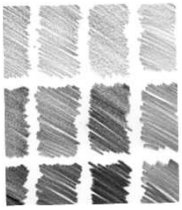
Knowledge Organiser. Year 7 Art: Formal Elements/Nature

LINE	TONE	PATTERN	TEXTURE	FORM	COLOUR
					

The Formal Elements in Art are very important. They are a set of words we will explore each lesson. Each word is linked to a set of skills we will practise together. Later in the term we will be learning more about Art, through the theme of Animals and Nature.

What will you learn? (overview of knowledge)

Students will learn about each formal element in Art – Line, Tone, Pattern, Texture, Form and Colour. Formal elements have two key uses – to help analyse art and to help create art. Students will learn how to apply this knowledge in their artwork and in their critical analysis.

What skills will you learn/develop?

- ☐ Drawing skills – shape, tone and detail
- ☐ Mixing and applying paint
- ☐ Mark-making skills
- ☐ Depicting Form using Tonal values
- ☐ Using media to create 3D forms
- ☐ Some critical analysis of art work and artists

Support/Challenge:

https://hardleyart.wordpress.com/the-formal-elements-in-art/

http://www.artyfactory.com/art_appreciation/visual-elements/visual-elements.html

Below are some key words we will be using in the classroom:

COLOUR	**TONE**	**LINE**	**FORM**
PATTERN	**TEXTURE**	**MIX**	**LIGHT**
HARMONIOUS	**COMPLEMENTARY**	**PRIMARY**	**DARK**
REPEAT	**3-DIMENSIONAL**	**SECONDARY**	**PAINT**
PENCIL	**BLENDING**	**MARK-MAKING**	**ANALYSE**

Year 7 Business Knowledge Organiser

Aim of the unit

The aim of this unit is to provide a foundational knowledge of business. You will learn the basic concepts in business, which will help you in making informed decision when choosing business as one of the optional subjects in Year 9

Overview

You will be finding out about different concepts such as, entrepreneur, market research and sources of finance for small business. You will also improve your creative skill by designing business adverts, questionnaires, and how to obtain customer feedback. You will learn these concepts for 6 weeks.

Key skills

Team working – work in teams, shares ideas and boost interpersonal skill.
Analytical skill - compare ideas from both sides and use personal opinion to provide constructive criticism.
IT skill - using MS word office to report on the findings from research note-taking.
Research skill - making research and provide findings from research

Assessments

Assessment is based on class work and homework which is issued once every 2 weeks.

Key vocabulary

Entrepreneur – someone who takes risk and sets up a business.
Market research - process of understanding more about customers, market, competitors etc.
Capital – money invested in business.
Advertisement - process of creating awareness of products and services in order to attract and retain customers.
Customer feedback - comments or information fro m customer which helps business to improve.

Support/challenges

Differentiated tasks and homework

Year 7 MicroBit

What you are going to learn:

You are going to be learning about coding techniques using MicroBit.

Length of Unit:

6 Weeks

Key Words:

Variable: a named value that changes while the code is running
Constant: a value that is set at the start of the code and doesn't change while the code is running
Loop: when code is repeated.
If Statement: a statement that has different outcomes depending on conditions

What is an algorithm? How would you define pseudocode?

Types of Loop:

For Loop – this is the counting loop

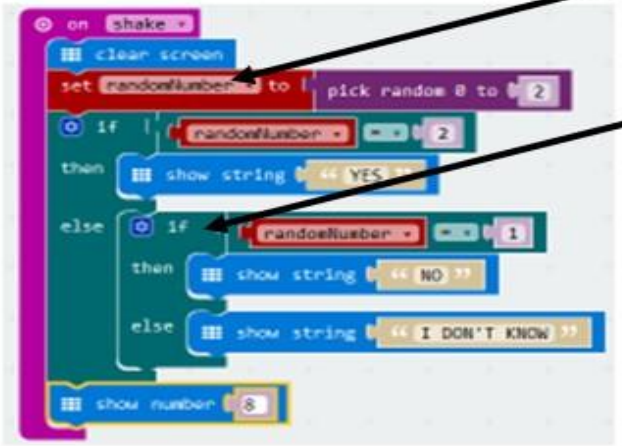
If we do not know how many times to run code we can use:
Repeat Loop – checks the condition at the end
While Loop – checks the condition at the beginning.

