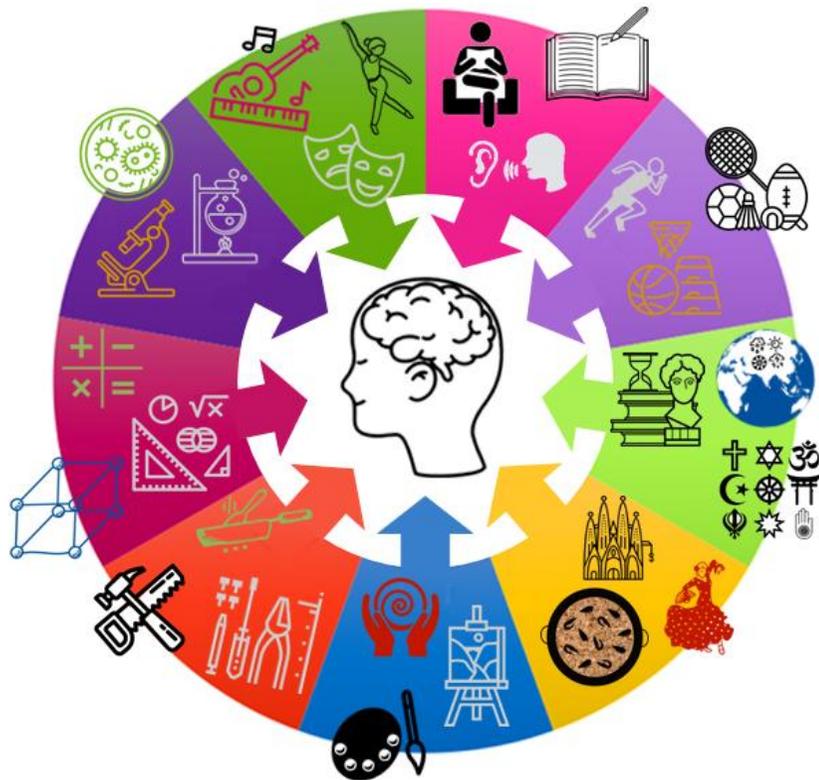


# 100% book - Year 9 Booster

Aim to memorise 100% of the knowledge on these Knowledge Organisers

## Term 3



### Swindon Academy 2025-26

Name:	
Tutor Group:	
Tutor & Room:	

*"If you are not willing to learn, no one can help you.  
If you are determined to learn, no one can stop you."*

# Using your Knowledge Organiser and Quizzable Knowledge Organiser

## Knowledge Organisers

**Year 7 Term 1 Science/Chemistry - Topic: TOP Particles**

**What are we learning this term:**  
 1. Particle model  
 2. Changing state  
 3. Mixtures  
 4. Separating techniques

**4 Key Words for this term:**  
 1. Matter  
 2. Particles  
 3. Gases  
 4. Freezing

**6. What is particle theory?**  
 The theory that all matter is made up of particles.

**A. Describe the properties and movement of particles in the three states of matter.**

State	Arrangement	Movement
Solid	In a regular pattern. Particles can vibrate in a fixed position.	Particles are arranged randomly but are still touching each other. Particles can slide past each other and move around.
Liquid	Particles are far apart and are arranged randomly. Particles carry a lot of energy and they move in all directions in a high speed.	

**A. What is the law of conservation of mass?**  
 The Law of Conservation of Mass states that mass cannot be created or destroyed.

**B. What are the different changes of state?**

Melting	change of state from solid to liquid
Freezing	change of state from liquid to solid
Evaporation	change of state from liquid to gas
Condensation	change of state from gas to liquid

**C. What is the difference between a pure and an impure substance?**

**Pure**: A material that is made up of only one type of particle.

**Impure**: A material that is made up of more than one type of particle.

## Quizzable Knowledge Organisers

**A. What is particle theory?**

**A. What is the law of conservation of mass?**

**A. Describe the arrangement and movement of particles in the three states of matter.**

Solid	
Liquid	
Gas	

**B. What are the different changes of state?**

Melting	
Freezing	
Evaporation	
Condensation	

**C. What is the difference between a pure and an impure substance?**

**Pure**

**Impure**

Diagram showing particle arrangements for solid, liquid, and gas states.

Knowledge Organisers contain the essential knowledge that you MUST know in order to be successful this year and in all subsequent years.

They will help you learn, revise and retain what you have learnt in lessons in order to move the knowledge from your short-term memory to long-term memory.

These are designed to help you quiz yourself on the essential Knowledge.

Use them to test yourself or get someone else to test you, until you are confident you can recall the information from memory.

### Top Tip

Don't write on your Quizzable Knowledge Organisers! Quiz yourself by writing the missing words in your prep book. That way you can quiz yourself again and again!

## Expectations for Prep and for using your Knowledge Organisers

1. Complete all prep work set in your subject prep book.
2. Bring your prep book to every lesson and ensure that you have completed all work by the deadline.
3. Take pride in your prep book – keep it neat and tidy.
4. Present work in your prep book to the same standard you are expected to do in class.
5. Ensure that your use of SPAG is accurate.
6. Write in blue or black pen and sketch in pencil.
7. Ensure every piece of work has a title and date.
8. Use a ruler for straight lines.
9. If you are unsure about the prep, speak to your teacher.
10. Review your prep work in green pen using the mark scheme.

# How do I complete Knowledge Organiser Prep?

## Step 1

Check Epraise and identify what words /definitions/facts you have been asked to learn. Find the Knowledge Organiser you need to use.

The screenshot shows the epraise website interface. On the left is a 'Planner' for the week of 10th May to 14th May 2020, with a grid for different subjects. On the right is a 'New Year's Homework/Revision: Topic TSP Pack' for 'What is particle theory?'. It includes sections for 'What is particle theory?', 'Describe the arrangement and movement of particles in the three states of matter', and 'What is the law of conservation of mass?'. There are also diagrams of particle arrangements for solid, liquid, and gas states.

## Step 2

Write today's date and the title from your Knowledge Organiser in your Prep Book.

The screenshot shows a student's prep book. The date '29th May 2020' and the title 'Particle theory' are written in the top right corner of the knowledge organiser template. The template includes sections for 'What is particle theory?', 'Describe the arrangement and movement of particles in the three states of matter', and 'What is the law of conservation of mass?'. There are also diagrams of particle arrangements for solid, liquid, and gas states.

## Step 3

Write out the keywords/definitions/facts from your Knowledge Organiser in FULL.

The screenshot shows a student's prep book with the keywords/definitions/facts from the knowledge organiser written out in full. The text includes: '29th May 2020', 'Properties of the states of matter', 'Particle theory = all matter is made of particles', 'Solid = regular pattern particles vibrate in fixed position', 'Liquid = particles are arranged randomly but are still touching each other. Particles can slide past each other and move around.', and 'Gas = Particles are far apart and are arranged randomly. Particles carry a lot of energy.'

## Step 4

Read the keywords/definitions/facts out loud to yourself again and again and write the keywords/definitions/facts at least 3 times.

The screenshot shows a student's prep book with the keywords/definitions/facts from the knowledge organiser written out three times. The text includes: 'Solid = regular pattern particles vibrate in fixed position', 'Solid = regular pattern particles vibrate in fixed position', and 'Solid = regular pattern particles vibrate in fixed position.'

## Step 5

Open your quizzable Knowledge Organiser. Write the missing words from your quizzable Knowledge organiser in your prep book.

The screenshot shows a student's prep book with the missing words from the quizzable knowledge organiser written in the prep book. The text includes: 'Self quizzing', 'Arrangement/movement of matter', 'Solid = regular pattern particles vibrate in fixed position', 'Liquid =', and 'Gas ='. There are also diagrams of particle arrangements for solid, liquid, and gas states.

## Step 6

Check your answers using your Knowledge Organiser. Repeat Steps 3 to 5 with any questions you got wrong until you are confident.

The screenshot shows a student's prep book with the keywords/definitions/facts from the knowledge organiser written out in full, with corrections. The text includes: 'Particle theory = all matter is made of particles', 'Solid = regular pattern particles vibrate in fixed position', 'Liquid = particles are arranged randomly but are still touching each other. Particles can slide past each other and move around.', and 'Gas = Particles are far apart and are arranged randomly. Particles carry a lot of energy.'

Make sure you bring in your completed Prep notes to demonstrate that you have completed your prep.

## Year 9 Poetry: T Knowledge Organiser

Poem Journey Type		
<p>'Wherever I Hang' Grace Nichols</p>	<ul style="list-style-type: none"> <li>Physical journey from Guyana to England</li> <li>Spiritual reflection of the changes she has made in her viewpoints</li> </ul>	<ol style="list-style-type: none"> <li>'I leave me people, me land, me home / For reasons I not too sure'</li> <li>'And de people pouring from de underground system / Like beans'</li> <li>'I don't know really where I belong'</li> </ol>
<p>'Island man' Grace Nichols</p>	<ul style="list-style-type: none"> <li>Physical journey from the island to England</li> <li>Spiritual reflection on changes but the speaker resists the new culture as he misses his homeland</li> </ul>	<ol style="list-style-type: none"> <li>"His small emerald island" "wild sea birds"</li> <li>"he always comes back" "groggily groggily"</li> <li>'Grey metallic soar" "dull North Circular roar"</li> </ol>
<p>"Still I Rise" Maya Angelou</p>	<ul style="list-style-type: none"> <li>Spiritual journey of empowerment</li> <li>Journey of past history</li> </ul>	<ol style="list-style-type: none"> <li>"cause I laugh like I've got gold mines/ Diggin' in my own backyard"</li> <li>"You may cut me with your words/ you may kill me with your hatefulness"</li> <li>"out of huts of history's shame" "up from a pasts that's rooted in pain"</li> <li>"I rise/I rise/I rise"</li> </ol>

### Vocabulary: Key words

Immigrant:- a person who moves to live in another country permanently. When **immigrants** travel to a new place, they **migrate**.

Dialect: a form of language that is used in a specific area.

Empowerment - authority or power given to someone to do something

Slang: very informal language used by particular groups of people. It is usually spoken rather than written.

### Terminology: Key words

Volta – a change in tone in a poem

Discourse markers: A word or phrase that helps to organise communication

Personification: a type of metaphor used by writers to make something seem like it is alive with a human personality.

### Historical Context:

Nichols is an immigrant who wrote about the Afro-Caribbean experience. She uses dialect in her poems and is influenced by the rhythmic nature of Caribbean language.

Angelou was an American poet. She lived in segregation and was an active in the civil rights movement – even partnering with Martin Luther King Jr. Her writing reflects both the struggle and celebration of Black Americans in the 20<sup>th</sup> century as well as the liberation of women in a male dominated world.

