



Year 7 | Term 1 Homework



Homework Schedule

Your homework will consist of:

- Knowledge Organiser with **five questions** this should take between 15-20 minutes. Try your best!
- TT Rockstars and Reading for 15 minutes

Subject	Page	Homework is set on:
English	6-9	Monday
Maths	10-11	Tuesday
Science	12-18	Monday

When is week A/B

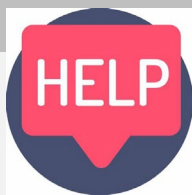
Week	Set week Commencing	Due week commencing
Week 1- practice homework at tutor time	—	Practice one is not checked by your teachers
Week 2- practice homework at tutor time	—	Practice one is not checked by your teachers
Week 3	21/09/26	28/09/26
Week 4	28/09/26	05/10/26
Week 5	05/10/26	12/10/26
Week 6	12/10/26	19/10/26

We all make exceptional things happen everyday

Academically | Professionally | Socially | Personally | Within the Community

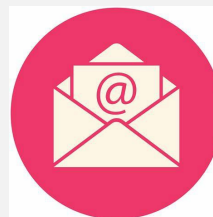


Need help with Homework?



- 1) **Class Teacher:** Speak to your class teacher, they will be able to help you if you are unsure. Try your best and don't worry if you do not complete everything.
- 2) **Tutor:** If you are still unsure, speak with your tutor. Especially, If you have lost equipment.
- 3) **Year Team:** Once you have contacted your teacher and tutor and still need help, then contact your Year team.

Struggling with the task: You can email the Curriculum Leaders below:



	Email		Email
English	hannah.powell-bond@clf.uk	History	Jenny.Chapman@clf.uk
Maths	David.Busby@clf.uk	Geography	emilia.fuorvito@clf.uk
Science	timothy.sperring@clf.uk	RE	emilia.fuorvito@clf.uk
PE	Victoria.Payton@clf.uk	French / Spanish	Laura.miles@clf.uk
Tech/Computing	Naomi.Soper@clf.uk Martin.Wignall@clf.uk	Music	drew.salida@clf.uk
Art	kealy.darby@clf.uk	PSHE	amelia.perry1@clf.uk
Drama	Joanne.Ayre@clf.uk	Year Team	BBAYear7team@clf.uk



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How to complete my homework

You will
need



Homework book



Green and Red Pen



Optional: Timer: Set
for 20 minutes

Instructions: How to complete my homework

1. For each homework you will be asked to look at a particular section of your Knowledge Organiser. Set a timer for **20 minutes**.



2. **Read** a small section of the Knowledge Organiser, your teacher will tell you the key term numbers to learn for your homework.



3. **Cover up** the information so you are unable to read/see it.



4. **Write:** In your red homework book, Write what you can remember. This should include both the Key term and definition.



5. **Check:** Check the Knowledge Organiser to see if you got the key term and definitions correct. Correct any mistakes using a green pen

6. **Complete** the other knowledge questions. Please stop if you run out of time.

How to present my homework book

1. Title with the **Subject name and due date**

13/09/2024

Science H/W – Due 15/09/2024

1. **Base:** A substance with a PH **between 8-14**
Alkali: A water soluble **soluble base**.

2. **Look, cover, write & check** the **key terms and definitions** identified by your teacher. Try your best.

2. PH1 is the strongest acid

3. Indicators help us categorise substances such as alkaline, acids or **neutral**.

3. Answer the questions, **using full sentences**. Self-correcting using a **green pen**.

Subject	Additional Tasks	
English	You should read for 15 minutes a day and record this in your reading log provided by your English teacher.	
Maths	 TT Rockstars: Times Tables Rock Stars is a fun and challenging programme designed to help you master the times tables. 5 to 15 minutes practice a day, Ask your Maths teacher or tutor if you require a new log in.	To help you remember write down your: Username: Password:



Topics	Some Places More Than Others	Harlem Renaissance Poetry	I Come From by Dean Atta	Malala Yousafzai
Summary	Main Character: Amara Baker Setting: Primarily Harlem, New York City Plot: Amara Baker travels from her home in Beaverton, Oregon, to Harlem, New York, to meet her father's side of the family for the first time. She learns about her family history and heritage while dealing with personal growth and family dynamics.	Period: 1920s to 1930s Location: Harlem, New York City Significance: A cultural revival of African American music, dance, art, fashion, literature, theater, and politics.	Dean Atta: A British poet known for his work addressing issues of identity, race, and gender.	Date: December 10, 2014 Event: Nobel Peace Prize acceptance ceremony# Background: Malala Yousafzai was awarded the Nobel Peace Prize for her struggle against the suppression of children and young people and for the right of all children to education.
Further information	Amara Baker: Protagonist, a curious and determined young girl. Dad (Malcolm Baker): Amara's father, who has a strained relationship with his own father. Grandpa Earl: Amara's grandfather, who she meets in Harlem. Mom (Mrs. Baker): Amara's supportive and understanding mother.	Langston Hughes: Known for his insightful, colorful portrayals of black life in America from the twenties through the sixties. Claude McKay: His works often address racial and political issues. Famous poems include "If We Must Die" and "America."	Structure: The poem is written in free verse, allowing the poet to explore his identity fluidly. Imagery: Uses vivid imagery to paint a picture of his background and experiences. Tone: Reflective and celebratory of the poet's heritage.	Purpose: To inspire and advocate for global education and equality. Style: Powerful and persuasive, using personal anecdotes and universal truths. Impact: Highlights the global issue of education inequality and calls for collective action
Key words	Family: The importance of family connections and understanding one's heritage. Identity: Discovering and understanding one's identity through family history. Culture: The significance of cultural heritage and African American history.	Racial Pride: Celebrating African American culture and heritage. Resistance: Responding to racial prejudice and inequality. Identity: Exploring what it means to be African American	Identity: Understanding and embracing one's roots. Heritage: The importance of cultural and familial background. Pride: Taking pride in one's origins and experiences.	Education: The right of every child to receive an education. Courage: Standing up against oppression and violence. Equality: The importance of gender equality and women's rights
Key quotes	"I've learned that family isn't always about the people you see every day." "Harlem is more than just a place; it's a feeling, a rhythm, a history."	Langston Hughes: "What happens to a dream deferred? Does it dry up like a raisin in the sun?" Claude McKay: "If we must die—let it not be like hogs."	"I come from shepherd's pie and Sunday roast." "I come from a home that was broken and mended."	"I tell my story not because it is unique, but because it is the story of many girls." "One child, one teacher, one book, one pen can change the world."



	Vocabulary	Definition		Vocabulary	Definition
1	Identity	The things that make you who you are.	8	Resistance	To attack or fight back against people who have attacked you.
2	Heritage	The qualities, traditions or features of life that have existed over many generations.	9	Consumerism	The belief that it is good to buy and use a lot of goods.
3	Imagery	When a writer uses descriptive language to create a image in the mind of the reader.	10	Imperative	Something that is extremely important.
4	Protagonist	The main person in a novel or play.	11	Anaphora	A phrase that is repeated three times at the start of clauses.
5	Rhetoric	The skill or art of using language effectively.	12	Consumption	The act of buying and using things.
6	Prejudice	Disliking a particular group of people or things for an unfair reason.	13	Equality	The same status, rights and responsibilities for all the members of a society, group or family.
7	Renaissance	Something that becomes popular or successful again after a time when people were not interested in it.	14	Aspiration	Someone's desire to achieve things.

**Instructions:**

1. For each homework, you will be asked to look at a **particular section of your Knowledge Organiser**, use the **knowledge organiser to help you answer the questions using full sentences.**
2. Each task should take 20 minutes, Set a timer and **stop when the time runs out.**

Homework	Due 	Task:
<u>Practice homework for tutor time</u>		1. Who is the main character in "Some Places More Than Others"? 2. Where does Amara Baker travel to meet her father's side of the family? 3. What city does Amara Baker visit in the story? 4. What historical period does the Harlem Renaissance refer to? 5. What is significant about the Harlem Renaissance?
<u>Practice homework for tutor time</u>		1. Who is Dean Atta? 2. On what date did Malala Yousafzai accept the Nobel Peace Prize? 3. For what reason was Malala Yousafzai awarded the Nobel Peace Prize? 4. What is the relationship between Amara and Malcolm Baker? 5. Who is Grandpa Earl in the story?
Week 3 homework		1. What does Amara learn about during her visit to Harlem? 2. Name one famous poem by Langston Hughes. 3. What themes are commonly found in Claude McKay's poetry? 4. What style of verse does Dean Atta use in "I Come From"? 5. What is the tone of "I Come From" by Dean Atta?