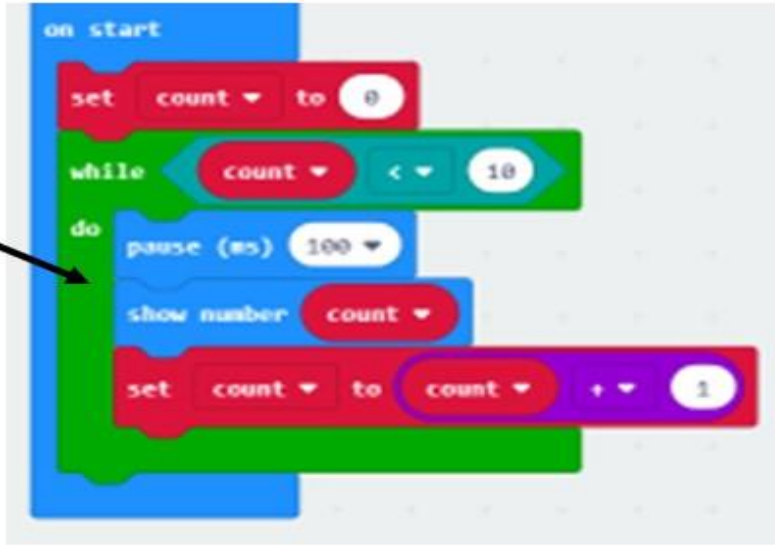
Which of these possibly will not run?

Variable

If Statement

Loop





Support/Challenge

https://microbit.org/

Find out about the 3 types of loop.

What is the difference between them?

Year 7 HTML

Summary

Hyper Text Markup Language (HTML) is a basic programming language for building web pages. It uses a set of predefined tags that the web browser then interprets and displays the pages.

Using HTML to create websites

HTML can be written in specialist software, or in a simple text editor like Notepad. As long as the document is saved with the file extension '**.html**' it can be opened and viewed as a webpage from a browser.
This example HTML code, it displays a message on a webpage:

```
<html>
<body>
<h1>Welcome to my website</h1>
<p>This is my first web page</p>
</body>
</html>
```

Tags

Tags are to describe the appearance of the information:

<HTML>	states that the document is a HTML document
<body>	states that the information appears in the body of the page
<p>	states that this is the beginning of a new paragraph
<b>	states that the following text appears bold
<u>	states that the following text appears underlined
<i>	states that the following text appears italic
<h1>	states that the following text appears as a prominent heading

Websites

Learn html using these websites:

- www.w3schools.com/html/
- www.codecademy.com/learn/learn-html

Keywords

Hyper Text Markup Language (HTML)	Hyper Text Markup Language. The language used to write and display web page documents.
Cascading Style Sheets (CSS)	Cascading Style Sheets (CSS) is the computer language used for adding style (e.g. fonts, colours) to Web documents
Hyperlink	A link in a document or webpage that connects to another location
Internet	A global network connecting millions of computers.
Web browser	An application that displays web pages. e.g. Google Chrome or Firefox
Tags	Keywords which defines that how web browser will format and display the content
Website	A web page or group of web pages hosted on one web server and viewed in a web browser, usually maintained by a person, group or organisation

Year 7 TERM 2

Much Ado About Nothing and Gender Stereotypes

This term we will explore our first play by England's most famous playwright William Shakespeare.

While studying the play "Much Ado About Nothing" we will explore the themes of love, power, hatred, honour, friendship, deceit, family, betrayal and above all gender expectations.

Key question for this unit: What were the expectations of women at the end of the Elizabethan era and what was their position in society?