### Unseen poetry steps

- Read the title
- Read the poem and track the events
- What are the possible messages?
- Analyse the language
- Analyse structure
- Review your WHAT and WHYS

#### Write a full essay

- Thesis
- WHAT, HOW WHY x3
- Conclusion

## Year 9 Poetry: T Knowledge Organiser

Poem Journey Type		
'Wherever I Hang' _____ _____	<ul style="list-style-type: none"> <li>Physical journey from _____</li> <li>Spiritual reflection of the changes _____</li> </ul>	1. 'I leave me _____, me _____, me _____ / For reasons I not too sure' 2. 'And de people _____ from de underground system / Like _____s' 3. 'I don't know really where I _____'
'Island man' _____ _____	<ul style="list-style-type: none"> <li>Physical journey from the _____</li> <li>Spiritual reflection on changes but the speaker resists the _____</li> </ul>	1. "His _____ I _____ island" "wild _____ birds" 2. "he always comes back" "groggily _____" 3. 'Grey _____ soar" "dull North _____ roar"
"Still I Rise" _____ _____	<ul style="list-style-type: none"> <li>Spiritual journey of _____</li> <li>Journey of _____</li> </ul>	1. "cause I laugh like I've got _____ / Diggin' in my _____ backyard" 2. "You may _____ me with your words/ you may _____ me with your hatefulness" 3. "out of huts of history's _____ "up from a pasts that's _____ in pain" 4. "I rise/I rise/ _____"

### Vocabulary: Key words

\_\_\_\_\_ : a person who moves to live in another country permanently.  
 When **immigrants** travel to a new place, they **migrate**.

\_\_\_\_\_ : a form of language that is used in a specific area.

\_\_\_\_\_ - authority or power given to someone to do something

\_\_\_\_\_ : very informal language used by particular groups of people. It is usually spoken rather than written.

### Terminology: Key words

\_\_\_\_\_ – a change in tone in a poem

\_\_\_\_\_ : A word or phrase that helps to organise communication

\_\_\_\_\_ : a type of metaphor used by writers to make something seem like it is alive with a human personality.

### Historical Context:

\_\_\_\_\_ is an immigrant who wrote about the Afro-Caribbean experience. She uses dialect in her poems and is influenced by the rhythmic nature of \_\_\_\_\_ language.

\_\_\_\_\_ was an American poet. She lived in segregation and was an active in the civil rights movement – even partnering with Martin Luther King Jr. Her writing reflects both the struggle and celebration of \_\_\_\_\_ in the 20<sup>th</sup> century as well as the liberation of women in a male dominated world.

### Unseen poetry steps

- Read the \_\_\_\_\_
- Read the \_\_\_\_\_ and track the events
- What are the possible \_\_\_\_\_?
- Analyse the \_\_\_\_\_
- Analyse \_\_\_\_\_
- Review your WHAT and WHYs

#### Write a full essay

- Thesis
- \_\_\_\_\_, HOW \_\_\_\_\_ x3
- Conclusion



# T3 Y9 sets 1-6 C Atomic structure and the periodic table



## What we are learning this term:

- A. Atoms, elements and compounds
- B. Mixtures and separation
- C. Development of the atomic model
- D. Structure of the atom
- E. Electronic structure

## 6 Key Words for this term

1. Isotopes
2. Protons
3. Ionisation
4. Aqueous
5. Residue

## B. What is a mixture?

A mixture consists of two or more elements or compounds not chemically combined.

## What properties do mixtures have?

Each substance in the mixture will have the same chemical properties

## How are mixtures separated?

By physical methods:	Filtration
Crystallisation	Simple Distillation
Fractional Distillation	Chromatography

## Are new substances made?

No new substances are made

## A. What is Conservation of Mass

Atoms are not created or destroyed in a reaction

## A. What are atoms?

All substances are made of atoms. An atom is the smallest part of an element that can exist

What are elements?	What are compounds?
--------------------	---------------------

An element is a substance made of one type of atom	Compounds contain two or more elements chemically combined
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How are elements represented?	How are compounds represented?
-------------------------------	--------------------------------

By a chemical symbol.	By the symbols of the atoms that formed them
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<b>Example: Sodium</b>	Na	<b>Example: Sodium Chloride</b>	NaCl
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How many elements are there?	How can compounds be separated?
------------------------------	---------------------------------

There are about 100, all shown on the periodic table	By chemical reactions only
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## A. What are word equations?

These show the names of each substance that is involved in a chemical reaction. The reactants are shown on the left. The products are shown on the right.



## What are symbol equations?

The chemical formulae (symbols) of the reactants and products show what happens in a chemical reaction

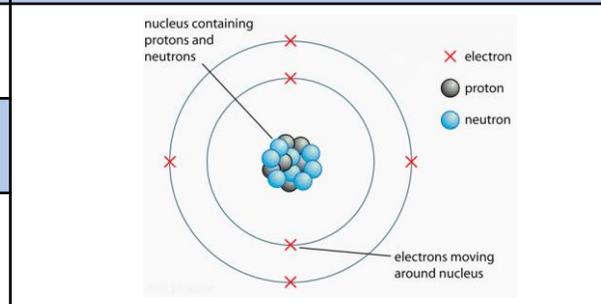


D. What are subatomic particles?	Where are each subatomic particles found?
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The particles that make up atoms

## Name the 3 subatomic particles

Protons, neutrons and electrons





# T3 Y9 sets 1-6 C Atomic structure and the periodic table



C. Development of the Atomic Model – How was our current atomic model developed?					
Person/Time	Democritus (400BC) Dalton (1803)	JJ Thomson (1898)	Ernest Rutherford (1909)	Niels Bohr (1913)	James Chadwick (1932)
Ideas/model	<ul style="list-style-type: none"> <li>Small indivisible matter</li> <li>Tiny hard spheres.</li> </ul>	Plum Pudding model  <ul style="list-style-type: none"> <li>Sphere of positive charge with negative charged particles spread throughout (like plums in a pudding)</li> </ul>	<ul style="list-style-type: none"> <li>Alpha particle scattering experiment</li> <li>Proved that mass of atoms found in the centre – nucleus</li> <li>Negative electrons surround the positive nucleus</li> </ul>	<ul style="list-style-type: none"> <li>Electrons are restricted to certain orbits like planets round the sun</li> </ul>	<ul style="list-style-type: none"> <li>Discovered the neutron</li> </ul>
Diagram					
Contribution to current model:	Everything is made of atoms	Negative electrons	Positive mass in the centre surrounded by negative electrons	Electrons orbit in shells/orbitals at specific distances	Neutrons found in nucleus along with protons

D.	How big are atoms?
0.1nm ( $1 \times 10^{-10}$ m)	
How big is the radius of an atom?	
1/10000 the size of the atom – $1 \times 10^{-14}$ m	

D.	What is relative mass and charges of the subatomic particles?	
Subatomic particle	Relative Mass	Relative Charge
Proton	1	+1
Neutron	1	0
Electron	1/2000	-1

D.	What is the overall charge of an atom?
Atoms have no charge	
No of protons = no of electrons	

D.	How do we know how many subatomic particles are in each element?	
C	12	← Mass Number
	What is Mass number?	
	Number of protons and neutrons	
	6	← Atomic Number
What is atomic number?		
Number of protons – same for each individual element		

D.	How can we know what element we have?
Each element has a unique number of protons	
What is an isotope?	
An isotope is a substance with the same number of protons but different number of neutrons	

D.	What is relative atomic mass of an element?
An average value that takes account of the abundance of the isotopes of an element	

E.	Which energy level do electrons fill first?	
Electrons in an atom occupy lowest energy level first		
How many electrons does each orbital hold?		
First		Up to 2
Second		Up to 8
Third		Up to 8

**Electronic structure of Sodium:**

2,8,1



**What we are learning this term:**

- A. Atoms, elements and compounds
- B. Mixtures and separation
- C. Development of the atomic model
- D. Structure of the atom
- E. Electronic structure

**6 Key Words for this term**

- 1. Isotopes
- 2. Protons
- 3. Ionisation
- 4. Aqueous
- 5. Residue

**B. What is a mixture?**

**What properties do mixtures have?**

**How are mixtures separated?**

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**Are new substances made?**

**A. What is Conservation of Mass**

**A. What are atoms?**

<b>What are elements?</b>	<b>What are compounds?</b>
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<b>How are elements represented?</b>	<b>How are compounds represented?</b>
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<b>Example: Sodium</b>	<b>Example: Sodium Chloride</b>
------------------------	---------------------------------

<b>How many elements are there?</b>	<b>How can compounds be separated?</b>
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**A. What are word equations?**



**What are symbol equations?**

<b>D. What are subatomic particles?</b>	<b>Where are each subatomic particles found?</b>
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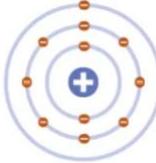
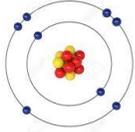
<b>Name the 3 subatomic particles</b>	
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# T3 Y9 sets 1-6 C Atomic structure and the periodic table



C. Development of the Atomic Model – How was our current atomic model developed?					
Person/Time	Democritus (400BC) Dalton (1803)	JJ Thomson (1898)	Ernest Rutherford (1909)	Niels Bohr (1913)	James Chadwick (1932)
Ideas/model					
Diagram					
Contribution to current model:					

D.	How big are atoms?
How big is the radius of an atom?	

D.	What is relative mass and charges of the subatomic particles?	
Subatomic particle	Relative Mass	Relative Charge
Proton		
Neutron		
Electron		

D.	What is the overall charge of an atom?

D.	How do we know how many subatomic particles are in each element?	
C	12	← Mass Number
	6	← Atomic Number
	What is Mass number?	
What is atomic number?		

D.	How can we know what element we have?
What is an isotope?	

D.	What is relative atomic mass of an element?

E.	Which energy level do electrons fill first?
How many electrons does each orbital hold?	
First	
Second	
Third	

**Electronic structure of Sodium:**



**What we are learning this term:**

A. Arrangement of the Periodic table  
 B. Development of the periodic table  
 C. Metals and non metals  
 D. Group 1  
 E. Group 7  
 F. Group 0

**6 Key Words for this term**

1. Halogens                      2. Intermolecular

**C. How many elements are metals?**

Most elements in the periodic table are metal

**What are ions?**

Ions are formed when elements gain or lose electrons

**What are positive ions?**

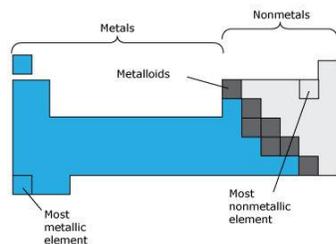
When an element loses an electron it forms a positive ion

**What type of ions do metals form?**

Metals react to form positive ions

**Where are metals and non-metals found on the periodic table?**

Metals are found to the left, towards the bottom.  
 Non-metals are found towards the top right of the periodic table



**A. How are the elements in the periodic table arranged?**

Elements are arranged in order of increasing atomic number.

**What are Groups?**

The vertical columns are groups.

