5. Slovenia
6. Croatia
7. Bosnia and Herzegovina
8. Czechia
9. Slovakia
10. Austria
11. Hungary
12. Serbia
13. Moldova
14. North Macedonia
15. Albania
16. Cyprus
17. Lebanon
18. Guinea-Bissau
19. Guinea
20. Ghana
21. Togo
22. Benin
23. Cameroon
24. Equatorial Guinea
25. Rwanda
26. Cambodia
27. Panama
28. Malawi
29. Liechtenstein
30. Montenegro
31. Kosovo
32. Palestinian Territories
33. St. Vincent & the Grenadines
0 2,000 4,000 Miles
0 2,000 4,000 6,000 8,000 Kilometers
Copyright © 2020 www.mapsofworld.com

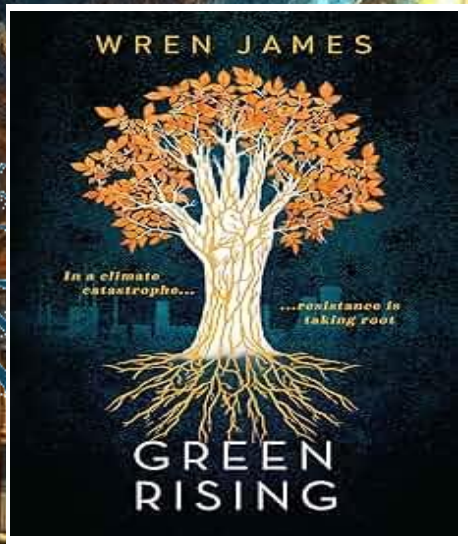

LIBBY SCOTT & REBECCA WESTCOTT
CAN YOU SEE ME?
Expected to Fit in
Proud to
STAND OUT
Year 7+
J.K. ROWLING
HARRY POTTER
and the Philosopher's Stone
Year 7+
THE HUNGER GAMES
Year 8+
THE GIVER
Seeing the flaws in a perfect world...
LOIS LOWRY
Year 7+
ANNE FRANK
THE DIARY OF A
Year 7+
20 YEARS
ALEX RIDER
ACTION ADRENALINE ADVENTURE
STORMBREAKER
Year 8+
FRANKEN STEIN
MARY SHELLEY
Year 10+
A closed case. An A grade student who won't let it go...
A Good Girl's Guide to Murder
Year 10+
BHA'S
BEFORE 16
What have you read so far...?
The perks of being a wallflower
Year 11+
The GREAT GATSBY
FITZGERALD
Year 11+
'A MASTERPIECE.'
Angie Thomas, The Hate U Give
LONG WAY DOWN
JASON REYNOLDS
Year 9+
PERSEPOLIS
A FILM BY MARJANE SATRAPI AND VINCENT PARONNAUD
Year 8+
LORD of the Flies
Year 9+
ANIMAL FARM
Year 9+
THE FAULT IN OUR STARS
JOHN GREEN
Year 10+
ANITA AND ME • MEERA SYAL
Year 11+

Contents page

YEAR 9

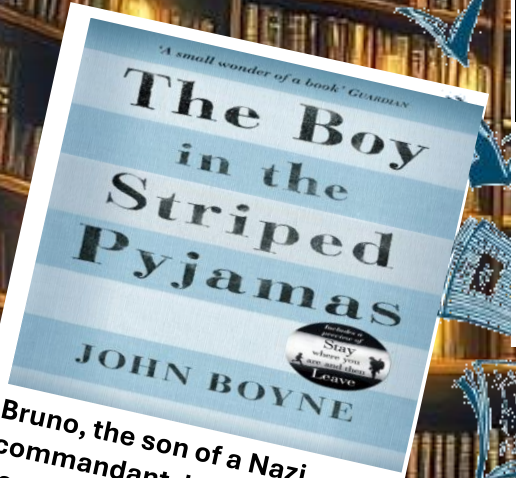
Recommended Reading

The War of the Worlds follows an unnamed narrator as he witnesses a Martian invasion of England, where advanced alien machines devastate towns and force humanity into a desperate fight for survival.

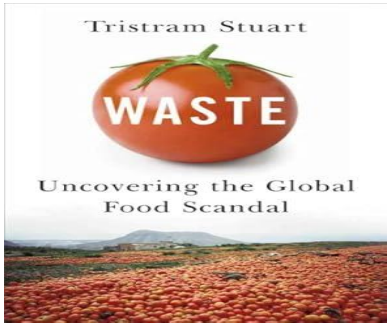


Three teenagers develop plant-growing powers and must work together to resist corrupt organisations during a global ecological crisis.

Three ambitious teen dancers: Gigi, Bette, and June, whose fierce rivalry at an elite Manhattan ballet academy exposes the dark, high-pressure world behind the pursuit of perfection.



Bruno, the son of a Nazi commandant, befriends a Jewish boy named Shmuel across a fence at Auschwitz. An innocent friendship that leads to an unexpected ending.



The book investigates the global food system to reveal the scale, causes, and consequences of food waste, drawing on research and first-hand reporting. It shows that farmers, manufacturers, supermarkets,and consumers in wealthier nations routinely throw away 30–50% of their food, even as nearly a billion people face hunger.

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

WAR OF THE WORLDS

War of the Worlds – Vocabulary of the Scheme

- **Convention** - a way in which something is usually done.
- **Disparity** - a difference or inequality.
- **Hubris** - excessive self-confidence .
- **Imperialism** - the process of using force to control other countries and gain power.
- **Escalate** -to increase in size or intensity.
- **Nihilism** - the belief that everything is meaningless.
- **Camaraderie** - a feeling of trust among a group of people.
- **Pious** - devoutly religious.
- **Allegory** - a story with a hidden meaning.
- **Apoplexy** - extreme anger.
- **Desolation** - complete emptiness or destruction.
- **Sanguine**- feeling positive or optimistic.

Improve the quality of discussion

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…

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…

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…
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…

Plot summary:

"The War of the Worlds" is a science fiction novel by H.G. Wells. It tells the story of a Martian invasion on Earth, as experienced by an unnamed male narrator and his brother.

The story begins in the early twentieth century in Woking, outside of London. The Martians, observing Earth due to the depletion of resources on Mars, launch an attack. Astronomers witness the venting of gases on Mars, not realizing it's the beginning of the invasion.

A falling star lands near the Narrator's home, which turns out to be a long metal cylinder from Mars. Strange Martians exit from the cylinder, and while the scientists try to communicate with them, a Heat-Ray device rises from the pit. The Martians use this Heat-Ray to incinerate anything in its path, causing chaos and destruction.

The Narrator escapes and decides to flee to Leatherhead with his wife. After leaving his wife with family, he returns to Woking, only to witness more chaos and destruction. He eventually hides in a building with a curate who behaves in a deranged manner.

The novel also describes the Narrator's brother's escape from London, which is part of a dangerous mass exodus. The Martians are worm-like creatures who intend to use Earth as a feeding ground, and the Earthlings are powerless to stop them.

The novel is a commentary on British imperialism and is noted for its suspenseful plot and unique narrative structure. It has been adapted into various media, including radio, film, and television.

Language	Structure
• Extended metaphor – a metaphor that reoccurs in different ways. • Allegory – a hidden message or moral in a story. • Symbolism – where an idea in a story represents something larger. • Personification – making something sound alive or like a human.	• Rising Action – How does tension increase over time? • Transformation – how does a character develop over time?

Year 9 Mathematics: Rates

Maths

What do I need to be able to do?

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

- Solve speed, distance, time questions
- Use distance time graphs
- Solve density, mass, volume problems
- Solve flow problems
- Use flow graphs
- Interpret rates of change and their units

Keywords

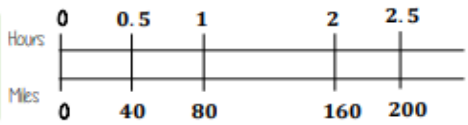
Convert: change
Mass: a measure of how much matter is in an object. Commonly measured by weight
Origin: the coordinate (0, 0)
Volume: the amount of 3D space a shape takes up
Substitute: putting numbers where letters are – replacing numbers into a formula

Speed, Distance, Time

"per" for every
e.g. 80 miles per hour (mph)
Travel 80 miles every hour

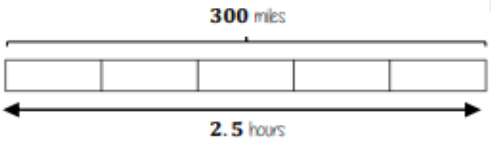
$$\text{speed} = \frac{\text{distance}}{\text{time}}$$

You can use a double number line to help you calculate distance



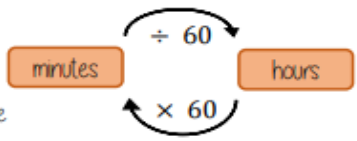
e.g. A boat travels at a constant speed for 2.5 hours
It travels 300 miles