Your assessments:

Reading exam: **Compare how Beatrice and Hero are presented in this extract and across the play.**

Writing assessment: **Transactional writing based on the play – Diary entry as Don John detailing how and why he plans to ruin his brother's happiness.**

You will be assessed this term on your ability to evaluate how characters are presented, and if this changes over the course of the play. This may include their personality, actions and if they are behaving like we would expect men or women to in the Elizabethan Era. This is what we call context. Factors to consider would be:

- It was a patriarchal society: Women were ruled by their fathers, husbands or brothers and were supposed to be do as they were told without question. Women would never challenge a man and were expected to marry who they were told to.
- Men were supposed to be strong, brave and masculine (reputation was important for both men and women).
- Children born outside of marriage were illegitimate and were looked down upon by society (Don John was born outside of marriage) and were unable to inherit their father's wealth or titles.

Some ambitious vocabulary to get you started: Pernicious, Envious, Malicious, Adoration, Resentful, Virtuous, Devotion, Treacherous, Allegiance, Duplicitous, Corrupt.

You will also be assessed on your ability to write a diary entry from the perspective of one of the characters in the play. How are they feeling and why? Key elements you will be assessed on are:

- A logical structure which is easy to follow (a clear beginning, middle and end). You will need to organize your ideas placing related points together.
- The use of ambitious and interesting vocabulary that reflect the personality of the character. Convincing and compelling language will engage the reader and bring your character's words to life.
- Include varied sentence starters, topic sentences and different connectives to link sentences and ideas. A range of sentence types are important.
- Include language devices (similes, metaphors, alliteration, personification) to interest the reader.
- You will need a secure knowledge of the play and have to consider the context in which it was written in order to communicate how the character feels and what motivates them. Adopt a personal style and describe key events in the play from the perspective of your character.

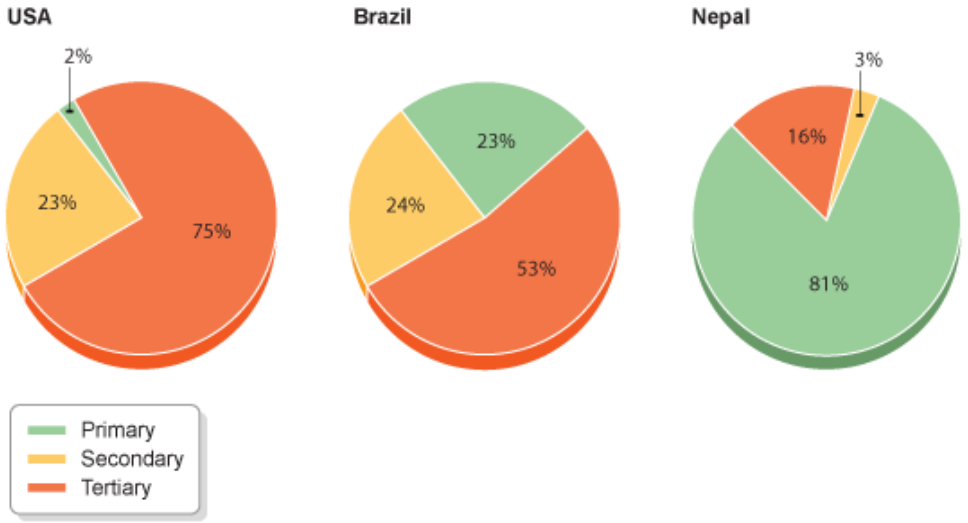
Dramatis Personae (our main characters) Much Ado About Nothing.