**What similarities do elements in groups have?**

- Similar properties
- Same no of electrons on outer shell

**What are periods?**

The horizontal rows in a periodic table

**B. Before the discovery of protons, how did scientists try to arrange elements?**

Scientists tried to group elements in order of their atomic weights

**What problems were often found with early periodic tables?**

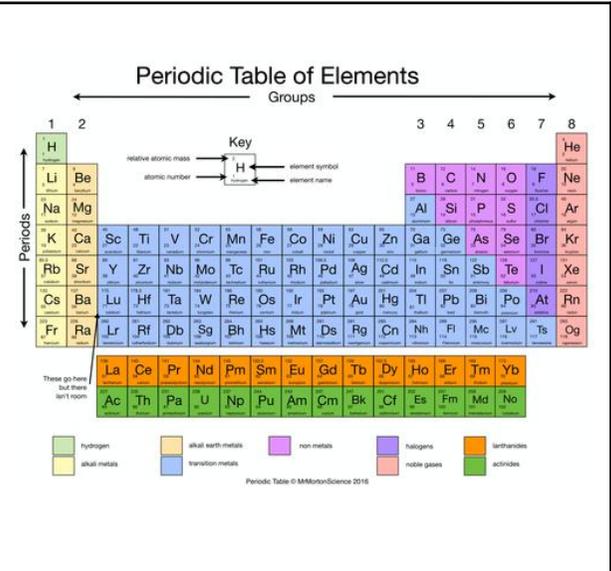
- Not all elements had been discovered
- Some elements placed in the wrong position when atomic weight was used

**C. What are negative ions?**

Ions formed when atoms gain electrons

**What type of ions do non-metals form?**

Non-metals do not form positive ions – they form negative ions

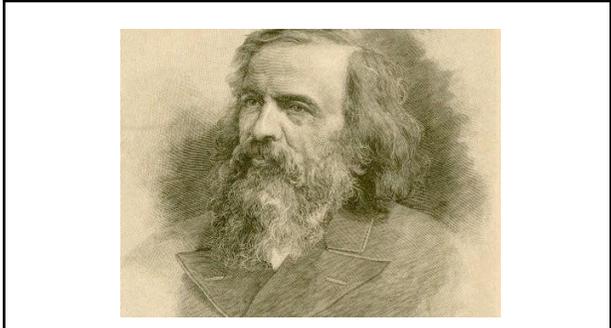


**B. How did Mendeleev overcome some of the problems of grouping elements?**

- He left gaps for possible elements that had not been discovered
- He sometimes changed the order based on atomic weights

**What was discovered that helped explain why using atomic weights didn't always work?**

Knowledge of isotopes





## T3 Y9 sets 1-6 C Atomic structure and the periodic table



D	Group 1 of the Periodic Table -	
What are group 1 elements known as?	Alkali Metals	
Metal or non-metal	Metal	
How many electrons are in the outer shell?	1 electron in the outer shell	
How reactive are they?	<ul style="list-style-type: none"> <li>Group 1 metals easily lose the electron on the outer shell.</li> <li>This makes group 1 elements very reactive</li> <li>Vigorous reactions with water</li> </ul>	
What ions do they form?	<ul style="list-style-type: none"> <li>Group 1 elements readily lose electrons to form positive ions</li> <li>This is so they can have a filled outer shell</li> </ul>	
How does reactivity change down the group?	Reactivity increases down the group	

F.	Group 0 of the Periodic Table – Helium, Neon, Argon, Krypton, Xenon, Radon	
What are group 0 elements known as?	The Noble Gases	
Metal or non-metal	Non-metal	
How many electrons are in the outer shell?	8 - Filled outer shell (except Helium that has 2)	
How reactive are they?	Filled outer shell so not very reactive	
How do boiling points change down the group?	Boiling point increases down the group as the atomic weight increases	

E.	What is a Halogen Displacement reaction?	
A more reactive halogen can displace a less reactive halogen from an aqueous solution from its salt		
$\text{Cl}_2 + 2\text{KBr} \rightarrow 2\text{KCl} + \text{Br}_2$		

E.	Group 7 of the Periodic Table	
What are group 7 elements known as?	Halogens	
How are they found	Halogens travel in pairs – diatomic molecules ( $\text{Cl}_2$ , $\text{Br}_2$ ,...)	
Metal or non-metal	Non-metal	
How many electrons are in the outer shell?	7 electrons in the outer shell	
How reactive are they?	<ul style="list-style-type: none"> <li>Group 7 elements easily gain electrons</li> <li>This makes group 7 elements very reactive</li> </ul>	
What ions do they form?	<ul style="list-style-type: none"> <li>Group 7 elements readily gain electrons to form negative ions.</li> <li>This is so they can have a filled outer shell</li> </ul>	
How does reactivity change down the group	Reactivity decreases down the group	
How do boiling points change down the group?	As you go down the group, the boiling point increases as the atomic weight increases	



**What we are learning this term:**

A. Arrangement of the Periodic table  
 B. Development of the periodic table  
 C. Metals and non metals  
 D. Group 1  
 E. Group 7  
 F. Group 0

**6 Key Words for this term**

1. Halogens                      2. Intermolecular

**C. How many elements are metals?**

**What are ions?**

**What are positive ions?**

**What type of ions do metals form?**

**Where are metals and non-metals found on the periodic table?**

**A. How are the elements in the periodic table arranged?**

**What are Groups?**

**What similarities do elements in groups have?**

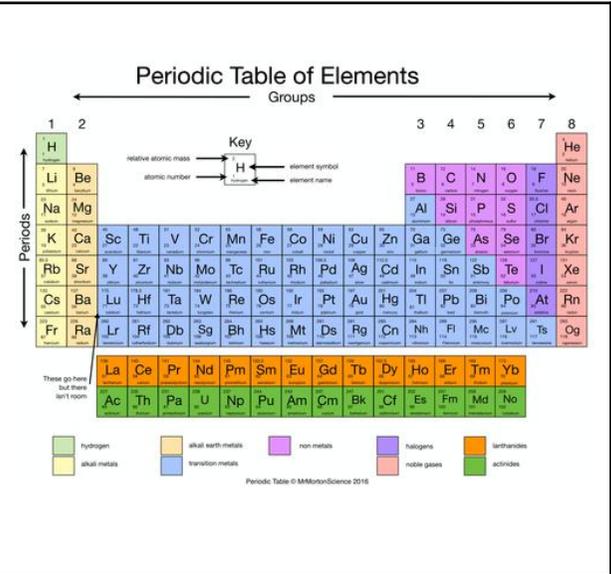
**What are periods?**

**B. Before the discovery of protons, how did scientists try to arrange elements?**

**What problems were often found with early periodic tables?**

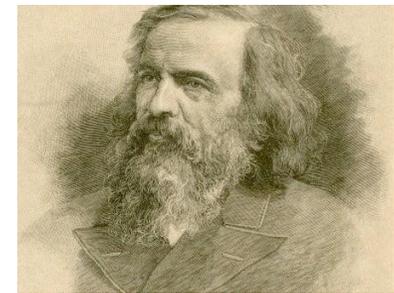
**C, What are negative ions?**

**What type of ions do non-metals form?**

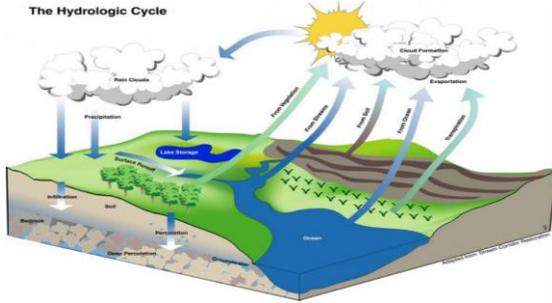


**B. How did Mendeleev overcome some of the problems of grouping elements?**

**What was discovered that helped explain why using atomic weights didn't always work?**

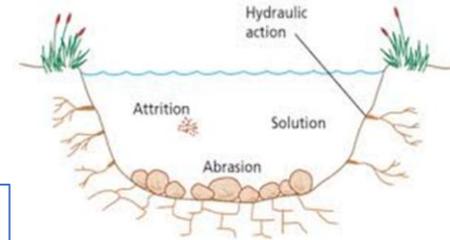






**What are we learning this term**

- A. The Hydrological cycle
- B. Drainage basins
- C. Factors influencing the hydrological cycle
- D. Key terms



Erosion in a river has a number of different forms.

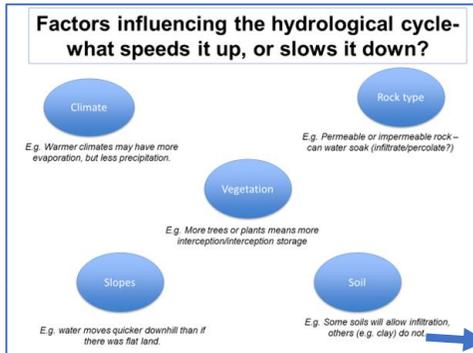


The drainage basin is the area of land drained by a river and its tributaries. Its boundary is the *watershed*. The start of a river is called the *source*, and the end of the river as it enters the sea is the *mouth*. The main river channel may be joined by smaller rivers called *tributaries*, and this meeting point is called a *confluence*.

Some factors will influence the way that water travels to the river – see below.

D	Key terms
Attrition	is the 'smashing' of sediment against each other to become more rounded.
Hydraulic action	is the sheer force of the water breaking down the river banks and bed.
Corrosion (solution)	is the dissolving of material.
Abrasion (corasion)	is the action of sediment scraping against the bed and bank of the river (like sandpaper)

A.	The hydrological cycle
The hydrological cycle is a closed system. This means that water never leaves, or enters the cycle of water from sea, land and atmosphere. The cycle is important because it shows us how water can enter the drainage basin, and how water can be responsible for increasing or decreasing our risk of flooding. Key words include:	
Evaporation	the process of water turning from a liquid in to water vapour as it is warmed.
Transpiration	Transpiration – the loss of water from trees and plants
Condensation	water vapour returning to a liquid once cooled.
Interception	water being trapped by tree leaves and plant leaves
Surface run off	water travelling <b>over</b> the land
Infiltration	water soaking into the soil
Throughflow	water flowing downhill in the soil
Percolation	water passing vertically through soil and rock
Groundwater flow	water flowing vertically through rock.
Channel flow	water flowing in a river channel
Channel storage	water being stored in the river



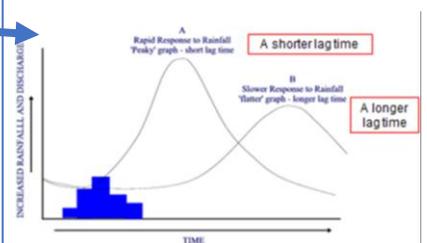
Hydrographs are a method to show us the relationship between rainfall and discharge (the amount of water in the river at a given time). Hydrographs can help us to predict the risk of flooding, but also can help us to understand how water has made it's way the river...