Bar models can help to calculate mph



Each part is half an hour
Each part is 60 miles

Speed, Distance, Time



Before calculations – make sure you are working in the same units as the speed

Learn or learn how to rearrange the formular for speed, distance and time

$$\text{time} = \frac{\text{distance}}{\text{speed}}$$

$$\text{distance} = \text{speed} \times \text{time}$$

Substitute in the variables given

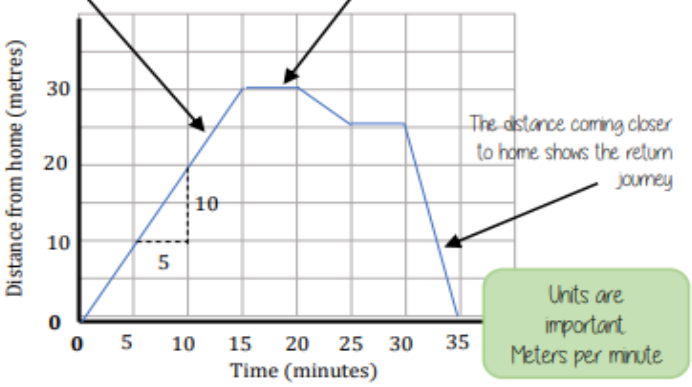
Distance – Time graphs

The steeper a gradient, the faster the speed

Gradient = speed

$\frac{10}{5} = 2$ metres per min

Horizontal lines represent staying still



The distance coming closer to home shows the return journey

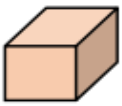
Units are important
Meters per minute

Density, Mass, Volume

$$\text{density} = \frac{\text{mass}}{\text{volume}}$$

$$\text{volume} = \frac{\text{mass}}{\text{density}}$$

$$\text{mass} = \text{volume} \times \text{density}$$



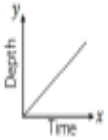
volume of prism = Area of cross section × Depth

R

Flow problems & graphs

This will fill at a constant rate, then as the space decreases it will speed up and the neck of the bottle fill at a faster constant speed

The cylinder will fill at a constant speed



Units are important
Ensure any volume calculations are the same unit as the rate of flow

Rates of change & units

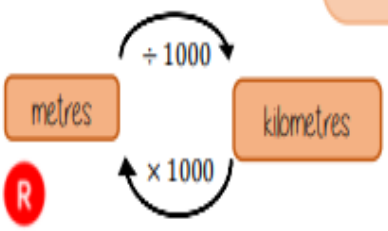
Common rates of change relationships

Revisit your conversions between units of length and capacity

Speed: miles **per** hour

Exchange rates: euros **per** pounds

Density: mass **per** volume



R

Year 9 Mathematics: Probability

Maths

What do I need to be able to do?

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

- Find single event probability
- Find relative frequency
- Find expected outcomes
- Find independent events
- Use diagrams to work out probabilities

Keywords

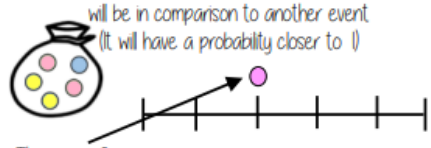
Probability: the chance that something will happen
Relative Frequency: how often something happens divided by the outcomes
Independent: an event that is not effected by any other events
Chance: the likelihood of a particular outcome
Event: the outcome of a probability – a set of possible outcomes
Biased: a built in error that makes all values wrong by a certain amount

The probability scale

R

Impossible 0 or 0% | Even chance 0.5, $\frac{1}{2}$ or 50% | Certain 1 or 100%

The more likely an event the further up the probability it will be in comparison to another event (It will have a probability closer to 1)



There are 2 pink and 2 yellow balls, so they have the same probability

There are 5 possible outcomes So 5 intervals on this scale, each interval value is $\frac{1}{5}$

Single event probability

R

Probability is always a value between 0 and 1

The probability of getting a blue ball is $\frac{1}{5}$
∴The probability of **NOT** getting a blue ball is $\frac{4}{5}$

The sum of the probabilities is **1**

The table shows the probability of selecting a type of chocolate

Dark	Milk	White
0.15	0.35	

P(White chocolate) = 1 – 0.15 – 0.35
= 0.5

Relative Frequency

$$\frac{\text{Frequency of event}}{\text{Total number of outcomes}}$$

Remember to calculate or identify the overall number of outcomes!

Colour	Frequency	Relative Frequency
Green	6	0.3
Yellow	12	0.6
Blue	2	0.1
	20	

Relative frequency can be used to find expected outcomes

e.g. Use the relative probability to find the expected outcome for green if there are 100 selections.

Relative frequency x Number of times
$0.3 \times 100 = 30$

Expected outcomes

Expected outcomes are estimations. It is a long term average rather than a prediction

Dark	Milk	White
0.15	0.35	0.5

The sum of the probabilities is **1**

An experiment is carried out **400** times
Show that dark chocolate is expected to be selected **60** times

$0.15 \times 400 = 60$

Independent events

The rolling of one dice has no impact on the rolling of the other. The individual probabilities should be calculated separately

Probability of event 1 × Probability of event 2

$P(5) = \frac{1}{6}$ $P(R) = \frac{1}{4}$

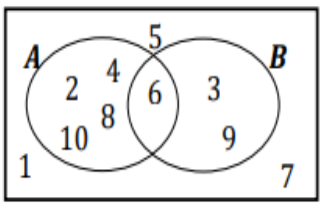
Find the probability of getting a 5 and a red

$P(5 \text{ and } R) = \frac{1}{6} \times \frac{1}{4} = \frac{1}{24}$

Using diagrams

Recap Venn diagrams, Sample space diagrams and Two-way tables

R



	Car	Bus	Walk	Total
Boys	15	24	14	53
Girls	6	20	21	47
Total	21	44	35	100

The possible outcomes from rolling a dice

The possible outcomes from tossing a coin

	1	2	3	4	5	6
H	1,H	2,H	3,H	4,H	5,H	6,H
T	1,T	2,T	3,T	4,T	5,T	6,T

Year 9 Mathematics: Algebraic Representation

Maths

What do I need to be able to do?

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

- Draw quadratic graphs
- Interpret quadratic graphs
- Interpret other graphs including reciprocals
- Represent inequalities

Keywords

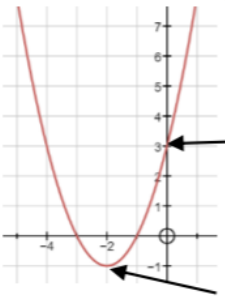
Quadratic: a curved graph with the highest power being 2. Square power.
Inequality: makes a non equal comparison between two numbers
Reciprocal: a reciprocal is 1 divided by the number
Cubic: a curved graph with the highest power being 3. Cubic power.
Origin: the coordinate (0, 0)
Parabola: a 'u' shaped curve that has mirror symmetry

Quadratic Graphs

$y = x^2 + 4x + 3$

If x^2 is the highest power in your equation then you have a quadratic graph

It will have a parabola shape



Intersection with the y axis

Substitute the x values into the equation of your line to find the y coordinates

x	-4	-3	-2	-1	0	1
y	3	0	-1	0	3	8

Coordinate pairs for plotting $(-3, 0)$

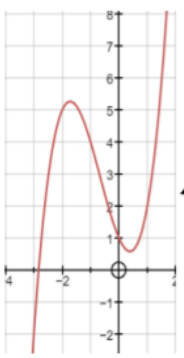
Plot all of the coordinate pairs and join the points with a curve (freehand)

Quadratic graphs are always symmetrical with the turning point in the middle

Interpret other graphs

Cubic Graphs

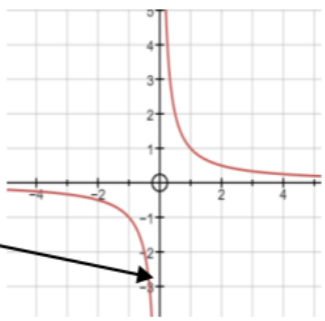
$y = x^3 + 2x^2 - 2x + 1$



If x^3 is the highest power in your equation then you have a cubic graph

Reciprocal Graphs

$y = \frac{1}{x}$

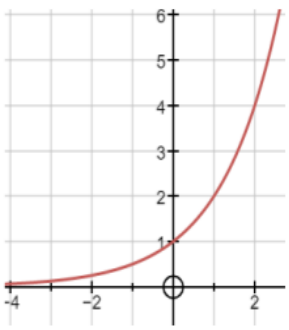


Reciprocal graphs never touch the y axis
This is because x cannot be 0
This is an asymptote