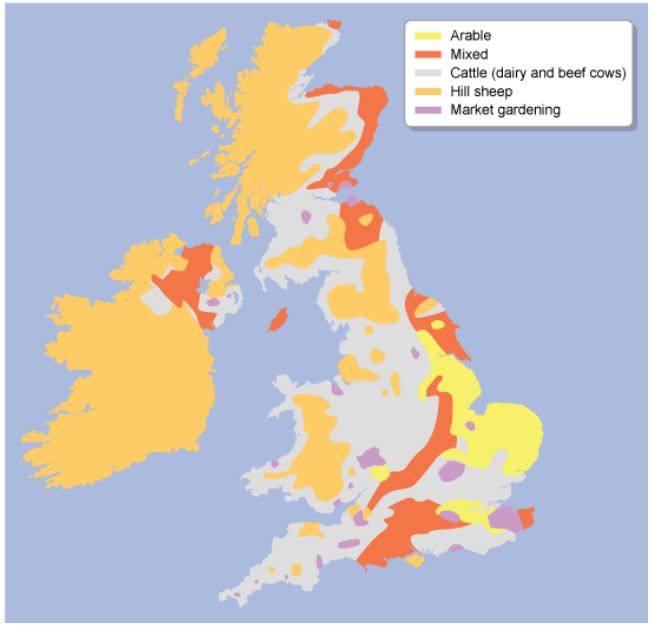
Benedick: a soldier and Don Pedro's friend. Known for his quick-wit. He is in love with Beatrice but does not realise it.
Beatrice: Leonato's niece. Quick-witted and intelligent. She is in love with Benedick but does not realise it.
Claudio: a lord, a soldier and Don Pedro's friend. Young and naïve. Falls in love with Hero.
Hero: Leonato's daughter. Young and naïve. Falls in love with Claudio, but is accused of being unfaithful.
Leonato: Governor of Messina. Old and wise but easily swayed by the opinions of others.
Don Pedro: Prince of Aragon. A wise and benevolent man who has just been victorious in a war with his half-brother.
Don John: half-brother of Don Pedro. Resentful and angry over his status, he plots to destroy the happiness of others.

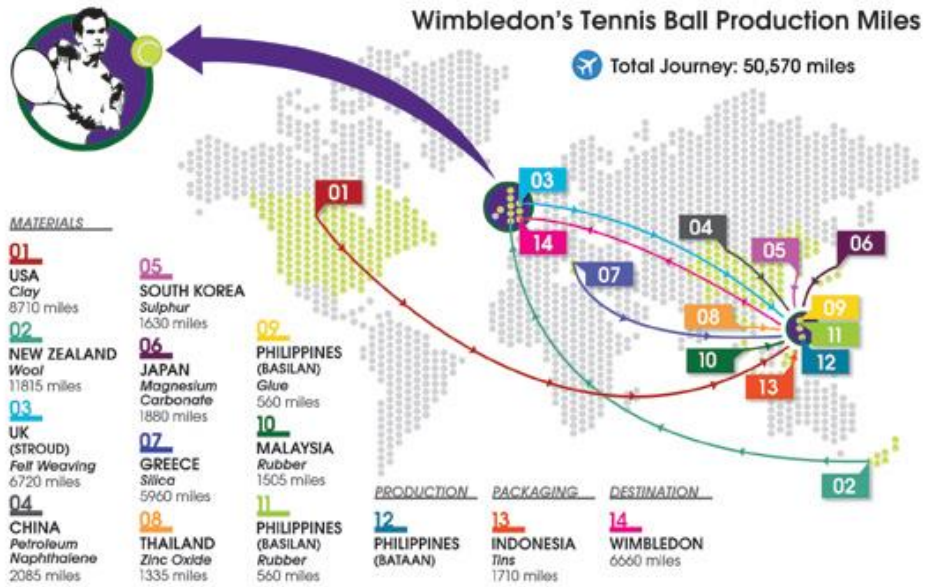
Geography - Year 7 Term 2 - Industry

Key Terms

Primary Industry	Employ people to collect natural resources from the land or sea, eg farmer.
Secondary Industry	Employ people to make things from raw materials, eg factory worker.
Tertiary Industry	Provide a service for people and don't make anything, eg teachers or nurses.
Employment Structure	The proportion of people working in primary, secondary or tertiary industry.
Quaternary Industry	High tech activities that provide information and advice or are involved in research, eg software developer.
Agriculture	The growing of crops (arable) or rearing of animals (pastoral).
Site	The location where a farm or factory is located.
Leisure	The industry concerned with what people choose to do in their free time.
Tourism	The industry concerned with what people choose to do when they visit away from home for a day or longer.
Footloose	A term describing an industry which is not tied to a site by the need for raw materials, skilled workers or market location.
Manufacturing	The production of products from other raw materials. An activity that takes place in factories.