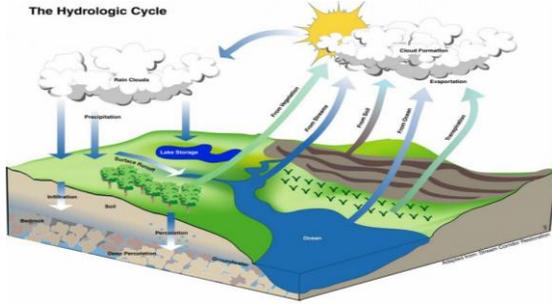
**Transportation.**

- Transportation happens in one of four ways:
- As solution: dissolved minerals carried in the water.
- Suspension: Small particles of rock and soil are carried along – they make the water look cloudy or muddy.

- As **saltation**: sand grains and small stones just bounce along.
- As **traction**: Larger stones and rocks get rolled along.

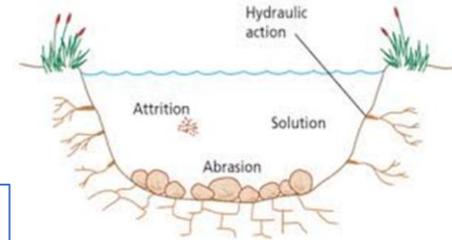
The **lag time** of a hydrograph is the time between the peak rainfall and the peak discharge. If this is long (e.g. b) then it means water will have infiltrated rather than moved through surface run off, as surface run off would cause water to enter the river quickly, and so our hydrograph would have a shorter lag time (e.g. a).





**What are we learning this term**

A. The Hydrological cycle  
 B. Drainage basins  
 C. Factors influencing the hydrological cycle  
 D. Key terms



Erosion in a river has a number of different forms.

A.	The hydrological cycle
The hydrological cycle is a closed system. This means that water never leaves, or enters the cycle of water from sea, land and atmosphere. The cycle is important because it shows us how water can enter the drainage basin, and how water can be responsible for increasing or decreasing our risk of flooding. Key words include:	
Evaporation	
Transpiration	
Condensation	
Interception	
Surface run off	
Infiltration	
Throughflow	
Percolation	
Groundwater flow	
Channel flow	
Channel storage	



Some factors will influence the way that water travels to the river – see below.

The drainage basin is the

\_\_\_\_\_

\_\_\_\_\_

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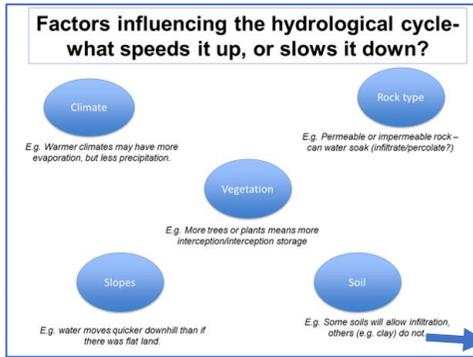
\_\_\_\_\_

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D	Key terms
Attrition	
Hydraulic action	
Corrosion (solution)	
Abrasion (corasion)	



**Transportation.**

- Transportation happens in one of four ways:
- As solution: dissolved minerals carried in the water.
- Suspension: Small particles of rock and soil are carried along – they make the water look cloudy or muddy.

- As **saltation**: sand grains and small stones just bounce along.
- As **traction**: Larger stones and rocks get rolled along.

Hydrographs are

\_\_\_\_\_

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The lag time of a hydrograph is

\_\_\_\_\_

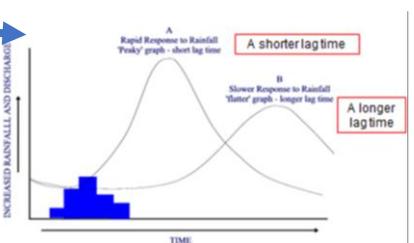
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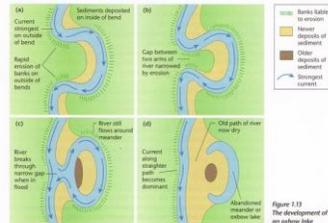
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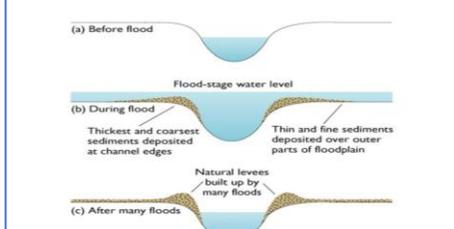


E	Reducing flooding
Rivers flooding can be caused by a number of factors. These could be human factors:	
Farming	ploughing can cause water to collect in the troughs and run directly in to the river.
Urbanisation	building with tarmac and concrete does not allow infiltration so water moves to the river through surface run off, or might sit on the land.
Deforestation	cutting down trees will reduce interception storage and increase surface run off.
Or physical factors:	Or physical factors:
Weather and climate:	hotter weather increases evaporation which will then decrease the amount of discharge. Colder weather will cause more surface run off as frozen ground cannot infiltrate water.
High amounts of rainfall	saturated ground will not infiltrate further rainfall, which increases surface run off, and therefore the discharge in the river.
Steep land	steep land increases surface run off and therefore the discharge in the river

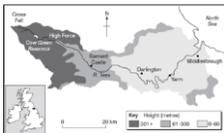


A meander is a bend in a river. Erosion happens on the outside of the bend as the velocity is faster. Deposition happens on the inside of the bend as velocity is slowest. This meander may over time become an oxbow lake as erosion on the outside of the bend exaggerates the bend, and when the river floods, water might take the quickest route – therefore cutting off the bend!

### Formation of Natural Levees



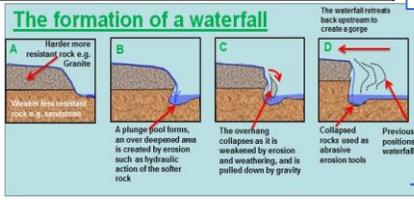
The river is 85 miles long, and drains an area of 710 square miles. Its source is in the Pennine hills, and flows in to the North Sea at Middlesbrough.



**Upper course:** The upper course of the river has impressive waterfalls. The river drops 20m in a single sheet of water – High Force Waterfall (tallest in England). The waterfall has retreated back overtime to form a gorge. There are high v-shaped valleys, and interlocking spurs in the upper course of the river.

**Middle/lower course:** There are good examples of meanders, levees and floodplains along the River Tees. The natural levees have built up over time as the river floods and sediment is deposited on the banks of the river. There are large industries in the lower course of the river, making the most of the flat land and river's flow in to the North Sea. This area of the river needs high levels of management. In Yarn there are extensive flood protection methods.

The image above tracks the journey of a river from source to mouth. Note that the river starts on high land, and meets the sea on flat land. The features of a river will change from source to mouth. This is due to erosion and transportation of material. Typically larger material is found in the upper course of a river, and the material reduces in size as it makes its way to the mouth. Erosion will change from vertical (downwards) to horizontal erosion.



A waterfall will form when bands of hard and soft rock lie on top of each other. Over time the hard (more resistant) rock will be eroded, and therefore the soft rock will be eroded vertically. This creates a plunge pool – and overtime the waterfall will retreat backwards creating a gorge.

The river has been straightened and widened over time to allow navigation for industry and trade.

### Banbury Floods:

Banbury is located in the Cotswolds, north of Oxford.

**Impacts of flooding:**  
In 1998 flooding led to the closure of the railway station, local roads and caused £12.5m damage. More than 150 homes and businesses were affected. In 2007 these impacts were repeated.

- What has been done to reduce flooding?**
- A361 raised, and drainage below the road improved.
  - Earth embankments built.
  - Floodwalls built.
  - Pumping station to transfer excess water.
  - Creation of new Biodiversity Action Plan to allow nature to 'soak' up excess water.

**What were the costs/benefits?**

*Socially:* quality of life has improved, reduced levels of anxiety of flooding, the A361 will no longer need to be closed.

*Economically:* Cost £18.5m, but benefits of protecting are over £100m!

*Environmentally:* Small reservoir created from earth taken for embankments, new Biodiversity Action Plan has created new habitats, and floodplain protected for flooding.

River flooding might bring a lot of effects to an area. They are worse in LICs as the countries are unable to prepare, or protect. These impacts can be social, economic or environmental.

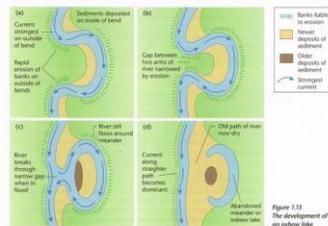
**Social:** loss of homes, death, loss of possessions etc.

**Economic:** Cost of repairs, loss of income from flooded farmland, loss of business, loss of jobs etc.

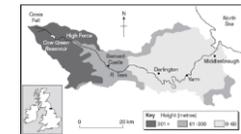
**Environmental:** Damaged habitats, destroyed land, contaminated water sources etc.



E	Reducing flooding
Rivers flooding can be caused by a number of factors. These could be human factors:	
Farming	
Urbanisation	
Deforestation	
Or physical factors:	
Weather and climate:	
High amounts of rainfall	
Steep land	

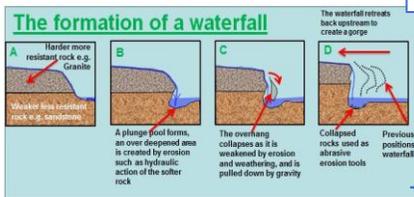
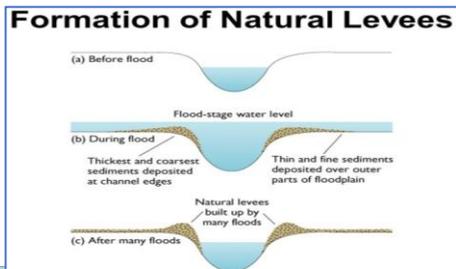


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Middle/lower course:

Upper course:



Banbury Floods: What has been done to reduce flooding?

Banbury is located in the Cotswolds, north of Oxford.

Impacts of flooding:

What were the costs/benefits?