Exponential Graphs

$y = 2^x$

Exponential graphs have a power of x

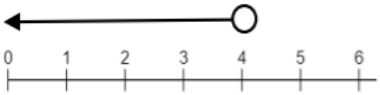


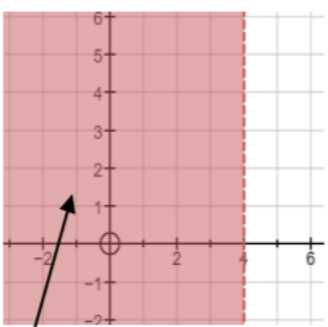
Represent Inequalities

Multiple methods of representing inequalities

$x < 4$

All values are less than 4



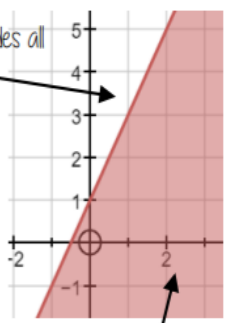


The shaded area indicates all possible values of x

The dotted line shows that the inequality does not include these points

The solid line shows that the inequality includes all the points on this line

$y \geq 2x + 1$



The shaded area indicates all possible solutions to this inequality

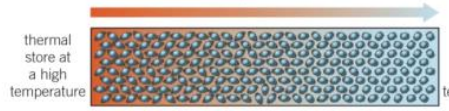
Energy and temperature

- The **temperature** of a substance is a measure of how hot or cold it is
- Temperature is measured with a **thermometer**, it has the units of degrees Celsius (°C)

- The **thermal energy** of a substance depends on the individual energy of all of the particles, it is measures in Joules (J)
- As all particles are taken into account, a bath of water at 30 °C would have more thermal energy than a cup of tea at 90 °C as there are many more particles
- The faster the particles are moving, the more thermal energy they will have
- When particles are heated they begin to move more quickly
- The energy needed to increase the temperature of a substance depends on:
  - the mass of the substance
  - what the substance is made of
  - how much you want to increase the temperature by

Conduction

- **Conduction** is the transfer of thermal energy by the vibration of particles, it cannot happen without particles
- This means that every time particles collide they transfer thermal energy
- Conduction happens effectively in solids as their particles are close together and can collide often as they vibrate around a fixed point
- Metals are also good **thermal conductors** as they contain electrons which are free to move
- In conduction the thermal energy will be transferred from an area which has a high **thermal energy store** (high temperature) to an area where there is a low thermal energy store (low temperature)
- Gases and liquids are poor conductors as their particles are spread out and so do not collide often, we call these **insulators**



Convection

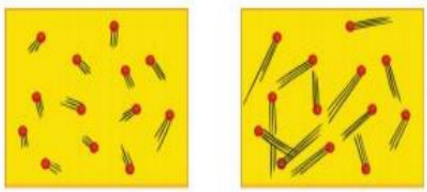
- **Convection** is the transfer of thermal energy in a liquid or a gas, it cannot happen without particles
- As the particles near the heat source are heated they spread out and become less dense, this means that they will rise
- More dense particles will take their place at the bottom nearest the heat source creating a constant flow of particles
- This is known as a **convection current**
- Convection cannot happen in a solid as the particles cannot flow, they can only move around a fixed point

Radiation

- **Radiation** is a method of transferring energy without the need for particles
- An example of radiation is thermal energy being transferred from the Sun to us through space (where there are no particles)
- This type of radiation is known as **infrared radiation**, it is a type of wave just like light
- The hotter an object is the more infrared radiation it will emit (give out)
- The amount of radiation emitted and absorbed depends on the surface of the object:
  - Darker matte surfaces absorb and emit more infrared radiation
  - Shiny and smooth surfaces absorb and emit less infrared radiation, instead reflecting this
  - The amount of infrared radiation being emitted can be viewed on a **thermal imaging camera**

Internal Energy

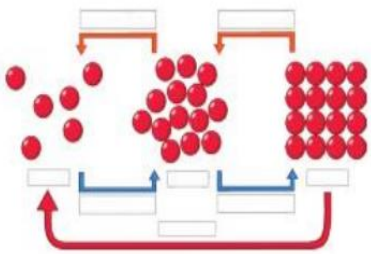
Particles within a system have kinetic energy when they vibrate or move around. The particles also have a potential energy store. The total internal energy of a system is the kinetic and potential energy stores.



Low Temperature | High Temperature

If the system is heated, the particles will gain more kinetic energy, so increasing the internal energy.

Changing State

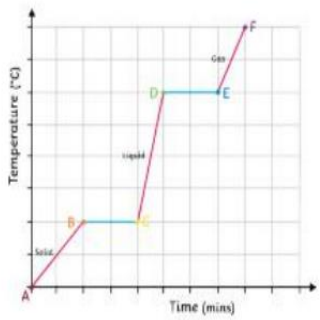


If a system gains more energy, it can lead to a change in temperature or change in state. If the system is heated enough, then there will be enough energy to break bonds.

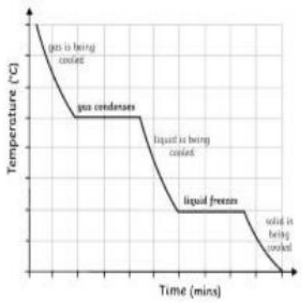
When something changes state, there is no chemical change, only physical. No new substance is formed. The substance will change back to its original form. The number of particles does not change and mass is conserved.

Specific Latent Heat

Energy is being put in during melting and boiling. This increases the amount of internal energy. The energy is being used to break the bonds, so the temperature does not increase. This is shown by the parts of the graph that are flat.



When a substance is condensing or freezing, the energy put in is used to form the bonds. This releases energy. The internal energy decreases, but the temperature does not go down.



The energy needed to change the state of a substance is called the latent heat.

Specific latent heat is the amount of energy needed to change 1kg of a substance from one state to another without changing the temperature. Specific latent heat will be different for different materials.

- solid → liquid - specific latent heat of **fusion**
- liquid → gas - specific latent heat of **vaporisation**

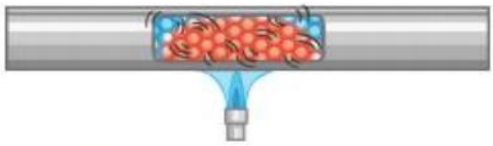
Specific Latent Heat Equation

The amount of energy needed/released when a substance of mass changes state.

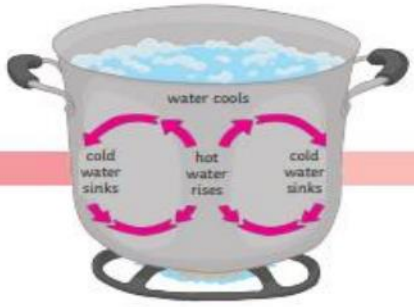
energy (E) = mass (m) × specific latent heat (L)

$E = mL$

Conduction – when a solid is heated, the particles vibrate and collide more, and the energy is transferred.

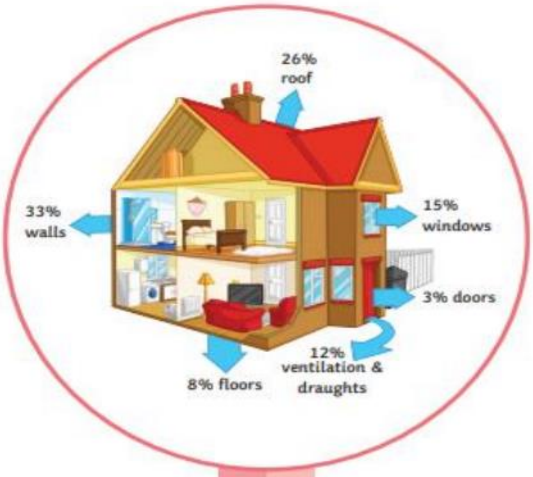


Convection – when a liquid or a gas is heated, the particles move faster. This means the liquid or gas becomes less dense. The denser region will rise above the cooler region. This is a convection current.



Insulation – reduces the amount of heat lost. In your home, you can prevent heat loss in a number of ways:

- thick walls;
- thermal insulation, such as:
- loft insulation (reducing convection);
- cavity walls (reduces conduction and convection);
- double glazing (reduces conduction).



Transferring Energy by Heating

Heating a material transfers the energy to its thermal energy store - the temperature increases.

E.g. a kettle: energy is transferred to the thermal energy store of the kettle. Energy is then transferred by heating to the waters thermal energy store. The temperature of the water will then increase.

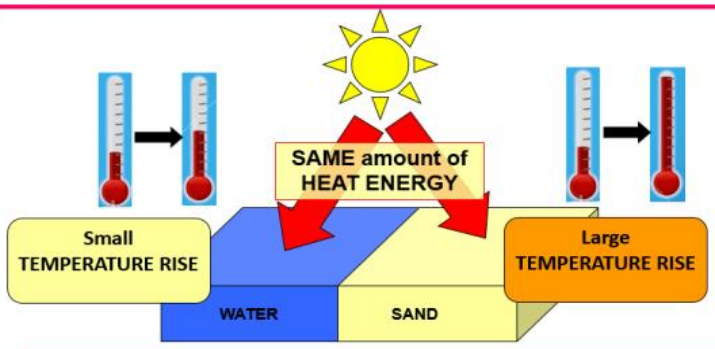
Some materials need more energy to increase their temperature than others.

change in thermal energy = mass × specific heat capacity × temperature change

$$\Delta E = m \times c \times \Delta\theta$$

(J) (kg) (J/kg°C) (°C)

Specific heat capacity is the amount of energy needed to raise the temperature of 1kg of a material by 1°C.