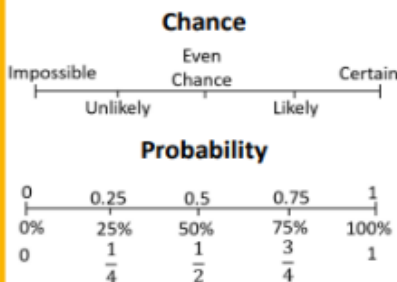
**Instructions:**

1. For each homework, you will be asked to look at a **particular section of your Knowledge Organiser**, use the **knowledge organiser to help you answer the questions using full sentences.**
2. Each task should take 20 minutes, Set a timer and **stop when the time runs out.**

Homework	Due 	Task:
Week 4 homework		1. What is the main purpose of Malala Yousafzai's speeches? 2. What does the document highlight about education inequality? 3. What is a key theme related to family in the Knowledge Organiser? 4. Write out the definition of identity in your own words? 5. Write out the definition of heritage in your own words?
Week 5 homework		1. Why do you think racial pride important? 2. Write out the definition of resistance? 3. What is one key quote from the knowledge organiser about family? 4. How does the knowledge organiser describe Harlem? 5. What happens to a dream deferred, according to Langston Hughes?
Week 6 homework		1. What is the meaning of "imperative"? 2. Why do you think equality is important? 3. What is an aspiration? 4. Why might Malala have been a victim of prejudice? 5. What is anaphora?

Probability

Key Concept



Probabilities can be written as:

- Fractions
- Decimals
- Percentages

Tip

Probabilities always add up to 1.

1) Key Terms

Probability: The chance of something happening as a numerical value.

Impossible: The outcome cannot happen.

Certain: The outcome will definitely happen.

Even chance: There are two different outcomes each with the same chance of happening.

Expectation: The amount of times you expect an outcome to happen based on probability.

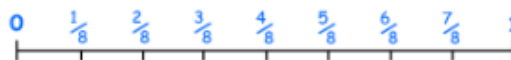
Examples



1) What is the probability that a bead chosen will be **yellow**. Show the answer on a number line.

$$\text{Probability} = \frac{\text{Number of favourable outcomes}}{\text{Total number of outcomes}}$$

$$P(\text{Yellow}) = \frac{2}{8} = \frac{1}{4}$$



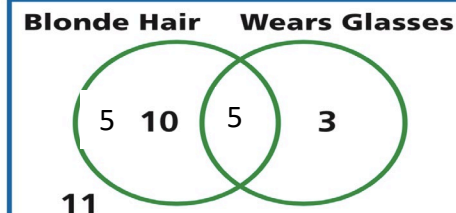
2) How many **yellow** beads would you **expect** if you pulled a bead out and replaced it 40 times?

$$\frac{1}{4} \times 40 = \frac{1}{4} \text{ of } 40 = 10$$

5) Prime Numbers

A prime number is a whole number **greater than 1** AND can only be divided evenly by **1 and itself**. Examples are **2, 3, 5, 7, and 11**.

3 Venn Diagrams



Sample Space Diagrams

Dice 1

	1	2	3	4	5	6
Dice 2	1	2	3	4	5	6
2	2	3	4	5	6	7
3	3	4	5	6	7	8
4	4	5	6	7	8	9
5	5	6	7	8	9	10
6	6	7	8	9	10	11
7	7	8	9	10	11	12

Total Score

4) Factors and Multiples

Factors & Multiples: What's the Difference?

Multiple

A multiple is a number that is the product of a given number and some other number.

$$6 \times 3 = 18$$

multiple

Factor

A factor is a number that is multiplied with another number to get a product.

$$6 \times 3 = 18$$

factor factor

6) Four Operations with Fractions

+ **-**

Adding or subtracting fractions with common denominators

$$\frac{1}{5} + \frac{2}{5} = \frac{3}{5}$$

Add (or subtract) the numerators, denominator stays the same, simplify, if possible.

+ **-**

Adding or subtracting fractions with different denominators

$$\frac{3}{4} - \frac{1}{3} = \frac{9}{12} - \frac{4}{12} = \frac{5}{12}$$

Find least common denominator, subtract (or add) the numerators, simplify, if possible.

x

Multiplying fractions

$$\frac{2}{3} \times \frac{3}{6} = \frac{6}{18} = \frac{1}{3}$$

Multiply the numerators, multiply the denominators, simplify, if possible.

÷

Dividing fractions

$$\frac{3}{5} \div \frac{2}{3} = \frac{3}{5} \times \frac{3}{2} = \frac{9}{10}$$

Multiply the first fraction by the reciprocal of the second fraction, simplify, if possible.