- Allies - The alliance between Britain, the USA, the USSR and France
- Axis - The alliance that stood opposed to the allies made up of Germany, Japan and Italy
- Autocracy - A system of government by one person with absolute power
- Bolsheviks - The radical left-wing political group which seized control of the Russian government in 1917
- BEF - British Expeditionary Force
- Blitzkrieg – intense military campaign intended to bring a quick victory
- Collectivism – giving a group priority over an individual
- Communism - An economic and political system in which all property is state-owned
- Democracy - A political system that allows the people to vote on how the country is run
- Dictator - A single strong leader who can do what they want and has complete power
- Dictatorship – governed by a dictator
- Encircle - To surround an enemy army
- Evacuation – the action of leaving a place
- Fascism – a nationalistic right-wing system of government
- Hyperinflation – the rapid inflation of money
- Luffwaffe – German air force
- Lend-Lease - A scheme under which the USA lent or leased vital supplies to Britain during the war
- Morale – the confidence or enthusiasm of a group
- Pincer movement - A movement by two separate groups of troops to close in on an enemy from two different directions
- Propaganda - misleading information used to further a political cause
- Ration – fixed amount of goods allowed to each person during a time of shortage
- Red Army - Army of the Soviet Union
- Tariff - A tax paid on certain imports or exports
- Totalitarianism – a system of government that is run by a dictator and needs complete subservience to the state.
- Totalitarian - A form of rule in which the government or leader has unlimited power over all aspects of society
- Proletariat - Used by communists to describe the working class
- Tsar - The Russian emperor
- Collectivisation - The grouping together of farms to be owned by the state
- Industrialisation - The widescale development of industries in a country
- Operation Overlord - The allied military operation to liberate France from Nazi occupation
- Purge - To remove a group of people from an organisation
- Soviet Union - Or USSR, the new name for Russia under Communist control
- Fuhrer - Hitler's title from 1934, when he became the absolute ruler of Germany
- Police state - A country where the government uses the police to spy on the people and stamp out opposition
- Weimar Republic - The German democratic government established after WWI

## Year 9 Term 3 History Knowledge organiser: Topic: World War Two

Section B:	Dictatorships in Europe		What we are learning this term:			
<p><u>Stalin</u></p> <ul style="list-style-type: none"> <li>After the Revolution there was a Civil War in Russia</li> <li>From the Revolution and Civil War, Russia faced many problems, like worker unrest</li> <li>Lenin died in 1924, and by 1929 Stalin was in power and built a totalitarian state</li> <li>To solve the economic problems, Stalin introduced collectivisation</li> <li>The human cost of Stalin's policy was high, with millions dying from famine and many being forced into slave labour</li> </ul>	<p><u>Mussolini</u></p> <ul style="list-style-type: none"> <li>Italy joined the allies in 1915 during WW1 but failed to gain the territory it wanted and people in Italy were outraged.</li> <li>There was also a fear of communism growing in Italy following the revolution in Russia.</li> <li>From 1920, Fascist Squads worked to intimidate socialists, and they generally accepted Mussolini as their leader.</li> <li>By 1922, Mussolini was in power in Italy and was working to consolidate his dictatorship.</li> </ul>	<p><u>Hitler</u></p> <ul style="list-style-type: none"> <li>Germany was badly damaged by the Treaty of Versailles and many German people were not happy.</li> <li>There was a growing fear of communism in Germany following the revolution in Russia.</li> <li>There had been attempts by communists and fascists to overthrow the Weimar government (the Spartacist Revolt and the Munich Putsch).</li> <li>Increased support for the Nazis grew over the period of economic struggles in Weimar Germany, such as Hyperinflation.</li> <li>By the early 1930s, Hitler was working to consolidate his power as a dictator in Germany.</li> </ul>	<p><u>What we are learning this term:</u></p> <ul style="list-style-type: none"> <li>The Rise of Dictatorships in Europe</li> <li>How successful were the Allied forces at the start of the Second World War?</li> <li>How can 1942 be considered a turning point for the Allies in the Second World War?</li> <li>The Homefront: Britain and Germany</li> <li>How did the Allied forces win the Second World War?</li> </ul>			
<p><b>Section E: The Homefront</b></p> <p><u>Britain</u> From 1940, there were regular bombing by the Luftwaffe on British cities, known as the Blitz. Children were evacuated to the countryside during this period. Women worked factories and farming to maintain the supply of men to fight in the war. Rationing was introduced as trading was dangerous during wartime.</p> <p><u>Germany</u> Germany also faced the bombing of major cities by Allied forces, such as the bombing of Dresden. Rationing was also introduced in Germany. Propaganda was key in maintaining morale in Germany, but by 1943 the mood of the public began to change as the tide of war began to change.</p>			<p><b>Section C: The War Before 1941</b></p> <ul style="list-style-type: none"> <li>Operation Sichelschnitt in 1940 – the German war plan to invade France. They were successful and managed to capture Paris and encircle the Allied Forces in the North of France.</li> <li>Operation Dynamo – The mass evacuation of Allied forces from the North of France from Dunkirk following Operation Sichelschnitt. This resulted in the successful evacuation of over 338,000 soldiers from France.</li> <li>The Battle of Britain – After the Allied evacuation from Dunkirk, Hitler launched Operation Sealion, an attempt to invade Britain. The Royal Air Force (RAF) managed to stop the attempted invasion.</li> </ul> <p><b>Section D: The War by 1942</b></p> <ul style="list-style-type: none"> <li>Operation Barbarossa was launched in 1941 and was an attempt by Germany to invade the Soviet Union. This plan ultimately failed due to Germany using a weak military, having poor logistics – such as being unprepared for the Russian winter – and the failure at the Battle of Stalingrad. This also brought the USSR into the war on the side of the Allied forces.</li> <li>In December 1941, Japan bombed US naval forces at Pearl Harbour in Hawaii. Following the attack on Pearl Harbour, the USA entered the war on the side of the Allied forces.</li> <li>Germany now faced the potential of fighting a war on too fronts if there was a successful Allied invasion of Northern France.</li> </ul> <p><b>Section F: The War after 1942</b></p> <ul style="list-style-type: none"> <li>Operation Overlord – The successful Allied invasion of Northern France, through the use of co-ordinated land, sea and air forces. This began on 6<sup>th</sup> June 1944 with the Allied forces landing on the beaches of Normandy, also known as the D-Day landings.</li> <li>The Siege of Berlin – With Germany fighting a war on two fronts, the Allies and the USSR continued to push into Germany. On 20<sup>th</sup> April 1945, Soviet troops had seized Berlin and Nazi Germany surrendered, bringing an end to the war in Europe.</li> <li>On the 6<sup>th</sup> and 9<sup>th</sup> August 1945, two atomic bombs (nuclear weapons) were dropped on Japanese cities Hiroshima and Nagasaki by Allied forces. This brought the surrender of Japan and the end of the Second World War. This remains the only use of nuclear weapons in armed conflict.</li> </ul>			
<p><b>1917</b> The Russian Revolution- Bolsheviks seize control of Russia</p>	<p><b>1918</b> The signing of the armistice and the end of World War One</p>	<p><b>1919</b> Germany forced to sign The Treaty of Versailles</p>	<p><b>1920</b> The use of fascist squads by Mussolini</p>	<p><b>1922</b> Mussolini was in power in Italy</p>	<p><b>1923</b> The Munich Putsch Hyperinflation started in Germany</p>	<p><b>1924</b> Death of Lenin</p>
<p><b>1 September 1939</b> Hitler invades Poland</p>	<p><b>26 May – 4 June 1940</b> Dunkirk evacuation</p>	<p><b>22 June 1941</b> Hitler launches Operation Barbarossa</p>	<p><b>7 December 1941</b> Attack on Pearl Harbor</p>	<p><b>September 1942- January 1943</b> The Battle of Stalingrad</p>	<p><b>6 June 1944</b> D-day</p>	<p><b>8 May 1945</b> End of the war in Europe</p>

## Year 9 Term 3 History Knowledge organiser: Topic: World War Two

<b>Section B:</b>		<b>Dictatorships in Europe</b>					
<u>Stalin</u>		<u>Mussolini</u>		<u>Hitler</u>			
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				<p><b><u>Section F: The War after 1942</u></b></p>			
<b>Section E: The Homefront</b>							
<u>Britain</u>		<u>Germany</u>					
<b>1917</b>	<b>1918</b>	<b>1919</b>	<b>1920</b>	<b>1922</b>	<b>1923</b>	<b>1924</b>	
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<b>What we are learning this term:</b>	
A. Key words B. Religion and equality C. Racism D. Gender	E. LGBTQ F. Disability
<b>A.</b>	<b>Can you define these key words?</b>
<b>Key words</b>	<b>Key definition</b>
Equality	The state of being equal in status, rights or opportunities
Discrimination	The unequal treatment of different groups of people based on race, age, sex etc.
Prejudice	A negative opinion about someone before knowing them based on their belonging to a certain group
Privilege	A special right or advantage given to a person or group
Racism	Discriminating against or preferring someone based on their race
Liberation	The act of setting someone free from slavery or imprisonment
Feminism	A movement fighting for women's rights
Status	A person's position in society
Rights	A moral or legal entitlement to something
Persecution	Systematic mistreatment of an individual or group by another individual or group due to race, religion, gender, sexuality, etc.
Disability	A physical or mental condition that limits a person's movements, senses or activities
Diversity	The practice or quality of including or involving a range of different people
Justice	The role of the judge is to make sure that justice is done

<b>F.</b>	<b>Disability</b>
	<ul style="list-style-type: none"> <li>UK – Disability discrimination is illegal (being treated badly or put at a disadvantage due to disability)</li> <li>Bible – Jesus went out of his way to heal the sick and help disabled people</li> <li>Qur'an – encourages good treatment and giving help to those who are disabled</li> <li>Buddhism and Hinduism – disability is not a punishment from God, comes from bad karma</li> </ul>

<b>B</b>	<b>Equality and religion</b>
	<ul style="list-style-type: none"> <li>People experience prejudice due to sex, disability, race, sexual orientation</li> <li>Equality is important to make society fair</li> <li>The Equality Act 2010 prohibits employers, educators and service providers from discriminating against protected characteristics (race, disability, sex)</li> <li>Christianity – “you are all one in Christ”</li> <li>Hinduism – the Divine is present in all human beings</li> <li>Islam – the only way one human is better than another is through goodness</li> </ul>

<b>C</b>	<b>Racism</b>
	<ul style="list-style-type: none"> <li>Islam – “There is no superiority... except on the basis of righteousness”</li> <li>Christianity – “There is neither Jew nor Greek, male nor female, you are all one in Christ”</li> <li>Hinduism – “There is none high or low amongst you”</li> <li>There are some examples in scripture of slavery – in The Bible, it says “slaves obey your masters” and some use this to justify actions e.g. Ku Klux Klan.</li> <li>Quakers are Christians who called for the liberation of Slaves</li> <li>Martin Luther King was inspired by Christianity to campaign for civil rights using non-violent methods</li> <li>Malcolm X was important in the fight for equality</li> </ul>

<b>D</b>	<b>Gender</b>		
	<table border="0"> <tr> <td> <p>Gender equality is equal access to resources and opportunities regardless of gender</p> <ul style="list-style-type: none"> <li>Christianity – in Genesis it says God made men and women differently “Eve was created by God by taking her from the rib of Adam”</li> <li>Traditional gender roles e.g. woman caring for home are found in many religions</li> <li>Islam – some people claim the Qur'an justifies violence “Make clear to them the matter” BUT “the Messenger of God never struck a woman, child or a servant”</li> </ul> </td> <td> <p>Women in worship</p> <ul style="list-style-type: none"> <li>Catholic church does not allow women into priesthood</li> <li>Men and women worship in the Mosque separately from men</li> <li>Some mosques are now female led only, and the Catholic Women's Ordination campaign for women to have the right to be ordained</li> </ul> </td> </tr> </table>	<p>Gender equality is equal access to resources and opportunities regardless of gender</p> <ul style="list-style-type: none"> <li>Christianity – in Genesis it says God made men and women differently “Eve was created by God by taking her from the rib of Adam”</li> <li>Traditional gender roles e.g. woman caring for home are found in many religions</li> <li>Islam – some people claim the Qur'an justifies violence “Make clear to them the matter” BUT “the Messenger of God never struck a woman, child or a servant”</li> </ul>	<p>Women in worship</p> <ul style="list-style-type: none"> <li>Catholic church does not allow women into priesthood</li> <li>Men and women worship in the Mosque separately from men</li> <li>Some mosques are now female led only, and the Catholic Women's Ordination campaign for women to have the right to be ordained</li> </ul>
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<b>E.</b>	<b>LGBTQ</b>
	<ul style="list-style-type: none"> <li>Homosexuality was illegal in the UK until 1967</li> <li>Members of the LGBTQ community have faced persecution in the UK and abroad e.g. Russia and Cameroon have seen an increase in violence</li> <li>Christianity – “God created man in His image... male and female He created them”</li> <li>Christianity – “You shall not lie with a male as with a woman; it is an abomination”</li> <li>Buddhism, Sikhism and Hinduism do not mention homosexuality</li> <li>Dalai Lama – “For a Buddhist, a relationship between two men is wrong”</li> <li>Catholic – Welcomes all those who are homosexual but invites them to live a life of celibacy</li> </ul>