Putting the SAME AMOUNT OF HEAT into sand gives a BIGGER TEMPERATURE RISE than in water.

This is because water has a larger **specific heat capacity** than sand.

Required Practical

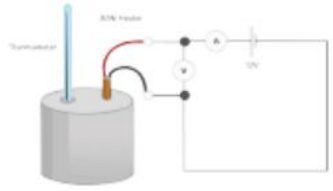
Investigating Specific Heat Capacity

independent variable – material

dependent variable – specific heat capacity

control variables – insulating layer, initial temperature, time taken

$\Delta E = m \times c \times \Delta\theta$



Method:

1. Using the balance, measure and record the mass of the copper block in kg.
2. Wrap the insulation around the block.
3. Put the heater into the large hole in the block and the block onto the heatproof mat.
4. Connect the power pack and ammeter in series and the voltmeter across the power pack.
5. Using the pipette, put a drop of water into the small hole.
6. Put the thermometer into the small hole and measure the temperature.
7. Switch the power pack to 12V and turn it on.
8. Read and record the voltmeter and ammeter readings – during the experiment, they shouldn't change.
9. Turn on the stop clock and record the temperature every minute for 10 minutes.
10. Record the results in the table.
11. Calculate work done and plot a line graph of work done against temperature.

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

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

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 4: Salva la Planeta 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*

Big Questions

How do I describe my local area?

How do I discuss recycling at home?

How do I talk about local environmental issues?

How do I discuss global issues which concern me?

How do I discuss solutions to environmental concerns.

Mi ciudad –my town/city	
antes	before
era	it used to be
aburrida/peligrosa	boring/dangerous
estaba sucia	it used to be dirty
había mucha basura	there used to be lots of rubbish
no había nada para los jovenes	there used to be nothing for young people.
ahora es	now it is
Lo mejor de mi cuidad es	the best thing about my town
lo peor de mi ciudad es	the worst thing about my town

el medioambiente-environment	
en mi ciudad	in m town
hay	there is/are
contaminación	pollution
basura	litter
fábricas	factories
el trafico causa mucho ruido	traffic causes lots of noise
no hay espacios verdes	there are no parks

El transporte - transport	
viajo	I travel
viajé	I travelled
voy a viajar	I am going to travel
a pie	on foot
en coche	by car
en autobús	by bus
en metro	by subway
es más...que	it is more...than
rápido/a	quick
barato/a	cheap
verde	green
practico/a	practical
seguro	safe
la única opción	the only option

el reciclaje-recycling	
reciclo	I recycle
papel/vidrio	paper/glass
botellas de plástico	plastic bottles
cartón	cardboard

¿qué hacemos? -projects	
vamos a	we are going to
recaudar fondos	raise money
vender pasteles	sell cakes

Tricky pronunciation:

organizar	z pronounced (th)

En la ciudad – in the town	
hay	There is/are
una pista de heilo	an ice rink
un estadio	a stadium
una discoteca	a disco
un puerto	a port
un bosque	a forest
el ayuntamiento	the town hall
la comisaría	the police station
la estación de trenes/autobues	the bus/train station
una iglesia	the church
una mezquita	a mosque

un mundo mejor—a better world	
para ser más verde	to be greener
apagamos la luz	we turn off the lights
no malgastamos	we don't waste
agua	water
plantamos árboles	we plant trees
reducimos el consumo de electicidad	we reduce electric consumption

False friends

fabrica	factory
única	only

opinions-opinions	
es	it is
irritante	irritating
desagradable	unpleasant
limpio	clean
bonito	pretty
ruidoso	noisy

el tiempo—the weather	
hace calor	it is hot
hace frío	it it cold
hace viento	it is windy
hace sol	it is sunny
hace fresco	it is chilly
hay niebla	it is foggy
está nublado	it is cloudy
está despejado	it is clear
llueve	it is raining
nieva	it is snowing

Useful Grammar

The imperfect tense is used to describe a repeated action in the past (I used to play football every day—but not anymore) or describe a scene.

To form the imperfect tense:
Step 1: Take the infinitive
Step 2: Knock off the endings
Step 3: add the endings in the table

Common irregulars:
ser (to be) - era, eras, era, éramos…
ir (to go) - íba, ibas, iba, íbamos...

imperfect tense regular endings			
	er verbs	ir verbs	er verbs
I	aba	ía	ía
You	abas	ías	ías
He/she	aba	ía	ía
We	ábamos	íamos	íamos
You (pl)	abais	íais	íais
they	aban	ían	ían

Key verbs in 3 time frames			
infinitive	past	present	future
ser (to be)	fui	soy	voy a ser
vivir (to live)	viví	vivo	voy a vivir
tener (to have)	tuve	tengo	voy a tener
poder (to be able)	pude	puedo	voy a poder
haber** it form only	había	hay	habrá
reciclar (to recycle)	reciclé	reciclo	voy a reciclar
ahorrar (to save)	ahorré	ahorro	voy a ahorrar

Key Questions	
¿dónde vives?	Where do you live?
¿como era tu barrio?	What was your region like?
¿qué vas a hacer para proteger la planeta?	What are you going to do to protect the planet?

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

Modal verb—se debería
Modal verbs are verbs of obligation.
Se debería means you/we should. It is followed by the infinitive

Negatives
- To make a verb negative, just put no (I don't) or nunca (I never)
- no voy – I don't go
- nunca voy – I never go .

High Frequency words	
mi/mis/su/sus	my/his, her
para	in order to, for
para mí	for me
por ejemplo	for example
por eso	so, therefore
ahora/ya	now/already
en el futuro	in the future
el año pasado	last year

GRAMMAR CHEAT SHEET

REGULAR VERBS

Verb	Present	Preterite	Near future
1. Ayudar *To help*	Ayudo *I help*	Ayudé *I helped*	Voy a ayudar *I'm going to help*
2. Comprar *To buy*	Compro *I buy*	Compré *I bought*	Voy a comprar *I'm going to buy*
3. Descansar *To rest*	Descanso *I relax*	Descansé *I relaxed*	Voy a descansar *I'm going to relax*
4. Descargar *To download*	Descargo *I download*	Descargué *I downloaded*	Voy a descargar *I'm going to download*
5. Disfrutar *To enjoy*	Disfruto *I enjoy*	Disfruté *I enjoyed*	Voy a disfrutar *I'm going to enjoy*
6. Escuchar *To listen*	Escucho *I listen*	Escuché *I listened*	Voy a escuchar *I'm going to listen*
7. Estudiar *To study*	Estudio *I study*	Estudié *I studied*	Voy a estudiar *I'm going to study*
8. Hablar *To talk*	Hablo *I talk*	Hablé *I talked*	Voy a hablar *I'm going to talk*
9. Llevar *To wear*	Llevo *I wear*	Llevé *I wore*	Voy a llevar *I'm going to wear*
10. Nadar *To swim*	Nado *I swim*	Nadé *I swam*	Voy a nadar *I'm going to swim*
11. Trabajar *To work*	Trabajo *I work*	Trabajé *I worked*	Voy a trabajar *I'm going to work*
12. Viajar *To travel*	Viajo *I travel*	Viajé *I travelled*	Voy a viajar *I'm going to travel*
13. Visitar *To visit*	Visito *I visit*	Visité *I visited*	Voy a visitar *I'm going to visit*
14. Aprender *To learn*	Aprendo *I learn*	Aprendí *I learnt*	Voy a aprender *I'm going to learn*
15. Beber *To drink*	Bebo *I drink*	Bebí *I drunk*	Voy a beber *I'm going to drink*
16. Comer *To eat*	Como *I eat*	Comí *I ate*	Voy a comer *I'm going to eat*
17. Leer *To read*	Leo *I read*	Leí *I read*	Voy a leer *I'm going to read*
18. Compartir *To share*	Comparto *I share*	Compartí *I shared*	Voy a compartir *I am going to share*
19. Escribir *To write*	Escribo *I write*	Escribí *I wrote*	Voy a escribir *I'm going to write*
20. Vivir *To live*	Vivo *I live*	Viví *I lived*	Voy a vivir *I'm going to live*