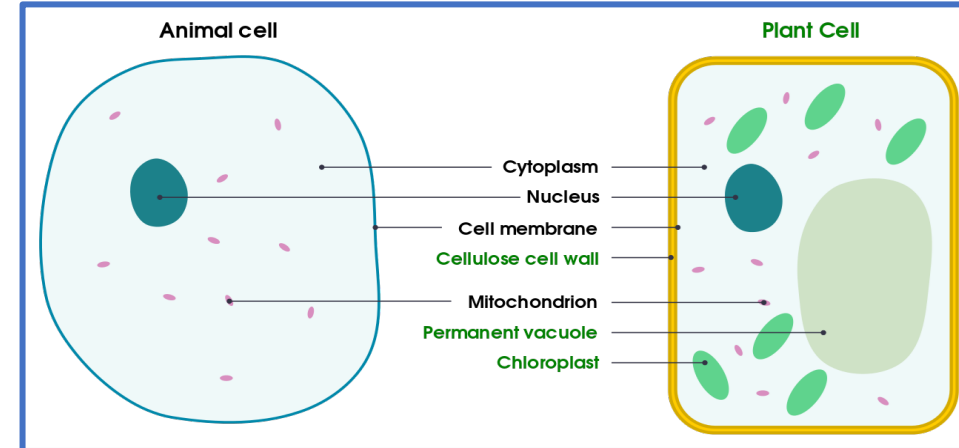
- **Time table practice on time table rocksstar.**
- *In addition, students will receive weekly online homework via the Dr Frost website. This needs to be completed alongside the knowledge questions and times table practice.*

The website is <https://www.drfrost.org/> - homework can be accessed through the email link sent when set.

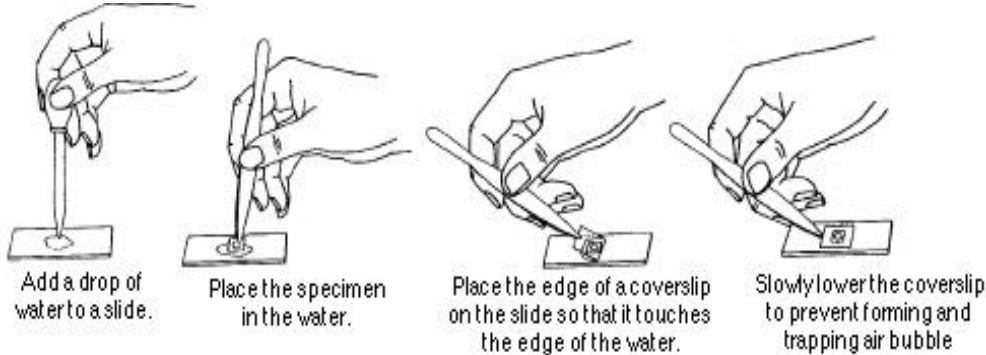
Homework	Due	Task:
<u>Practice homework for tutor time</u>		1. Learn the vocabulary for Probability (Look Cover Write Check) Ext. Be prepared to give an example of an event that is certain and one that is impossible.
<u>Practice homework for tutor time</u>		1. Draw a number line showing the probability scale from 0 – 1 to represent probability of throwing a dice and getting a) a number less than 7 b) a 4 c) an odd number d) a number greater than 20
Venn and Sample Space Diagrams Week 3 homework		Looking at your Knowledge Organiser a) What is the probability of choosing someone Blonde who wears glasses? b) What is the probability of scoring 12 with two dice?
Factors and Multiples Week 4 homework		1. List the first 10 multiples of 6 2. List the factors of 36
Prime Numbers Week 5 homework		1. List all the prime numbers between 0 and 100
Fractions Week 6 homework		1. Make your own poster – with diagrams – to help you to learn the rules for adding and subtracting fractions.
Revision		1. Use your Knowledge Organiser to help you to prepare for the end of unit assessment.



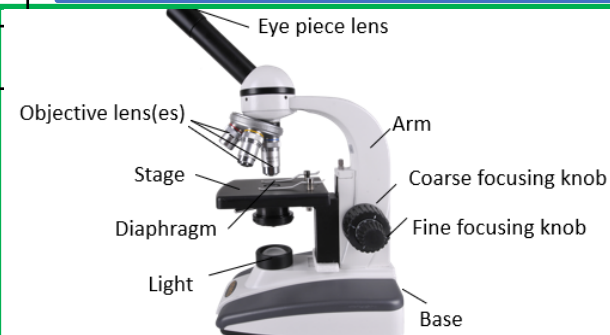
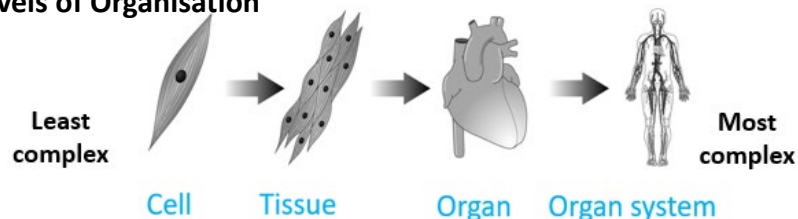
	Key Term	Definition
1	Cell membrane	The cell component which controls the movement of substances into and out of the cell
2	Cell wall	The plant cell component which surrounds the cell, providing support
3	Nucleus	Where all the genetic information is stored in the cell
4	Cytoplasm	A 'jelly-like' substance found in cells, where all the chemical reactions take place
5	Mitochondria	The cell organelle where aerobic respiration takes place
6	Ribosome	The cell organelle responsible for making proteins



Preparing a microscope slide



Levels of Organisation



Microscopes are used to **magnify** objects that we are unable to see with our eyes.