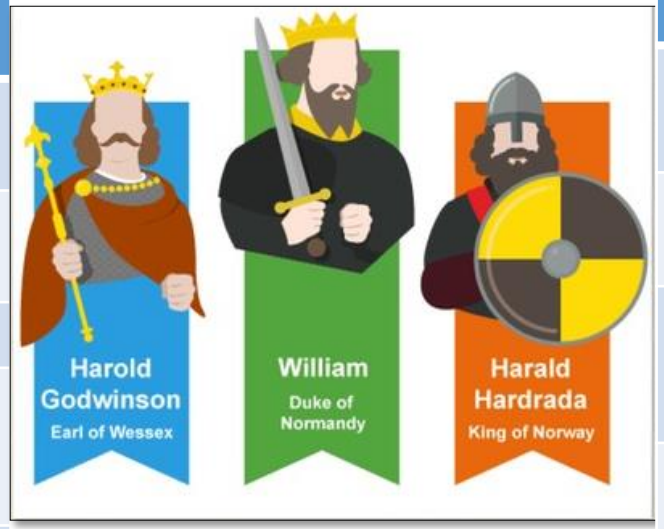




Year 7 history knowledge organiser term 2:Why did William win the Battle of Hastings?

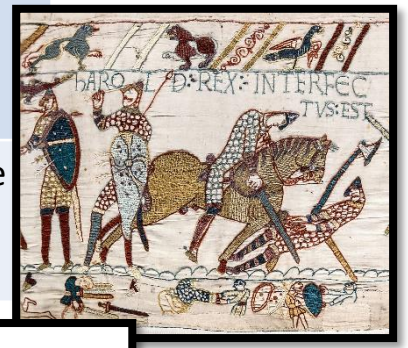
Keywords and definitions

Medieval	The period between 1066-1500
Chronology	Putting events in the order that they happened
Century	100 years
Anglo-Saxons	People that lived in England before the Norman Conquest
Normans	People from the Normandy region of France, led by King William
Bayeux Tapestry	An embroidery telling the story of the Norman Conquest



Keywords and definitions

Conquest	Taking an area by using force
Fyrd	Local farmers that fight for Harold Godwinson's army
Housecarls	Paid, experienced soldiers that fought for Harold's army
Cavalry	William's soldiers that fought on horses
Harrying	To completely destroy



Potential heirs to the English throne in 1066: Who should become king?

Harald Hardrada

Viking King of Norway
Vikings had ruled Britain before.
Most feared warrior in Europe – Hardrada means 'hard ruler' and his nickname was 'the Ruthless'.
Harald was supported by Tostig, Harold Godwinson's brother who wanted revenge.

Harold Godwinson

Anglo-Saxon. Earl of Wessex, one of the most powerful men in England
Harold's sister was married to King Edward. Harold was a brave and respected solder with a tough streak.
The Witan, wanted Harold to be the next king.

William of Normandy

Duke of Normandy, France.
William came from a fighting family. He was a brave solider.
Edward's cousin. Edward had lived in Normandy from 1016-1042. Edward had supposedly promised that William should become King of England

YEAR 9 – REASONING WITH ALGEBRA...

Forming and Solving Equations

@whisto_maths

What do I need to be able to do?

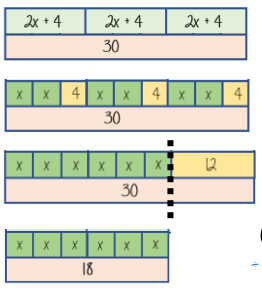
By the end of this unit you should be able to:

- Solve inequalities with negative numbers
- Solve equations with unknowns on both sides
- Solve inequalities with unknowns on both sides
- Substitute into formulae and equations
- Rearrange formulae

Keywords

Inequality: an inequality compares who values showing if one is greater than, less than or equal to another
Variable: a quantity that may change within the context of the problem
Rearrange: Change the order
Inverse operation: the operation that reverses the action
Substitute: replace a variable with a numerical value
Solve: find a numerical value that satisfies an equation

Solve equations with brackets (R)