IRREGULAR VERBS

Verb	Present	Preterite	Near future
1. Conocer* *To know*	Conozco *I know*	Conocí *I knew*	Voy a conocer *I'm going to know*
2. Creer *To believe*	Creo *I believe*	Creí *I believed*	Voy a creer *I'm going to believe*
3. Decir *To say*	Digo *I drink*	Dije *I said*	Voy a decir *I'm going to say*
4. Encontrar *To find*	Encuentro *I find*	Encontré *I found*	Voy a encontrar *I'm going to find*
5. Estar *To share*	Estoy *I am*	Estuve *I was*	Voy a estar *I'm going to be*
6. Haber *To have (aux.)*	Hay *There is/are*	Hubo *There was/were*	Va a haber *There is/are going to be*
7. Hacer *To do/make*	Hago *I do/make*	Hice *I did/made*	Voy a hacer *I'm going to do/make*
8. Ir *To go*	Voy *I go*	Fui *I went*	Voy a ir *I'm going to go*
9. Jugar *To play*	Juego *I play*	Jugué *I played*	Voy a jugar *I'm going to play*
10. Pensar *To think*	Pienso *I think*	Pensé *I thought*	Voy a pensar *I'm going to think*
11. Perder *To lose*	Pierdo *I lose*	Perdí *I lost*	Voy a perder *I'm going to lose*
12. Poder *To be able to*	Puedo *I can*	Pude *I could*	Voy a poder *I'm going to be able to*
13. Poner *To put*	Pongo *I put*	Puse *I put*	Voy a poner *I'm going to put*
14. Preferir *To prefer*	Prefiero *I prefer*	Preferí *I preferred*	Voy a preferir *I'm going to prefer*
15. Querer *To want*	Quiero *I want*	Quise *I wanted*	Voy a querer *I'm going to want*
16. Saber* *To know*	Sé *I know*	Supe *I knew*	Voy a saber *I'm going to know*
17. Sacar *To take*	Saco *I take*	Saqué *I took*	Voy a sacar *I'm going to take*
18. Salir *To go out*	Salgo *I go out*	Salí *I went out*	Voy a salir *I'm going to go out*
19. Ser *To be*	Soy *I am*	Fui *I was*	Voy a ser *I'm going to be*
20. Ver *To see*	Veo *I see*	Vi *I saw*	Voy a ver *I'm going to see*

USEFULTIME EXPRESSIONS

Present tense

Hoy	*Today*
Esta mañana/tarde	*This morn./after.*
Esta semana	*This week*
Este mes	*This month*
Este verano	*This summer*
Esta noche	*Tonight*

Past tense

Ayer	*Yesterday*
Anteayer	*Day before yest.*
Anoche	*Last night*
El otro día	*The other day*
El mes pasado	*Last month*
La semana pasada	*Last week*
El año pasado	*Last year*
El verano pasado	*Last summer*

Future tense

Mañana	*Tomorrow*
Pasado mañana	*Day after tomorr.*
La semana que viene	*Next week*
El año/mes que viene	*Next year/month*

FREQUENCY EXPRESSIONS

Todos los días	*Every day*
Siempre	*Always*
Casi siempre	*Almost always*
Muchas veces	*Lots of times*
A menudo	*Often*
Dos o tres veces a la semana	*Two or three times a week*
A veces	*Sometimes*
De vez en cuando	*From time to time*
En ocasiones	*Occasionally*
Casi nunca	*Almost never*
Nunca	*never*

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*

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?

Key vocabulary

Mi día favorito/my favourite day	
mi día favorito fue	my favourite day was
por la mañana	in the morning
por la tarde	in the evening
bebí/bebimos	I/we drank
comí/comimos	I ate/we ate
fui/fuimos	I/we went
hice/hicimos	I/we did
monté/montamos en la montaña rusa	I/we went on the roller coaster
saqué/sacamos	I/we took
ví/vimos	I/we saw
visité/visitamos	I/we visited

comprando ropa—buying clothes	
me gusta(n)	I like
¿qué talla?	what size?
pequeño/a	small
mediano/a	medium
grande	big
¿qué número?	what size?
¿cuánto cuesta?	how much?
¿me lo/la/los/las puedo probar?	Can I try it on?

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 cafeteria	a café
unas carniceria	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	nougart
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 rembolso	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)

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

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!

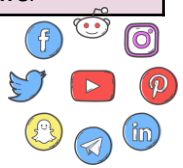
Year 9 Spanish Module 6: Celebrity Culture Knowledge Organiser

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 familiars - 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 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



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)

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

La personalidad – personality	
es	he/she/it is
son	they are
alemán/a	German
amable	friendly
artistico	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

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?

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 cáracter	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

Intensifiers

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

Vocabulario Clave

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

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	a	sacar
vas		trabajar
va		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!

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: The Holocaust (1933-1945)

History

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.

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?

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.

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.

Climate Change Year 9

Climate change: Changes in climate (temperature, rainfall) as a result of natural causes or human activity.
Global warming: The recent increase in global temperatures.
Sustainable: Actions that meet the needs of the present without reducing the ability of future generations to meet their needs.
Quaternary period: The **quaternary period** began 2.6 million years ago and extends into the present.
Greenhouse effect: Warming of the lower atmosphere by heat released from Earth.
Greenhouse gases: Gases such as carbon dioxide and methane, which absorb heat from Earth.
Mitigation: Aim strategies to reduce the causes of climate change.
Adaptation: Strategies responding to changes caused by climate change.
Strategy: A plan of action designed to achieve a long-term or overall aim.

Mitigation strategies aimed to reduce climate change

Geography

Carbon Capture

Although not yet economically viable, carbon capture and storage (CC) uses technology to capture CO^2 that is produced by burning fossil fuels in electricity generation and industrial processes. Once captured, the CO^2 is compressed, piped and injected underground for long-term storage in suitable geological reservoirs, such as depleted oil and gas wells.

Planting trees

Trees act as carbon sinks, removing CO^2 from the atmosphere by the process of photosynthesis. They also release moisture, producing more cloud and so reducing incoming solar radiation. Tree planting is established in many parts of the world. Plantation forests can absorb CO^2 at a faster rate than natural forests and can do so effectively for up to 50 years.

International Agreements

Climate change is a global issue requiring global solutions. Governments are negotiating towards a more sustainable future. For example, the Paris Agreement (2015) was the first legally binding global climate deal. It aims to limit global temperature increases to 1.5°C above pre-industrial levels.

Alternative Energy Sources

The burning of fossil fuels accounts for 87% of all CO^2 emissions. Alternative sources of energy such as hydroelectric power (HEP), nuclear power, solar, wind and tides represent sustainable, low carbon alternatives.
The UK aims to produce 15% of its energy from renewable energy sources by 2020.

Natural causes of climate change

Orbital Changes

Three distinct cycles increase (cooling) or decrease (warming) the distance from the Sun

- **Eccentricity**- every 100,000 years or so the orbit changes from almost circular, to mildly elliptical (oval) and back again.
- **Axial tilt**- every 41,000 years the tilt of the Earth's axis moves back and forth between 21.5° and 24.5°.
- **Precession**- over a period of around 26,000 years the axis wobbles from one extreme to another.

Solar Activity

The surface of the Sun has dark patches called sunspots which mark short-term regions of reduced surface temperature. They are usually accompanied by explosive, high-energy solar flares increasing hear output.

Over a period of around 11 years, sunspots increase from a minimum to a maximum, and back again.

Volcanic Activity

Volcanic ash can block out the Sun, reducing temperatures on the Earth. This is a short-term impact.

Sulphur dioxide is also blasted out which converts to droplets of sulphuric acid, and acts like mirrors to reflect solar radiation back into space. This long-term impact (over many years) also reduces temperatures.

What are the global impacts of climate change?

- Stronger tropical storms.
- More heat-related illness and disease such as malaria.
- Increased risk of natural hazards, such as droughts and floods.
- Economic impacts, such as lower crop yields and damage to infrastructure.
- Rising sea levels threaten low-lying coastal areas.
- Wildlife at risk as habitats and ecosystem change.
- Environmental impacts, such as desertification
- Higher globa.l temperatures affect food production and water supply.

Adaptation strategies aimed to reduce climate change

Agricultural Adaptation

Scientists believe that climate change will have a huge impact on agricultural systems across the world.

- Patterns of rainfall and temperature will change.
- Extreme weather events such as heatwaves, droughts and floods will become more common.
- The distribution of pests and diseases will change.

Farmers need to adapt to these changes.

Agriculture adaptation in low latitudes

Scientists think that the greatest changes to agriculture will occur in low latitudes. Southern Africa's maize crop could fall by 30 per centre by 2030 and the production of rice in South Asia could fall by 10%

Agricultural adaptation in middle latitudes

A warmer climate in Europe and North America could lead to an increase in production of certain crops such as wheat. In the UK, Mediterranean crops such as vines and olives may thrive.

Managing Water Supply

Climate change is already causing more severe and more frequent droughts and floods. Unreliable rainfall and periods of water shortage require careful management.
Future climate change will affect the current patterns of water supply, impacting on the quantity and quality of our water.
It is the most vulnerable, particularly in rural parts of poorer countries, who are likely to be affected the most.

Managing water supply in the Himalayas

Millions of people in Asia depend on rivers fed by snow and glacial melt for their domestic and agricultural water supply. In the Himalayas most of the 16,000 glaciers are receding rapidly due to global warming. This threatens the long-term security of water in supply in the region.