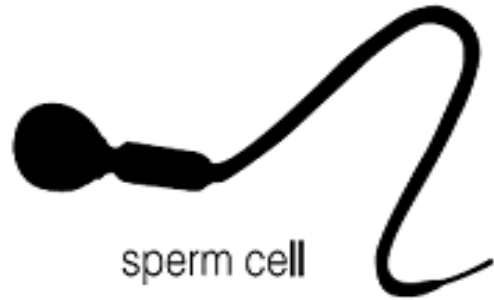
Magnification is a measure of how much 'bigger' an image is compared to the original object

$$\text{Total magnification} = \text{Eye piece lens} \times \text{objective lens}$$

Part of microscope	Description
Eye piece lens	The lens closest to your eye. Typically a magnification of x10
Objective lenses	Three lenses of different magnification used to see the image more clearly
Diaphragm	Controls the amount of light onto the microscope slide
Fine focusing knob	Makes small adjustments to the state so the image is sharp and clear
Coarse focusing knob	Makes large adjustments to the stage so you can see the image more clearly



Specialised cells are cells that are designed to perform a particular function. Multi-cellular organisms are made from different types of specialised cells so that they can carry out a variety of functions



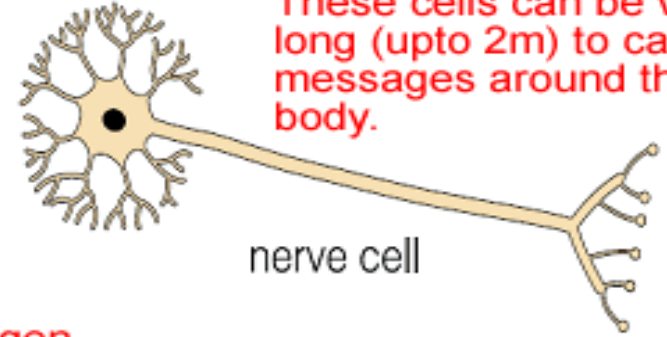
sperm cell

These cells carry half the genetic information. They have tails to swim towards the egg cell



red blood cell

These cells are adapted to carry oxygen to cells and carbon dioxide away from them



nerve cell

These cells can be very long (upto 2m) to carry messages around the body.



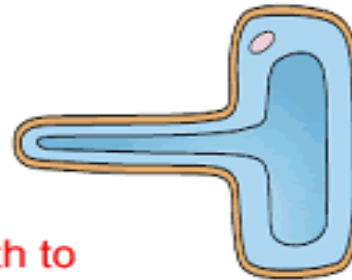
muscle cell

These cells can change their length to help us move.



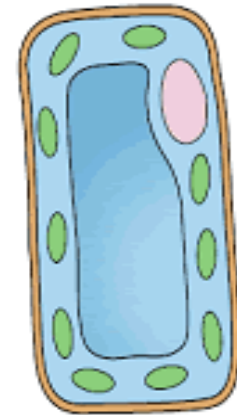
Ciliated Epithelial Cell

These cells are found in tubes leading to the lungs and in the oviduct. The hairs (called cilia) move dirt out of the lungs and help to move eggs along the oviduct.



root hair cell

The root hair gives these cells a bigger surface area to take in water from the soil.



palisade cell

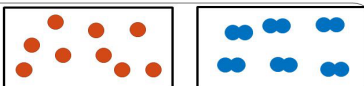
These cells contain chloroplasts to help the plant make food by photosynthesis.