<b>What we are learning this term:</b>	
A. Key words B. Religion and equality C. Racism D. Gender	E. LGBTQ F. Disability
<b>A.</b>	<b>Can you define these key words?</b>
<b>Key words</b>	<b>Key definition</b>
Equality	
Discrimination	
Prejudice	
Privilege	
Racism	
Liberation	
Feminism	
Status	
Rights	
Persecution	
Disability	
Diversity	
Justice	

<b>B</b>	<b>Equality and religion</b>

<b>C</b>	<b>Racism</b>

<b>D</b>	<b>Gender</b>

<b>E.</b>	<b>LGBTQ</b>

<b>F</b>	<b>Disability</b>

<b>What we are learning this term:</b>
A. Ines Kouidis B. Michael Volpicelli C. Techniques and skills



<b>A.</b>	<b>How has Ines Kouidis created this image?</b>
1	What materials has she used? Ines uses a range of scrap materials including envelopes, scrap paper, newspapers, old magazines and cardboard.
2	How has she torn the material? Ines doesn't use scissors often, but more she tears the material so to get a rough edge to her work. A type of uneven and rustic approach to her outcomes.
3	What impact do smaller pieces of material have? She is very particular about the size of pieces she is collaging. Smaller and more detailed pieces can form darker areas and shadows. Lagers and lighter pieces are the highlights. The smaller the pieces, the longer it will take her- however the more intricate it will become.
4	Who does she make collages of? She usually makes collages of famous people in history, who might be dead or alive today. These people influence her making and have had an impact on Ines' live. They are her main inspiration.



<b>C</b>	<b>How to make a collage.</b>
Collage: is a form of art by cutting and ripping paper to create interesting artworks.	
Steps for making your collage:	
<ol style="list-style-type: none"> <li>1. Start by having an image as a source, something you will use as a guide to follow or for inspiration</li> <li>2. Use a range of different types of paper, such as; scrap paper, newspaper, card, coloured paper.</li> <li>3. Tear the paper to get a jagged edge, cut with scissors to get a straight edge.</li> <li>4. The smaller the pieces of paper, the more detailed the outcome.</li> <li>5. Darker paper in more shaded areas. Lighter paper in highlighted areas.</li> <li>6. Add additional details on the face and in the background, following the same technique as step 2 and 3.</li> </ol>	

<b>What each tool is used for:</b>	
Cutting mat	To protect the table from damage.
Glue stick	To cleanly stick the shapes onto paper.

	<b>Looking at the image drawn by Michael Vollpicelli, how does he create.....</b>
<ol style="list-style-type: none"> <li>1. Darker areas? Michael creates darker areas on the portrait by doing smaller words that are closer to one another to create shadowing.</li> <li>2. Lighter areas? Words further apart and larger will be lighter</li> </ol>	



<b>F.</b>	<b>Keywords</b>
Appropriate	Suitable for a particular person, place or condition
Highlight	An area of lightness in an image
Shadow	When an objector artwork intercepts light and causes an obscurity
intricate	Having many complexly arranged element
relevant	Having a bearing or connection with the subject or matter

<b>C. Name the following equipment.</b>		
		
Sharpie or permanent marker	Sheets of acetate	Masking tape

<b>B.</b>	<b>Answer the following questions about Michaels work and how he works.</b>
What part of the body does Michael focus in drawing?	Michael focuses in on the face and facial features. This is called portraiture.
What effect do the larger words make?	The larger words make highlighted areas on the face
How would you describe his work?	Meaningful, cultural identities, typography, portrait,
What is significant about the words he uses to make up the drawing?	The words he uses are meaningful to that particular person. They might be words that describe them, or what they do, what impact they have or their personality.



<b>B.</b>	<b>About the work of artist Michael Volpicelli</b>
WHAT?	Michael creates word art using a variety of sizes to make up a portrait of a person.
HOW?	Use uses a fine permanent marker to draw with words. Larger words create a highlight and smaller more scrambled words create shadows and darkness.
WHY?	Michael draws people using words he thinks describes them. Kind and thoughtful words to spread the kindness.

**What we are learning this term:**

A. Ines Kouidis  
 B. Michael Volpicelli  
 C. Techniques and skills



**A. How has Ines Kouidis created this image?**

1. What materials has she used?  
 .....  
 .....  
 .....  
 2. ....  
 .....  
 .....  
 How has she torn the material.....  
 .....  
 .....  
 .....  
 4. What impact do smaller pieces of material have?  
 .....  
 .....  
 .....  
 .....  
 Who does she make collages of?  
 .....  
 .....



**C How to make a collage.**

Collage:

Steps for making your collage:

- 1.
- 2.
- 3.
- 4.
- 5.

What each tool is used for:

Magazines	.
Glue stick	

**B. Answer the following questions about Michaels work and how he works.**

What part of the body does Michael focus in drawing?	
What effect do the larger words make?	
How would you describe his work?	
What is significant about the words he uses to make up the drawing?	

**F. Keywords**

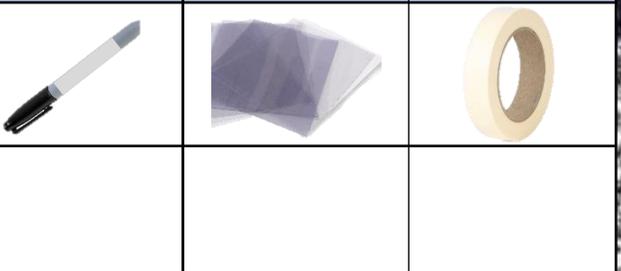
Appropriate	
Highlight	
Shadow	
intricate	
relevant	

**Looking at the image drawn by Michael Vollpicelli, how does he create.....**

1. Darker areas?
2. Lighter areas?



**C. Name the following equipment.**



**B. About the work of artist Michael Volpicelli**

WHAT?	
HOW?	
WHY?	



What we are learning this term:

A. Workshop Tools    B. Materials    C. Key concepts    D. Key Words    E. Designer research

A. Workshop Tools						
Steel Rule	Tri-Square	Laser Cutter	Mitre square	Tenon Saw	Pillar Drill	Bandfacer

B. Materials	
<b>Timbers</b> come from <b>trees</b>	
	<p><b>Scots pine</b> – which you used for your box walls – is a <b>softwood</b></p> <p><b>Softwoods</b> come in planks and boards</p>
<b>Manufactured Boards</b> come from <b>wood pulp</b>	
	<p><b>Plywood</b> – which you used as your base and Lid– is a <b>manufactured board</b></p> <p><b>Manufactured Boards</b> come in sheets</p>
<b>Polymers</b> come from <b>crude oil</b>	
	<p><b>Acrylic</b> – which you used as your lid decoration for your trinket box – is a <b>polymer</b></p> <p><b>Polymers</b> come in sheets, graduals and filament</p>

C. Key concepts	
<b>Designers research and investigate resources and materials to help inspire ideas.</b>	
<b>Computer-aided design (CAD)</b> is the process of using <b>computer software</b> to create <b>2D or 3D designs</b> .	
Advantages	Disadvantages
Designs can be <b>created, saved</b> and <b>edited</b> quickly, saving time	CAD takes a <b>long time to learn</b>
Designs or parts of design can be easily viewed from <b>different angles, copied</b> or <b>repeated</b>	Software can be <b>very expensive</b>
CAD is <b>very accurate</b>	CAD files can become <b>corrupted</b> or <b>lost</b>
<p><b>Hazards</b> – these are something that could potentially harm you. There are many such as:</p> <ul style="list-style-type: none"> <li>• Bags and chairs acting as a trip hazard</li> <li>• Untucked shirts, baggy clothes and untied hair are common things to get caught on tools and machines.</li> <li>• Drinks and liquids, if spilled can become slip hazards</li> </ul>	
<p><b>Preventative measures</b> – rules or equipment put in place to minimize the likelihood of a hazard occurring.</p> <ul style="list-style-type: none"> <li>• No food and drink in workshops</li> <li>• Bags and chairs stored neatly in designated areas</li> <li>• Long hair must be tied up and correct uniform worn.</li> </ul>	
<p><b>Personal protective equipment (PPE)</b> The three used most often are aprons, safety goggles and ear defenders.</p>	

D.	Key Words
<b>Preventative measure</b>	rules or equipment put in place to minimize the likelihood of a hazard occurring
<b>Tolerance</b> $\pm$	The margin of error allowed for a dimension without negatively impacting a product
<b>Depth stop</b>	A part on a tool which is used to help cut or drill a specific depth.
<b>Assemble</b>	Creating a product by bringing several components together.