Reducing risk from rising sea levels

Did you know that average sea levels have risen by 20cm since 1900? By 2100 sea levels are expected to rise by a further 26-82cm. This will flood important agricultural land in countries such as Bangladesh, India and Vietnam.

As sea levels rise, rates of coastal erosion will increase. Fresh water supplies will become contaminated by saltwater and coastal areas will be prone to damage from storm surges.

Management in the Maldives

The Maldives are a group of tiny islands in the Indian Ocean. The highest point on the islands is just 2.4m. Some climate models suggest that they will be submerged by 2070. The 380,000 inhabitants have a very uncertain future as sea levels rise.

- Construction of sea walls- 3m wall is being constructed around he capital Male with sandbags.
- Building houses that are raised off the ground on stilts.
- Construction of artificial island up to 3m high so that people most at risk could be relocated.
- Restoration of coastal mangrove forests- their tangled roots trap sediment and offer protection from storm waves.

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

Water colour Basics

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.

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.

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.

Adding Texture with Salt

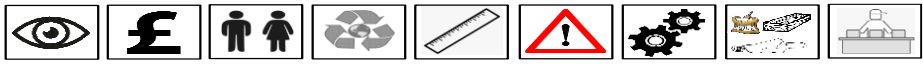
When salt is sprinkled on a wet wash, it starts to gather the watercolour pigments and makes the coolest texture. The effect will vary depending on the size of the grains of salt and the wetness of the paper, so experiment on scraps of watercolour paper before you commit on your final painting.
Once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

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

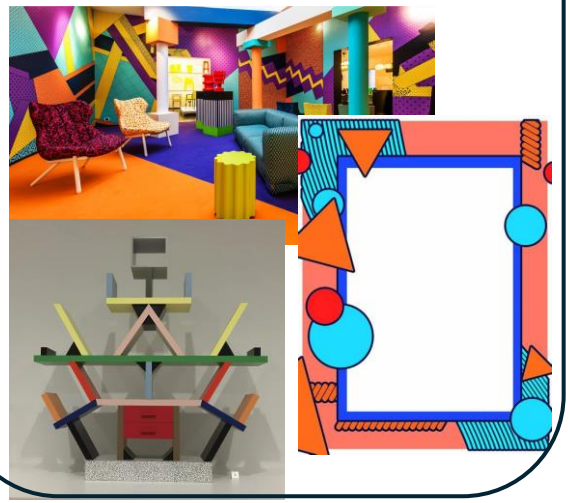
So, who are the users? What do they do?

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

Mitre

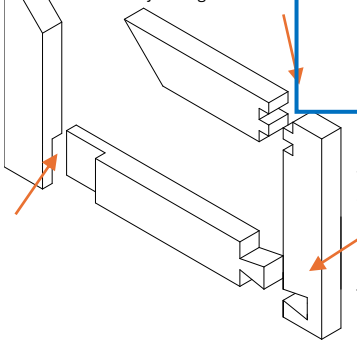
It is made by cutting 2 pieces of timber at angle of 45 degrees to ensure they fit into each other

Finger

If the joint is cut accurately the fingers should fit together without any gaps. The glue ensures that they are fairly strong..

Half lap

This can be used in the construction of picture frames, windows and doors. Half the thickness of the wood is removed from the 2 pieces to be joined. The wood is then fitted together with a resulting joint that is the same thickness as the rest. This can be reinforced by dowels or fasteners.



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.

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.

Year 9: Photo Frame User centred design

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

['tär-gət 'mär-kət]

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.

Engineering Vocabulary: Talk like an Engineer

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.

Ferrous
These are metals that contain iron. This means the metal will rust.

Non-Ferrous
These are metals that do not contain iron and therefore do not rust.

Alloy
is a metal (parent metal) combined with other substances resulting in superior properties such as; strength, hardness, durability, ductility, tensile strength and

Thermoplastic
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

Thermoset
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.

ERGONOMICS
Using data to make a product comfortable and easy to use for the user.

ANTHROPOMETRIC
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.

Textiles

Year 9 Rotation Textiles Knowledge Organiser: Methods of fabric decoration

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 dyed, 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.

Equipment needed:

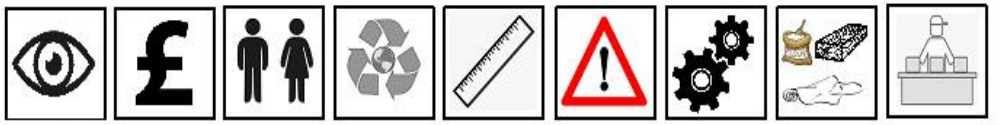

Fabric
Dye
Paintbrush
Dye container



Wax kettle

Wax

Tjanting tool




Decorative machine embroidery

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


Different types of embroidery thread


Different size embroidery needles


Different size embroidery rings


Embroidery scissors


Stitch selector:
A = straight stich
B = Zig-zag stitch


Range of different embroidery stitches

Parts of a Sewing machine


Bobbin


Foot peddle


Thread take-up-lever

Thread holder


Stitch width dial

Reverse lever


Stitch length dial

Hand wheel

Tension dial

Lever for presser foot

Stitch length dial

Stitch selector

Needle


Presser foot


Power switch – 2 speeds


Reverse Lever

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

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?

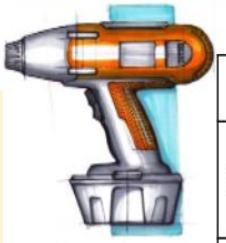
Examples of where you might find illustration might be in picture books, advertising, magazines, newspapers, instruction manuals, posters for gigs or movies, products like T-shirts or greeting cards and even in fashion and film. An illustrator is responsible for taking an idea and turning it into something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



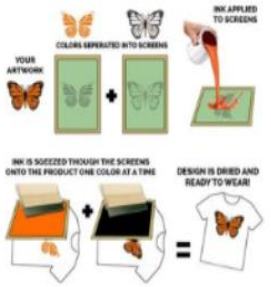
Markers are a great way to make 2D drawings look 3D by adding light and dark tones. With practice they are more realistic and vibrant than painting and pencil crayons. Many product designers and illustrators use this method.

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:



Planography- prints drawn onto the surface e.g., Mono-printing and Lithographic Printing

Relief- prints the surface e.g., Block printing

Intaglio- prints below surface e.g., Etching and Engraving

Stencil- through open areas e.g., Screen Printing

Printing Technique	Outline of process	Uses/Examples
Screen Printing (Stencil)	Images are printed through a screen mesh using stencilling techniques.	•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.	• fine art prints •printing lengths of fabrics •greetings 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.**	**• Fine art prints** **•Posters** •Books illustrations
Mono Printing (Planograph hic) 	**Draw designs directly onto an inked surface lay a piece of paper on top of the inked surface to pick up the design.**	**Mono-printing is mainly used for fine art prints and textiles work. It is used for single prints or very small 'runs'.** **Lithographic is used for magazines and posters which are printed in high volumes.**

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 ℃ and 63 ℃. Below 5 ℃ most bacteria are unable to multiply rapidly, and below -18 ℃ they become **dormant**. Cooking food at high temperatures above 63 ℃ will destroy most bacteria; when cooked, the food should reach 75 ℃ 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 to 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.
- Thy 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.
- The 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.

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.
- If 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 foo 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.