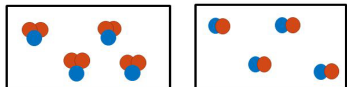
	Key Term	Definition
1	Atom	The smallest part of a chemical element to exist. Everything is made of atoms
2	Element	A substance made of only one type of atom
3	Compound	A substance made of two or more elements chemically bonded together
4	Mixture	A substance made of two or more elements that are not chemically bonded together
5	Physical change	A reversible change in which no new substances are made
6	Chemical change	A change (usually irreversible) in which new substances are formed

Property	Solid	Liquid	Gas
Does it have a fixed shape?	Yes	No	No
Does it have a fixed volume?	Yes	Yes	No
Can it be compressed?	No	No	Yes
Can it flow?	No	Yes	Yes

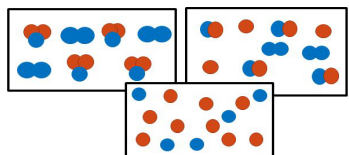
ELEMENTS:



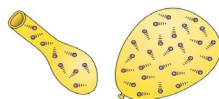
COMPOUNDS:



MIXTURES:



Gas pressure: pressure is caused by the particles hitting the sides of its container.



When you blow up a balloon, millions of air particles **collide** with the walls of the balloon.

The more particles inside the balloon, the greater the gas pressure because there will be more collisions.

Gas pressure increases if:

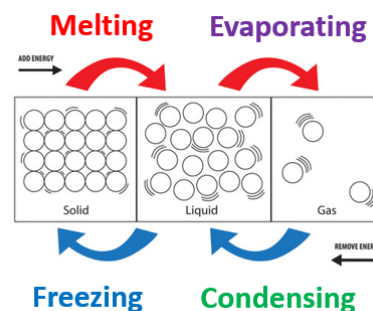
- The **temperature** is increased – because the particles have more energy and move faster
- The **volume** of the container decreases – because the particles collide with the walls more often

States of matter

Substances exist in three states of matter: solids, liquids and gases. All substances are made from particles, and the forces between the particles are different in each state.

Examples of each state at room temperature are:

- Solids– plastic, wood, brick
- Liquids – water, oil, fruit juice
- Gases – oxygen, hydrogen, helium



Key points:

When a substance is heated, the particles have more kinetic energy and move around faster

The size of the particles does not change!

The space between the particles does – the hotter the particles are, the bigger the spaces between them. The cooler they are, the smaller the spaces between the particles.
The closer the particles are, the greater the attractive forces between them.

Diffusion: The random movement of particles from an area where there are lots of them to an area where there are fewer.

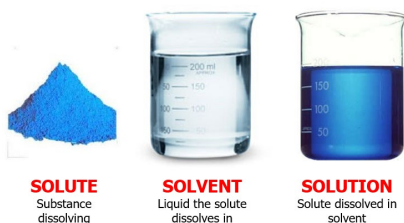
1. 	2. 	3. 	4.
The particles are separate when first put together.	The particles slowly start to mix due to their random movement.	The particles are NEARLY fully diffused as they are all mixed up.	The particles are now fully mixed up and diffused.



A mixture is made of two or more different substances that are not chemically bonded together. There are different ways to separate mixtures. The method chosen depends on the type of mixture.

	Key Term	Definition
1	Chromatography	A technique used to separate mixtures of liquids that are soluble in the same solvent
2	Dissolving	The mixing of a substance (the solute) with a liquid (the solvent) to make a solution
3	Evaporation	The change of state from a liquid to a gas
4	Soluble	A substance that can dissolve in a certain solvent
5	Insoluble	A substance that cannot dissolve in a certain solvent
6	Thermometer	Apparatus used to measure the temperature of a substance

Dissolving:



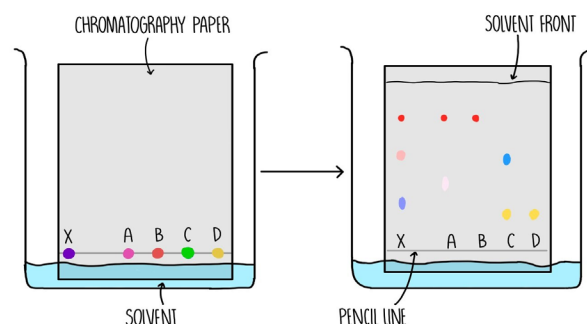
A solution is made when a solute dissolves in a solvent. Solutions are **mixtures**.

If a substance can dissolve into a solvent, it is **soluble**. For example, salt dissolves in water to make salt water. If it cannot dissolve, it is **insoluble**. For example, sand is insoluble in water.

Heating and stirring speed up dissolving

Chromatography: is used to separate a mixture of coloured compounds, for example – inks, dyes and plant pigments.

A **chromatogram** is a piece of paper showing the results after the chromatography has occurred.

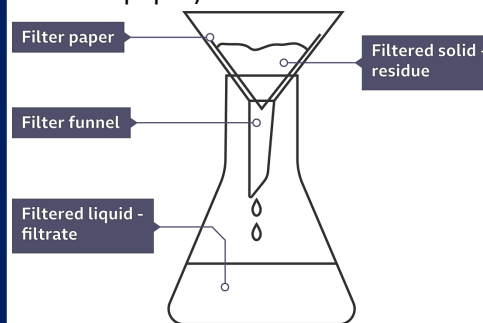


Key point: The starting line must be drawn in pencil so that it does not also dissolve in the solvent

Filtration: is used to separate an insoluble solid from a pure liquid or solution.