E. Morag Myerscough	
	<p>Morag's mantra is 'make happy those who are near and those who are far will come'. Born and Bred, Holloway, London, Morag has always lived in the city and has been fascinated by how colour pattern and words can change urban environments and peoples' perceptions of spaces into places.</p>
<p><b>Key features:</b> Crazy patterns, words of affirmation, shapes, warm, inviting, contrast! How colour, pattern and words can change urban environments and people's perspective of the space</p>	
<p><b>Shapes:</b> Very geometric, rectangles, triangles, squares, circles and arcs</p>	
<p><b>Colours:</b> Bright, bold, contrasting colours, accents and outlines of black and white</p>	



What we are learning this term:

A. Workshop Tools    B. Materials    C. Key concepts    D. Key Words    E. Evaluating Work

A. Workshop Tools						

B. Materials	
Timbers come from _____	
	<p><b>Scots pine</b> – which you used for your box walls – is a <b>softwood</b></p> <p><b>Softwoods</b> come in _____</p>
Manufactured Boards come _____	
	<p><b>Plywood</b> – which you used as your base and Lid– is a <b>manufactured board</b></p> <p><b>Manufactured Boards</b> come in _____</p>
Polymers come from _____	
	<p><b>Acrylic</b> – which you used as your lid decoration for your trinket box – is a <b>polymer</b></p> <p><b>Polymers</b> come in _____</p>

C. Key concepts	
Designers research and investigate _____	
_____ (CAD) is the process of using computer _____.	
Advantages	Disadvantages
<p><b>Hazards</b> – these are something that could potentially harm you. There are many such as:</p> <p>_____</p> <p>_____</p> <p>_____</p>	
<p><b>Preventative measures</b> – rules put in place to minimize the likelihood of a hazard occurring.</p> <p>_____</p> <p>_____</p> <p>_____</p>	
<p><b>Personal protective equipment (PPE)</b> The three used most often are _____</p> <p>_____</p> <p>_____</p>	

D. Key Words	
Prototype	
Tolerance $\pm$	
Depth stop	
Assemble	

E. Morag Myerscough	
	<p>Morag's mantra is 'make happy those who are near and those who are far will come'. Born and Bred, Holloway, London, Morag has always lived in the city and has been fascinated by _____</p> <p>_____</p> <p>_____</p>
<p><b>Key features:</b></p> <p> </p> <p> </p>	
<p><b>Shapes:</b></p> <p> </p>	
<p><b>Colours:</b></p> <p> </p>	

## Y9 Food technology

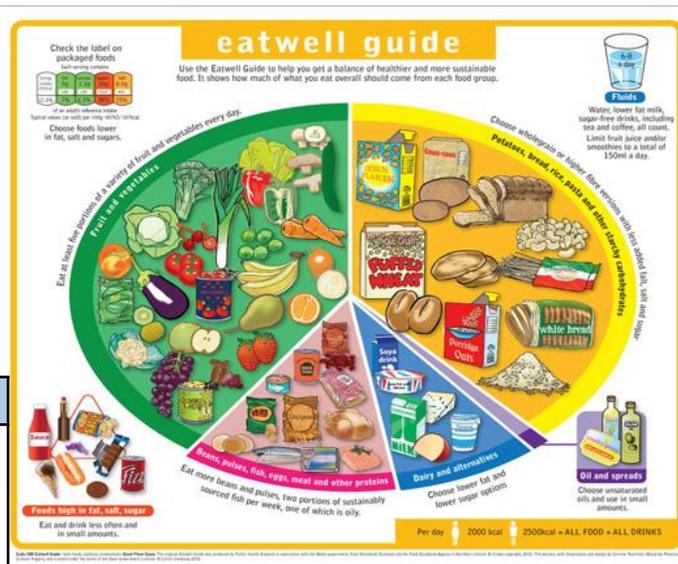
### What we are learning this term:

1. Health, safety and hygiene in the kitchen
2. The Eatwell guide and nutrients
3. Storing food safely
4. Practical skills

A.	What are the nutrients required in the diet?
Carbohydrates	To give the body energy e.g bread.
Protein	To grow and repair the body, and to give energy e.g eggs.
Fats	To insulate your body, give you energy, and protect your organs i.e butter.
Vitamins	For general body health and function i.e carrots for eyesight.
Minerals	For general body health and function i.e iron to make blood cells.

### B. What are the 5 different sections of the Eatwell plate?

- 1 **Fruit and Vegetables** – provides minerals, vitamins & fibre
- 2 **Carbohydrates** – provides carbs and fibre
- 3 **Protein** - provides protein, omega 3, some vitamins
- 4 **Dairy** - provides vitamins, minerals (calcium)
- 5 **Fats and Oils**



E.	Keywords
Hygiene	A method of keeping yourself and equipment clean
Cross contamination	The transfer of contaminants onto food through either the hands, the equipment or the surfaces. Causes food poisoning.
Spoilage	When food becomes unsafe to eat i.e rot, mould.
Perishable food	Food that spoils if not kept in the fridge or freezer e.g ham.
Fibre	Foods that keep your digestive system healthy and avoid constipation.
Allergen	A substance (sometimes food) that causes an immune system response that can be fatal i.e throat swelling up. Nuts are common allergens.
Intolerance	When the body cannot digest a food and rejects it i.e vomiting, diarrhea. Many people are lactose intolerant (milk intolerance).
Coeliac	When someone cannot eat gluten (wheat), similar to an intolerance but more dangerous.
Vegan	When someone does not eat anything that comes from an animal including eggs, milk, honey.

### c. Storing food safely

**Perishable** foods should be stored out of the **temperature danger zone** to reduce the risk of **food poisoning**. Hot foods should be kept above 63°C and cold foods should be kept below 5°C.

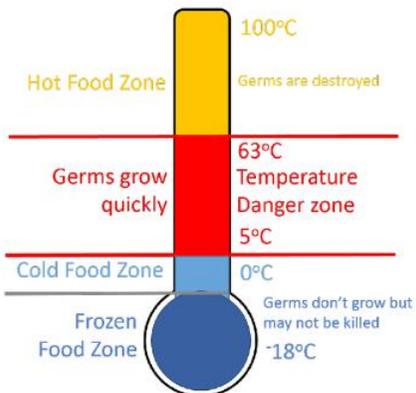


Image: TAFE NSW

### c. Food related waste

#### Reasons for wasting food:

- Confusion over best before dates and other date marks
- Too much food was cooked
- Preparing food incorrectly
- Food is spoiled

#### Reducing Waste:

- Plan meals and correct portion sizes
- Correctly storing food and paying attention to use by dates
- Use up contents of your fridge before buying more food
- Use leftovers in meals the day after or freeze them
- Use the whole food e.g. bones for stock
- Choose products with recyclable packaging
- Bring your own shopping bags
- No single use plastic i.e straws
- Buy food loose i.e apples

### c. Influences on food choice

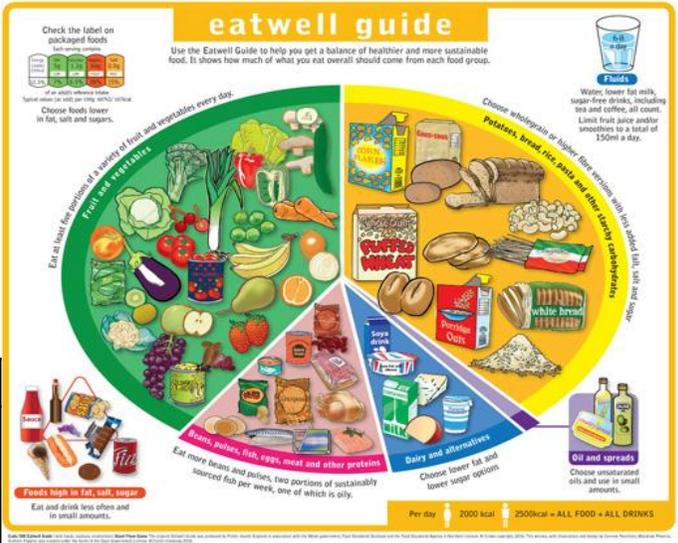
- A person's **physical activity level (PAL)**
- Whether they want to **eat healthily**
- The **cost** of the food vs their income
- Whether they are influenced by **peer pressure** or online trends
- Their cooking skills (**culinary skills**)
- Their **lifestyle** and how much time they have to cook/eat
- Whether they have rules in their **religion, culture or ethical rules**
- Whether the food is **available** in that season
- Whether they **enjoy** that food
- Whether there is a **special occasion** with special food

What we are learning this term:
<ol style="list-style-type: none"> <li>1. Health, safety and hygiene in the kitchen</li> <li>2. The Eatwell guide and nutrients</li> <li>3. Storing food safely</li> <li>4. Practical skills</li> </ol>

B	What are the 5 different sections of the Eatwell plate?
<ol style="list-style-type: none"> <li>1 <b>Fruit and Vegetables</b> – provides minerals, vitamins &amp; fibre</li> <li>2 <b>Carbohydrates</b> – provides carbs and fibre</li> <li>3 <b>Protein</b> - provides protein, omega 3, come vitamins</li> <li>4 <b>Dairy</b> - provides vitamins, minerals (calcium)</li> <li>5 <b>Fats and Oils</b></li> </ol>	

E.	Keywords
Hygiene	
Cross contamination	
Spoilage	
Perishable food	
Fibre	
Allergen	
Intolerance	
Coeliac	
Vegan	

A.	What are the nutrients required in the diet?
Carbohydrates	
Protein	
Fats	
Vitamins	
Minerals	



c.	Storing food safely
<p><b>Perishable</b> foods should be stored out of the <b>temperature danger zone</b> to reduce the risk of _____.</p> <p>Hot foods should be kept above _____C and cold foods should be kept below _____C.</p>	

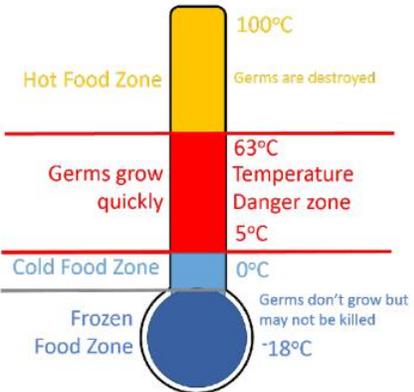


Image: TAFE NSW

c.	Food related waste
Reasons for wasting food:	Reducing Waste:

c.	Influences on food choice

# YEAR 9 GRAPHIC COMMUNICATION

## What are we learning this term?

A Logos	B Typography	C Computer skills	D Key words	E Evaluation
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### A | Logos

What is a logo?

A graphic design element that includes words and images, shapes, symbols or colour.

How does Alex Trochut design logos?

Alex Trochut collaborates with brands to create new catchy designs. He uses text and imagery to create visual art. The viewer first notices the imagery but looks closer to find a hidden message through typography.

### B | Typography

Draw your initials in the typographic style of designer Alex Trochut work



### C | Computer skills

What is the shortcut for copy?

Ctrl + C

What is the shortcut for paste?

Ctrl + V

What does this symbol stand for?



Photoshop

What does this symbol mean?



Cropping

### D | Key words

Merchandise	Branded products used to promote and sell a product
Combined Logo	A logo that uses both images and text
Photoshop	A software for editing photos and graphics. It is used for image editing, making illustrations or web design.
Photo Editing	The act of image and enhancement and manipulation

### E | Evaluation

Evaluation: To judge or give an opinion

Designers will evaluate their products to see what works well and what doesn't. This way they can make any improvements on their current designs to ensure a high-quality product.

**When writing an evaluation it is important to include the following three things:**

1. Positives – what works well
2. Negatives – what doesn't work well
3. Possible improvements – how could you make it better?

**For example:**

My tote bag looks great, the colours are bright which appeals to the audience of the festival. However, I have not designed a combined logo. One improvement I could make is to use images and text to create a combined logo.

# YEAR 9 GRAPHIC COMMUNICATION

## What are we learning this term?

A Logos	B Typography	C Computer skills	D Key words	E Evaluation
------------	-----------------	----------------------	----------------	-----------------

## D | Key words

Merchandise	
Combined Logo	
Photoshop	
Photo Editing	

## A | Logos

What is a logo?

How does Alex Trochut design logos?

## B | Typography

Please use pencil for the drawing of your design

## C | Computer skills

What is the shortcut for copy?

What is the shortcut for paste?

What does this symbol stand for?



What does this symbol mean?