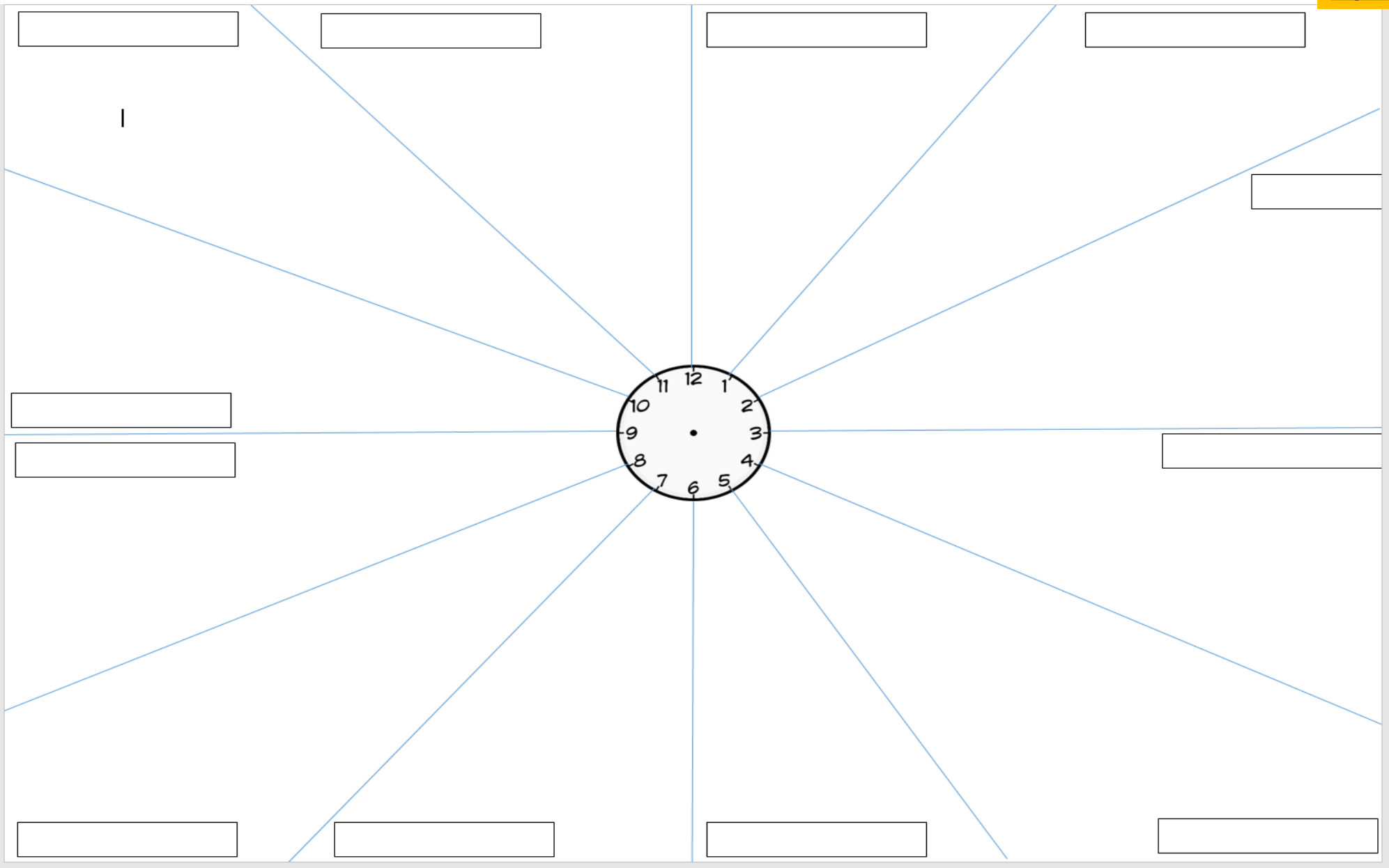
•**Pop some note paper on your fridge door -** and make a note of things you are running out of.

•**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!

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.



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.

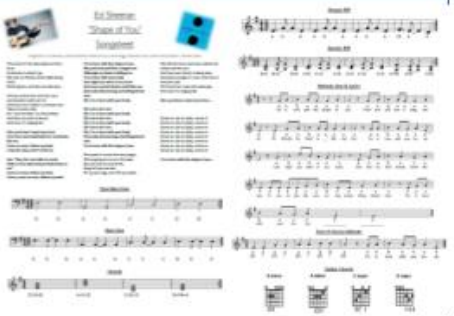
MELODY – The main tune of the song often sung by the **LEAD SINGER**.

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.



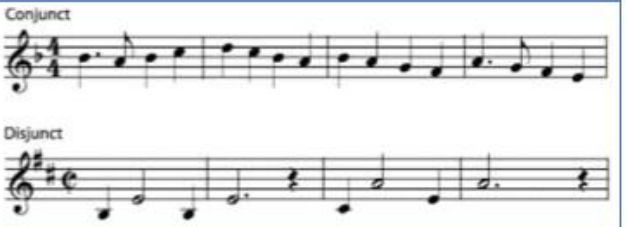
COVER (VERSION) – A new performance, remake or recording by someone other than the original artist or composer of the song.

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.

Dance Appreciation
Rosie Kay: 5 Soldiers

Rosie Kay showcases her extraordinary choreographic vision in this acclaimed production. 5 Soldiers is a thrilling dance piece portraying a humane portrait of army life, selling the stories of five men and women serving on the frontline. Powerful physicality, moments of humour and full of honesty, 5 Soldiers is inspired by input from serving and former soldiers.

'5 SOLDIERS' provides an intimate view of the training that prepares our soldiers for the sheer physicality of combat and the impact conflict has on the bodies and minds of everyone it touches.

5 SOLDIERS delivers Kay's trademark style of intense physical and athletic dance theatre. The work received audience and critical acclaim in 2010 and 2011, and has been endorsed as 'getting it' by its military audiences.

Dance Appreciation

- The choreographic content, including: the movements, dynamics and actions used.
- The choreographic intent, this includes the stimulus, the mood and meaning of the work.
- The features of production including music choice, style of dance, lighting, set, costume and props.

Performance skills:

- **Movement Memory**
- **Accuracy of Action**
- **Timing**
- **Dynamics**
- **Projection**

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

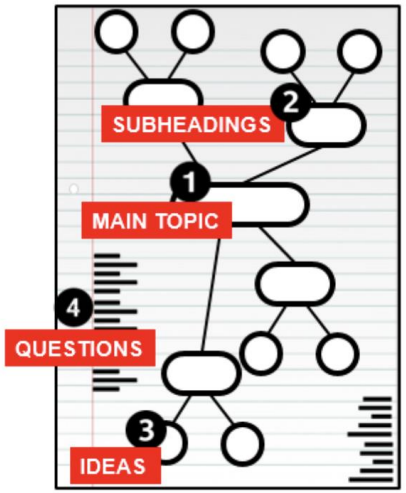
Mind Mapping and Brainstorming is a highly visual method of representing information

- 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 then as a digital method
- Make sure you start in the centre of the page

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

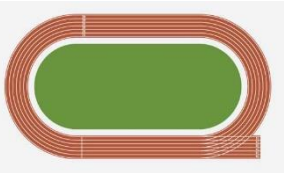


1. Determine **the overall topic** or theme
   - Write this in **the centre of your page** and **circle it**
   - If the main focus of your mind map changes – create an **additional mind map** – do not add the new focus to the mind map that you are already working on.
2. You will need to add **major 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

Year 9 Athletics

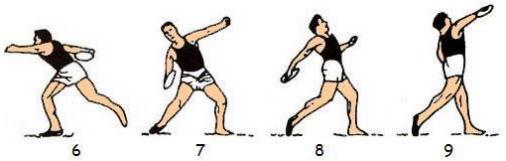
PE

Running	An action to move as quickly as possible using the correct technique with both your arms and legs.
Jumping	The ability to propel your body into the air to gain as much height, distance or both.
Throwing	The ability to propel an object through the air as far as possible.



Pacing your run for long distance events

Effective pacing can make a huge difference to your race time. Don't start off sprinting as you will burn all of your energy out quickly. Start off slower than your fastest speed to keep your energy levels high.
You can then, towards the end of the race, begin to speed up and reach your max speed right at the end of the race.



Sprint –

100m, 200m and 400m. The aim is to finish in the quickest time. 100m is a straight run. 200m includes a bend and you have a staggered start. 400m is one full lap of an official sized track and you have a staggered start. For all sprints you MUST stay in your lane.

Key words

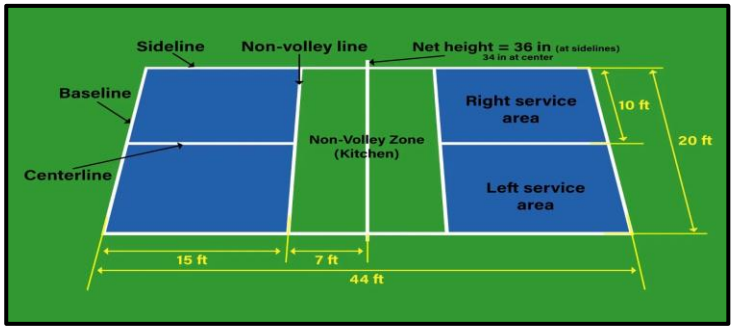
- Coordination
- Reaction time
- Strength
- Speed
- Timing
- Flexibility
- Stamina
- Accelerate
- Pace
- Relay
- Evaluate
- Improve
- Technique

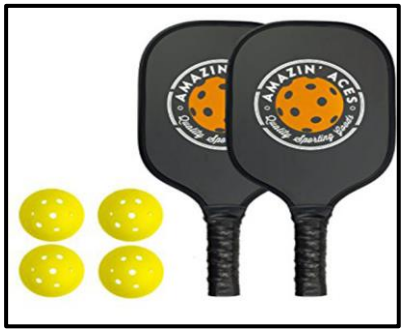
Discus

- Spread your fingers and place your hand on top of the discus, gripping the edge with your finger tips;
- Always stood side on with your throwing arm behind;
- Initially your back leg should be bent and then this weight will transfer on to your front leg;
- Your non throwing arm should point in the direction of the throw;
- Your hand should stay on top of the discus with the back of your hand pointing to the sky;
- Your hips should drive forward as you twist;
- Throwing arm should stay relaxed and straight and come through fast and release the discus.

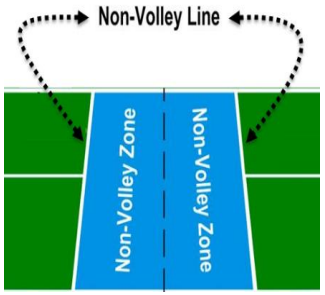
Rules - Each individual discipline has its own specific set of rules and competitors are expected to abide by these to ensure that the competition is fair.