To filter a substance you will need:

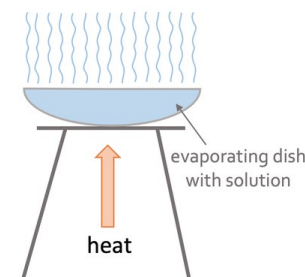
- **Filter paper** folded into a cone
- A **funnel** to hold the filter paper
- A **beaker** to collect the **filtrate** (the liquid which passes through the filter paper)



Crystallisation: used to produce solid crystals from a solution.

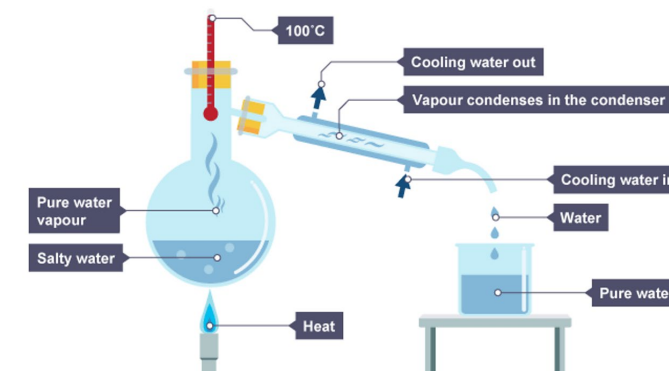
Method:

1. A solution is placed in an evaporating basin and heated with a Bunsen burner
2. Water evaporates from the solution and solid crystals begin to form around the edge of the basin
3. Leave the solution in a warm place for the crystals to form



Distillation:

A separation technique which is used to separate a solvent from a mixture. The solvent is first evaporated (liquid to gas) as it is heated, and then condenses (gas to liquid) as it cools so that it can be collected.



We can use distillation to produce pure water from dirty water to make it safe to drink.

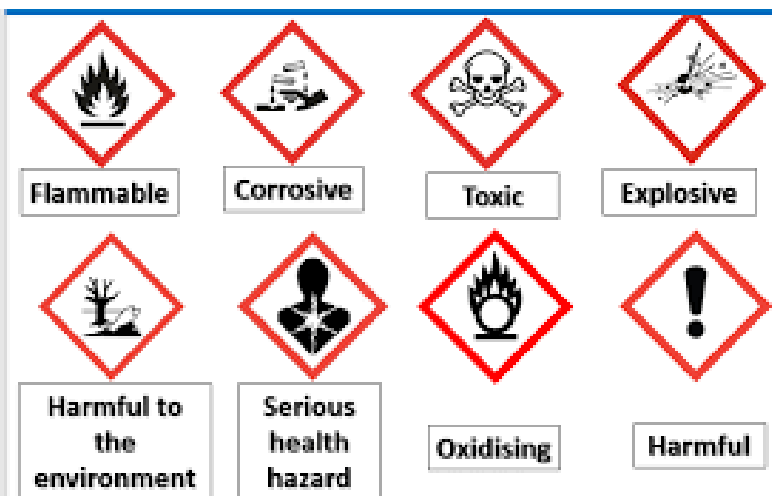
Distillation can also be used to separate a mixture of two liquids which have different boiling points.



	Key Term	Definition
1	Hazard	A potential source of harm
2	Bunsen burner	Apparatus used to heat substances in the lab
3	Flammable	Something that catches fire easily
4	Corrosive	A substance that will dissolve or burn materials, including the skin
5	Irritant	Substances which cause irritation to the skin
6	Toxic	A substance which can be poisonous and possibly deadly.

A **hazard** is something that can cause harm. A **risk** is a chance that a hazard will cause anybody harm.

The type of harm that could be caused is often shown using a hazard symbol. **Hazard symbols** can also be seen on items in the home.



Bunsen burners are used to heat substances in the lab.