$3(2x + 4) = 30$

Expand the brackets

$6x + 12 = 30$

$-12 \quad -12$

$6x = 18$

$\div 6 \quad \div 6$

$x = 3$

Form and solve inequalities (R)

Two more than treble my number is greater than 11

Find the possible range of values

$3x + 2 > 11$

Solve

$x \leftarrow -3 \leftarrow -2 \leftarrow 11$

$x > 3$

Inequalities with negatives

Method 1 Make x positive first

$2 - 3x > 17$

$+3x \quad +3x$

$2 > 17 + 3x$

$-17 \quad -17$

$-15 > 3x$

$\div 3 \quad \div 3$

$-5 > x$

x is true for any value smaller than -5

Smaller ← → Bigger

-7 -5 -3

✓ CHECK IT!
$2 - 3(-6) = 20$
TRUE/ CORRECT

Method 2 Keep the negative x

$2 - 3x > 17$

$-2 \quad -2$

$-3x > 15$

$\div -3 \quad \div -3$

$x > -5$

x is true for any value bigger than -5

This cannot be true...

$x < -5$

When you multiply or divide x by a negative you need to reverse the inequality

Equations with unknown on both sides

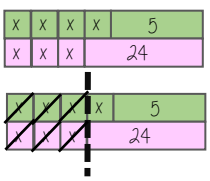
$4x + 5 = 3x + 24$

$-3x \quad -3x$

$x + 5 = 24$

$-5 \quad -5$

$x = 19$



Inequalities with unknown on both sides

Solving inequalities has the same method as equations

$5(x + 4) < 3(x + 2)$

$5x + 20 < 3x + 6$

$2x + 20 < 6$

$2x < -14$

$x < -7$

Check it!

$5(-8 + 4) < 3(-8 + 2)$

$5(-4) < 3(-6)$

$-20 < -18$

✓ -20 IS smaller than -18

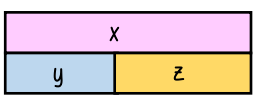
Formulae and Equations

Formulae – all expressed in symbols

Substitute in values →

Equations – include numbers and can be solved

Rearranging Formulae (one step)



$x = y + z$

Rearrange to make y the subject.

$y = x - z$

$y \rightarrow +z \rightarrow x$

$y \leftarrow -z \leftarrow x$

Using inverse operations or fact families will guide you through rearranging formulae

Rearranging can also be checked by substitution

Language of rearranging....

Make XXX the subject

Change the subject

Rearrange

Rearranging Formulae (two step)

In an equation (find x)

$4x - 3 = 9$

$+3 \quad +3$

$4x = 12$

$\div 4 \quad \div 4$

$x = 3$

In a formula (make x the subject)

$xy - s = a$

$+s \quad +s$

$xy = a + s$

$\div y \quad \div y$

$x = \frac{a + s}{y}$

The steps are the same for solving and rearranging

Rearranging is often needed when using $y = mx + c$

e.g. Find the gradient of the line $2y - 4x = 9$

Make y the subject first $y = \frac{4x + 9}{2}$

Gradient $= \frac{4}{2} = 2$

YEAR 9 – REASONING WITH GEOMETRY...

Rotation & Translation

@whisto_maths

What do I need to be able to do?

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

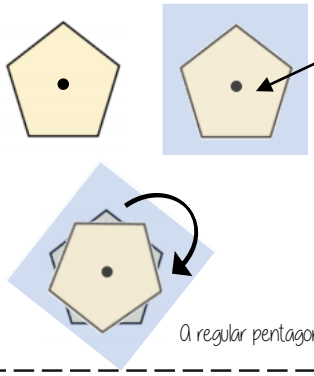
- Identify the order of rotational symmetry
- Rotate a shape about a point on the shape
- Rotate a shape about a point not on a shape
- Translate by a given vector
- Compare rotations and reflections

Keywords

Rotate: a rotation is a circular movement.
Symmetry: when two or more parts are identical after a transformation.
Regular: a regular shape has angles and sides of equal lengths.
Invariant: a point that does not move after a transformation.
Vertex: a point two edges meet.
Horizontal: from side to side
Vertical: from up to down

Rotational Symmetry

Tracing paper helps check rotational symmetry.