Pickleball





Non-Volley Zone (The Kitchen)



The purpose of this area is to make gameplay more challenging.

Players **cannot** volley the ball whilst any part of their body is in this area.

If a player has volleyed the ball and their momentum carries them into this zone afterwards, they lose the point.

Basic Rules

HOW THE GAME IS PLAYED
The game can be played as singles or doubles.
Players use a pickleball bat and pickleball to play.

SCORE
Game is played to 11 points.

POINTS
A point can only be won by the serving team/player.
A ball that hits the line, or goes past the line is considered OUT.

SERVICE
Services are diagonal, like tennis, starting on the right-hand side and alternating.

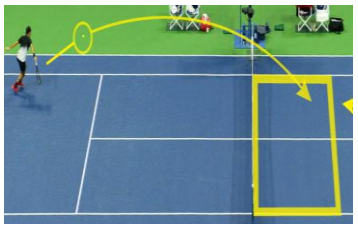
DOUBLE BOUNCE RULE
Each team must play their first shot off the bounce. That is, the receiving team must let the serve bounce and the serving team must let the return of the serve bounce before playing it. From this point, players can then volley.

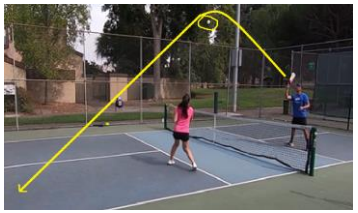
GENERAL OPEN PLAY
The struck ball, whether volleyed or hit after a single bounce, must cross to the opponents side of the court.

VOLLEYS
Volleys are only allowed when both of the player's feet are behind the non-volley zone line. Also, the point is lost if the volleyer's momentum carries the player into the NON-VOLLEY ZONE after volleying.

Skills

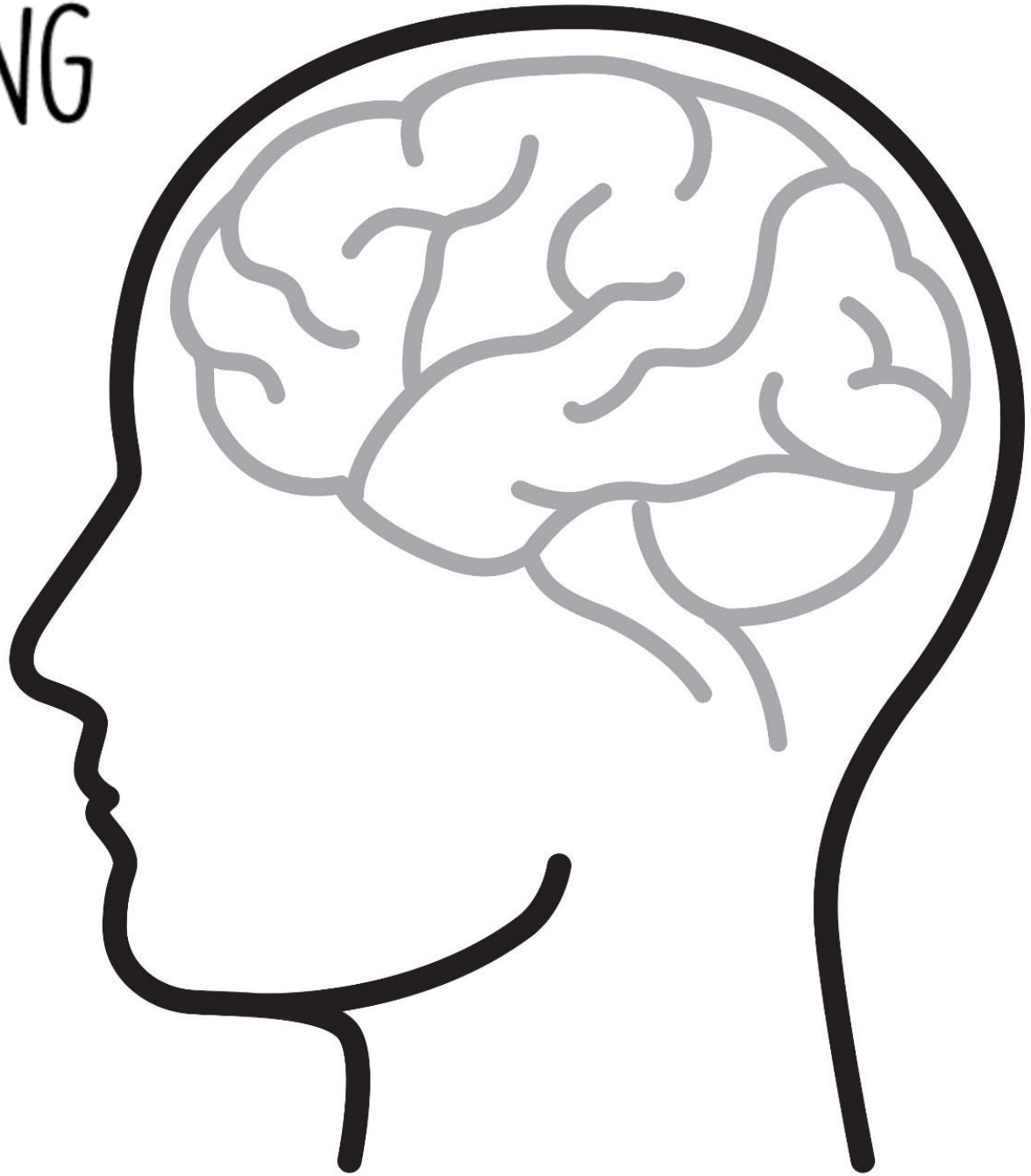
Skill	Definition
Serve	An act of hitting the ball to start play.
Volley	To hit the ball while it is in flight before it has had a chance to bounce.
Forehand	A shot made by swinging the racket across one's body with the hand moving palm-first.
Backhand	A shot made by swinging the racket with the back of the hand moving towards the direction of the stroke.
Drop shot	A softly hit shot, usually with backspin, which drops close to the net
Lob shot	The aim is to lob the shuttle over your opponent and aim the ball as near the baseline as possible



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

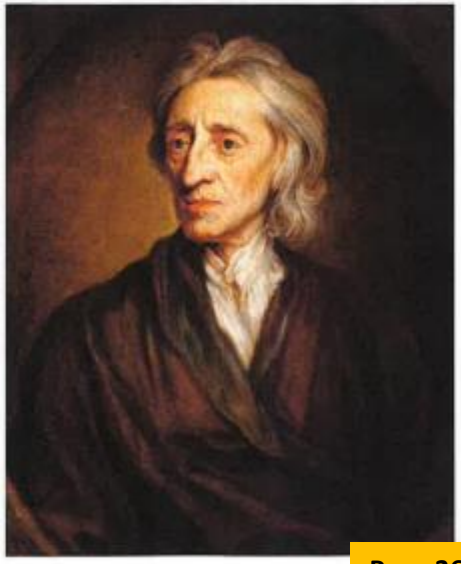
Friedrich Nietzsche 19th-century German atheist who expressed his belief that humans no longer needed the idea of God by saying 'God is dead and we have killed him'

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



KEYWORD 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 or 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	**Fate** (adjective) – destiny
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)	**Integral** (adjective) – important
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	**Microcosm** (noun) – a smaller community which represents a larger one	**Demise** (noun) – a person's downfall or death
Salient (adjective) – most noticeable and important	**Autonomy** (noun) – independence	**Compassionate** (adjective) – sympathetic	**Chauvinistic** (adjective) – has an attitude of superiority to opposite sex	**Segregated** (adjective) - separated	**Aloof** (adjective) – stand-offish	**Ridicule** (verb) – to make fun of
Advantageous (adjective) – providing an advantage / beneficial	**Assertive** (adjective) – confidence	**Vindictive** (adjective) – spiteful, cruel	**Materialistic** (adjective) – cares for objects and commodities	**Misogynistic** (adjective) – hateful towards women	**Degenerate** (adjective) – disgusting	**Deride** (verb) – to mock
Galvanize (verb) – to shock or excite someone into action	**Conceited** (adjective) – excessively proud / vain	**Duplicitous** (adjective) – having two sides	**Prophetic** (adjective) – able to accurately predict	**Choleric** (adjective) – quick-tempered, angry	**Depraved** (adjective) – immoral / evil	**Contempt** (noun) – hate
Substantiate (verb) – to provide evidence	**Superior** (adjective) – better than	**Narcissistic** (adjective) – self-obsessed	**Impulsive** (adjective) – rash / careless	**Secular** (adjective) – not religious	Feral (adjective) – wild	**Hysterical** (adjective) – uncontrolled emotion

My BHAmazing vocabulary, written in sentences:

1.

2.

3.

4.

5.

6.

7.