## E | Evaluation

Evaluation: To judge or give an opinion

**When writing an evaluation it is important to include the following three things:**

1. Positives – what works well
2. Negatives – what doesn't work well
3. Possible improvements – how could you make it better?

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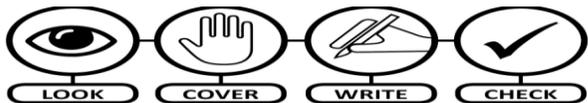
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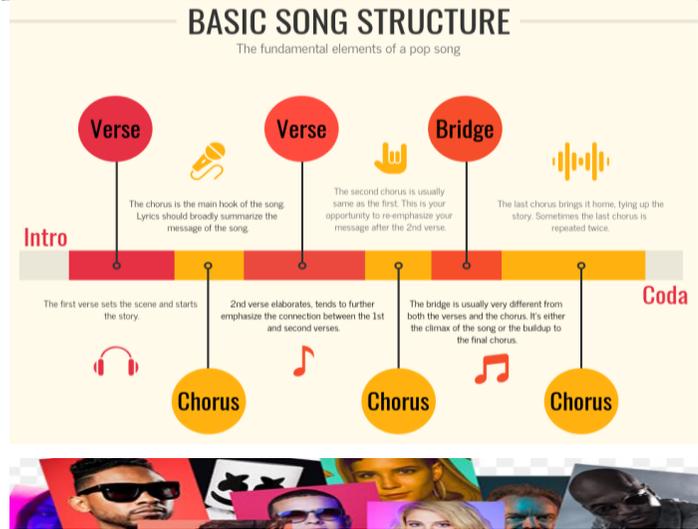


A	What we are learning about this term...
1	Basic Song Structure
2	How to write a perfect Evaluation
3	Playing an instrument / Chords / Melody
4	What are the music symbols – Note values
5	Keywords
6	How to read music - Treble clef and bass clef



B	Keywords
<b>Instrumental Break</b>	An <b>instrument section</b> during a song – no singing
<b>Lyrics</b>	The <b>words</b> of a song
<b>Verse</b>	A section of a song <b>telling the story</b> , followed by a chorus
<b>Chorus</b>	<b>Repeated idea</b> within a song, lyrics and music usually remain the same
<b>Bridge / Middle 8</b>	<b>Passage of music</b> that contrasts the <b>verse and chorus</b>
<b>Outro / Coda</b>	<b>Passage of music</b> that <b>brings the song to an end</b>
<b>Album</b>	A collection of <b>audio recordings</b>
<b>Arrangement</b>	<b>A rework of a musical composition</b> so that it can be played by different combinations of instruments
<b>Genre</b>	A <b>style</b> or category of <b>art, music, or literature</b>
<b>Cover Song</b>	<b>A performance of a song</b> by someone other than the original artist/band.

**C Instruments in popular music**



**D How to write a perfect Evaluation?**

1	Write a full sentence explaining what your musical performance or music composition was about
2	Explain what you were trying to communicate to an audience and how you did it
3	Pick out at least two moments that worked really well, using specific examples and say what you did that made them successful
4	Pick out one moment that you could make better. Explain why it needed improving and how you would make it better if you did your performance again
5	Sum up your evaluation and discuss one thing that you will take forward into your next work

**E Basic Note Values - Recap**

Note	Name	Beats	Rest	Note	Name	Beats	Rest
	Semibreve, Whole Note	4 beats			Dotted Semibreve, Dotted Whole Note	6 beats	
	Minim, Half Note	2 beats			Dotted Minim, Dotted Half Note	3 beats	
	Crotchet, Quarter Note	1 beat			Dotted Crotchet, Dotted Quarter Note	1½ beats	
	Quaver, Eighth Note	1/2 beat			Dotted Quaver, Dotted Eighth Note	¾ beat	

**F How to read music – treble clef and Bass Clef**

**TREBLE LINES: E G B D F**      **TREBLE SPACES: F A C E**

**BASS LINES: G B D F A**      **BASS SPACES: A C E G**

**G Describing music – MAD T SHIRT**

M	A	D	T	S	H	I	R	T
<b>Melody</b>	<b>Articulation</b>	<b>Dynamics</b>	<b>Texture</b>	<b>Structure</b>	<b>Harmony/Tonality</b>	<b>Instruments</b>	<b>Rhythm</b>	<b>Tempo</b>
The tune	How notes are played	Loud/quiet and any other volume changes	Layers of sound / how they fit together	The sections and organising	Chords used / the mood	Types of instruments heard	Pattern of notes	The speed



## Drama – Year 9 Term 3- Noughts and Crosses- Malorie Blackman

Noughts and Crosses is set in a fictional dystopia. It is a society filled with racism and prejudice, where people with black skin are seen as the 'ruling' class. Noughts and Crosses features two central characters named Callum and Sephy. Sephy is black and is a part of the 'Cross' society whereas Callum is white and is part of the 'Nought' society. The two characters grow up together as friends, when Callum's mother works for Sephy's family. However, in a story reminiscent of Romeo and Juliet, their friendship faces difficulty as they grow older and Callum joins Sephy's school. Relationships between Noughts and Crosses are frowned upon, and so begins an emotional and tumultuous story of friendship, love, betrayal and power. Callum's older brother and father join a terrorist group called 'The Liberation Militia' – a group, using any means possible, to highlight the plight of the Noughts. When Callum and Sephy get caught up in its goings on, our characters' lives change forever. Callum and Sephy are separated and their lives take different paths. However, Callum's brother Jude is determined to use Sephy and her father's powerful political influence to change things and Sephy becomes the target of an elaborate kidnap plot by the Liberation Militia. We are left wondering if Callum has betrayed her or whether they will finally be together. When Sephy becomes pregnant, Callum is accused of rape and sentenced to death.

### Characters

- Persephone Hadley: Nicknamed Sephy, the daughter of a powerful cross, Kamal Hadley.
- Callum McGregor: A Nought who is best friends with Sephy. Kamal Hadley: A powerful, avaricious cross politician who will do anything to gain more power and influence. He is the father of Sephy and Minerva
- Jasmine Hadley: Sephy and Minerva's mother, who became an alcoholic.
- Minerva Hadley: Sephy's older sister.
- Ryan McGregor: Callum's father.
- Meggie McGregor: Callum's mother, who was Sephy's 'nanny' when younger.
- Lynette McGregor: Callum's older sister, who has a mental health condition after an attack.
- Jude McGregor: Callum's determined and outspoken older brother

### Themes

- racism • prejudice • forbidden relationships
- terrorism • conflict
- courage • violence
- betrayal

### Techniques in this unit

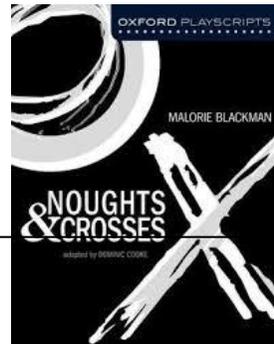
- Dramatic intentions- the effect you want to leave on your audience. What do you want them to think and feel?
- Proxemics- the use of space/distance between characters on stage.
- Physical Theatre- a style of performance where physical movement is the primary method of storytelling.
- Split staging- Where two or more scenes are performed on stage at the same time.

The Apartheid law-

The **system of racial segregation and oppression in South Africa** known as apartheid was implemented and enforced by many acts and other law. This legislation served to institutionalize racial discrimination and the dominance by white people over people of other races.

### Questions-

Who are the Liberation Militia? What is the Apartheid Law?



## Drama – Year 9 Term 3- Noughts and Crosses- Malorie Blackman

What do you know about the play?

### Characters

- Persephone Hadley: Nicknamed Sephy, the daughter of a powerful cross, Kamal Hadley.
- Callum McGregor: A Nought who is best friends with Sephy. Kamal Hadley: A powerful, avaricious cross politician who will do anything to gain more power and influence. He is the father of Sephy and Minerva
- Jasmine Hadley: Sephy and Minerva's mother, who became an alcoholic.
- Minerva Hadley: Sephy's older sister.
- Ryan McGregor: Callum's father.
- Meggie McGregor: Callum's mother, who was Sephy's 'nanny' when younger.
- Lynette McGregor: Callum's older sister, who has a mental health condition after an attack.
- Jude McGregor: Callum's determined and outspoken older brother

### Themes- How many can you remember?

### Techniques in this unit- write your own definition

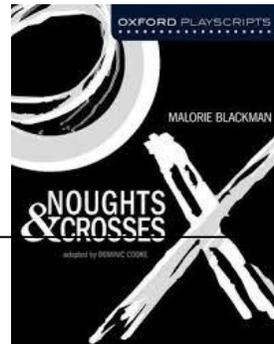
- Dramatic intentions-
- Proxemics-
- Physical Theatre-
- Split staging-

The Apartheid law-

The **system of racial segregation and oppression in South Africa** known as apartheid was implemented and enforced by many acts and other law. This legislation served to institutionalize racial discrimination and the dominance by white people over people of other races.

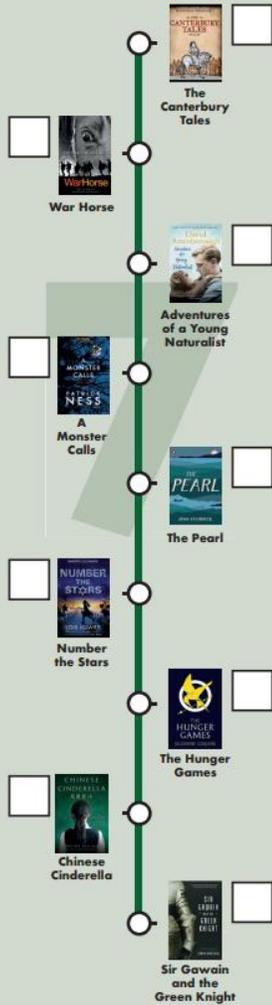
### Questions-

Who are the Liberation Militia? What is the Apartheid Law?



# SWINDON ACADEMY READING CANON

## Year 7



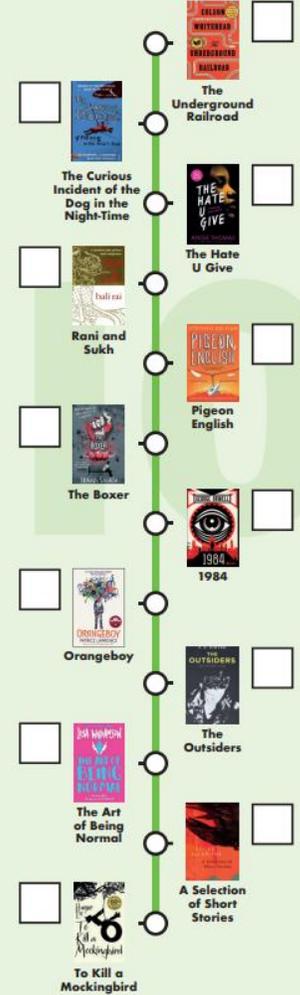
## Year 8



## Year 9



## Year 10



#ReadingisPower