1. Trace your shape (mark the centre point)
2. Rotate your tracing paper on top of the original through 360°
3. Count the times it fits back into itself

A regular pentagon has rotational symmetry of order 5

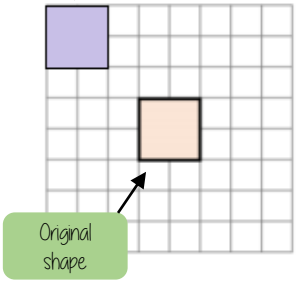
Translation and vector notation

Vector Notation → $\begin{pmatrix} 1 \\ -2 \end{pmatrix}$

How far left or right to move
Negative value (left)
Positive value (right)

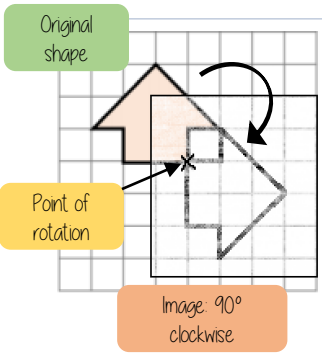
How far up or down to move
Negative value (down)
Positive value (up)

Translation $\begin{pmatrix} -3 \\ 3 \end{pmatrix}$



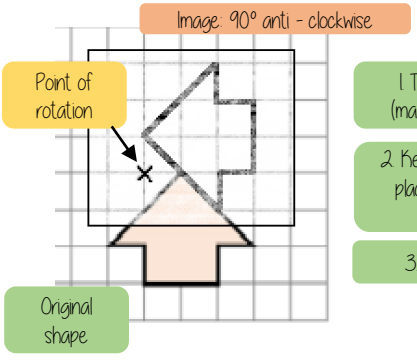
Every vertex has been translated by the same amount

Rotate from a point (in a shape)



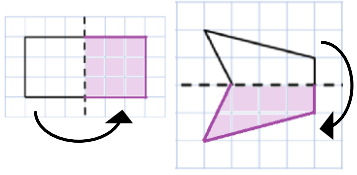
1. Trace the original shape (mark the point of rotation)
2. Keep the point in the same place and turn the tracing paper
3. Draw the new shape

Rotate from a point (outside a shape)



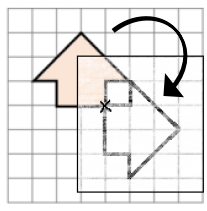
1. Trace the original shape (mark the point of rotation)
2. Keep the point in the same place and turn the tracing paper
3. Draw the new shape

Compare rotations and reflections



R Reflections are a mirror image of the original shape.

Information needed to perform a reflection:
- Line of reflection (Mirror line)



Rotations are the movement of a shape in a circular motion

Information needed to perform a rotation:
- Point of rotation
- Direction of rotation
- Degrees of rotation

YEAR 7 – FRACTIONAL THINKING

Addition and subtraction of fractions

@whisto_maths

What do I need to be able to do?

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

- Convert between mixed numbers and fractions
- Add/Subtract unit fractions (same denominator)
- Add/Subtract fractions (same denominator)
- Add/Subtract fractions from integers
- Use equivalent fractions
- Add/Subtract any fractions
- Add/Subtract improper fractions and mixed numbers
- Use fractions in algebraic contexts

Keywords

Numerator : the number above the line on a fraction. The top number. Represents how many parts are taken

Denominator: the number below the line on a fraction. The number represent the total number of parts

Equivalent: of equal value

Mixed numbers: a number with an integer and a proper fraction

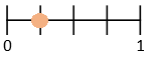
Improper fractions: a fraction with a bigger numerator than denominator

Substitute: replace a variable with a numerical value

Place value: the value of a digit depending on its place in a number. In our decimal number system, each place is 10 times bigger than the place to its right