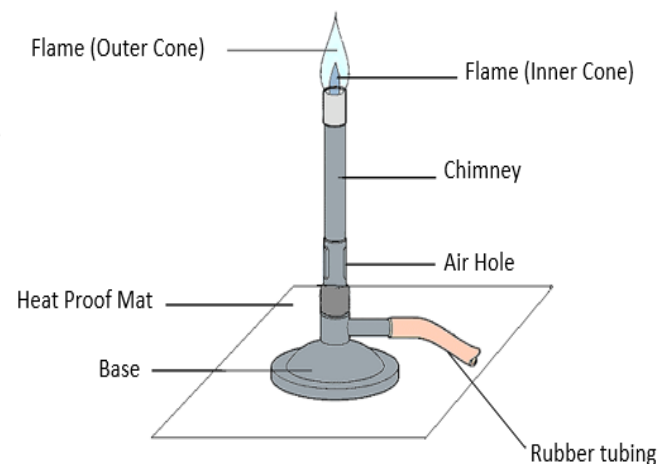
When you light a Bunsen burner, the flame will be yellow. This is called the **safety flame** because you can see it.

You can change the colour of the flame by **opening and closing the air hole**. This changes the amount of **oxygen** that enters the Bunsen burner.

A **combustion** reaction takes place when the Bunsen burner is lit.

How to work safely using a Bunsen burner:

1. Make sure there are no breaks or holes in the gas hose.
2. Follow lab rules: safety goggles, tie hair back, tuck in your tie.
3. Put the Bunsen burner on a heat-resistant mat, making sure it isn't near the edge of the bench.
4. Turn the collar to ensure the air hole of the Bunsen burner is closed when turning it on and off.
5. Hold a lit splint 1-2 cm above the top of the barrel of the burner.
6. Extinguish the splint and place it on the heat-resistant mat.



	Air hole open	Air hole half-open	Air hole closed
Type of Flame	Roaring	Blue	Orange (safety)
When is it used?	Heating things quickly	Heating things slowly	When not being used but we want to leave it on
Amount of air	A lot	Some	Little
Amount of heat	700°C	500°C	300°C

**Instructions:**

1. For each homework, you will be asked to look at a **particular section of your Knowledge Organiser**, use the knowledge organiser to help you answer the questions using full sentences.
2. Each task should take 20 minutes, Set a timer and **stop when the time runs out**.



Homework	Due	Task:
<u>Practice homework for tutor time</u>		1. Read, cover, write, check key terms 1-6 2. Name three organelles found in plant cells that are not found in animal cells 3. State the equation used to calculate total magnification when using a microscope 4. A microscope has an eye piece lens with a x10 magnification and objective lens with x40 magnification. Calculate the total magnification of the microscope 5. Write a method outlining how you would prepare a microscope slide to view a specimen under the microscope
<u>Practice homework for tutor time</u>		1. Explain why it is important that cells are specialised? 2. Suggest why a palisade cell contains lots of chloroplasts, but a root hair cell does not 3. Which of the specialised cells shown are from animals, and which are from plants? 4. What is the function of a red blood cell? 5. Sketch a ciliated epithelial cell and label the cilia
Week 3 homework		1. Read, cover, write, check key terms 1-6 2. Name the change of state which occurs as a substance changes from a gas to a liquid 3. In which state of matter do substances not have a fixed volume or shape, but can be compressed easily? 4. Describe what happens to the arrangement and motion (movement) of particles as a substance is heated and melted 5. A pupil says 'compounds are the same as mixtures because they are both made of more than one type of element'. Explain whether the pupil is correct or incorrect?



1. For each homework, you will be asked to look at a **particular section of your Knowledge Organiser**, use the **knowledge organiser** to help you answer the questions using full sentences.
2. Each task should take 20 minutes, Set a timer and **stop when the time runs out.**

Homework	Due	Task:
Week 4 homework Separating substances		1. Read, cover, write, check key terms 1-6 2. Name and describe the separation technique which could be used to collect pure water from salt water 3. Draw a labelled diagram to show the apparatus you would need to use to separate a mixture of mud from water using filtration 4. Why is it important that the starting line for a chromatography experiment is drawn using pencil? 5. A pupil added a teaspoon of sugar to a cup of warm tea, and it seemed to disappear. Describe what has happened to the sugar and state two ways which this process could be made quicker.
Week 5 homework Lab Safety and Hazard symbols		1. Read, cover, write, check key terms 1-6 2. How do you change the colour and temperature of the flame on a Bunsen burner? 3. Which flame on the Bunsen burner is the hottest flame, and what is this used for? 4. Describe the difference between a hazard and a risk 5. Look at the list of safety measures that people should take when working with a Bunsen burner. Choose one that you think is the most important and justify (give reasons) for your answer
Week 6 homework Review		1. What is the function of a ribosome? 2. Which type of specialised cell enables photosynthesis to be carried out? 3. Describe and explain what happens to gas pressure as the volume of the container decreases 4. What is the difference between a solvent and a solute 5. Which flame on the Bunsen burner should be used when it is not being used but you want to leave it on