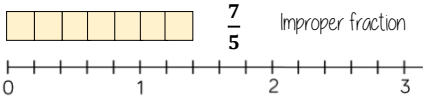
Representing Fractions

$\frac{1}{4}$ is represented in all the images



$1 \div 4$

Mixed numbers and fractions



$\frac{7}{5}$ Improper fraction

$1\frac{2}{5}$ Mixed number

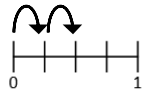
In this model 5 parts make up a whole

Fractions can be bigger than a whole

Add/Subtract unit fractions

Same denominator

$\frac{1}{12} + \frac{1}{12} - \frac{1}{12} = \frac{2}{12}$



$\frac{1}{4} + \frac{1}{4} = \frac{2}{4}$

With the same denominator ONLY the numerator is added or subtracted

Add/Subtract fractions

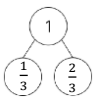
Same denominator

$\frac{2}{7} + \frac{3}{7} = \frac{5}{7}$

Sequences

$\frac{1}{3}, 1, 1\frac{2}{3}, 2\frac{1}{3}, 3, \ldots$

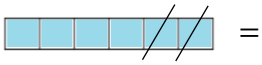
$+\frac{2}{3}$ $+\frac{2}{3}$



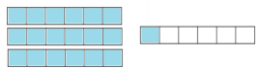
Represent this on a number line to help

Add/Subtract from integers

$1 - \frac{2}{6} = \frac{4}{6}$



$3 + \frac{1}{6} = 3\frac{1}{6}$

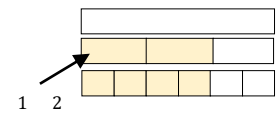


The denominator indicates the number of parts a whole is made up of

Equivalent fractions

Numerator and denominator have the same multiplier

$\frac{2}{3} = \frac{4}{6}$



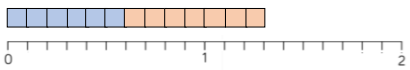
$\frac{1}{3} = \frac{2}{6}$

Add/Subtraction fractions (common multiples)

$\frac{3}{5} + \frac{7}{10}$

$\frac{6}{10} + \frac{7}{10}$

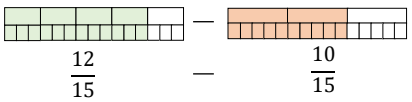
Addition/Subtraction needs a common denominator



$\frac{13}{10}$

Add/Subtraction any fractions

$\frac{4}{5} - \frac{2}{3}$



$\frac{12}{15} - \frac{10}{15} = \frac{2}{15}$

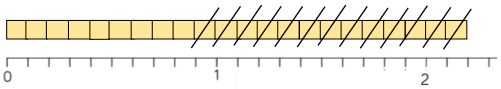
Use equivalent fractions to find a common multiple for both denominators

Add/Subtraction fractions (improper and mixed)

$2\frac{1}{5} - 1\frac{3}{10}$

$2\frac{2}{10}$

$\frac{22}{10} - \frac{13}{10} = \frac{9}{10}$



- Convert to an improper fraction
- Calculate with common denominator

Partitioning method

$2\frac{1}{5} - 1\frac{3}{10} = 2\frac{2}{10} - 1\frac{3}{10} = 2\frac{2}{10} - 1 - \frac{3}{10} = 1\frac{2}{10} - \frac{3}{10} = \frac{9}{10}$

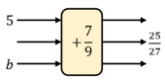
Fractions in algebraic contexts

$p = 5 \quad m = 2$

$k - \frac{5}{8} = 2$

Apply inverse operations

$k = 2 + \frac{5}{8}$



Form expressions with fractions

$b + \frac{7}{9} \longrightarrow b + \frac{7}{9}$

$\frac{p}{8} + \frac{1}{m}$

Substitution

$\frac{5}{8} + \frac{1}{2}$

Fractions and decimals

$\frac{1}{10} = 0.1$

$\frac{1}{100} = 0.01$

Example $\frac{6}{10} + 0.3 \longrightarrow 0.6 + 0.3$

$\frac{6}{10} + \frac{3}{10}$

Remember to use equivalent fractions and common denominators

YEAR 7 – APPLICATION OF NUMBER

Fractions and percentages of amounts

@whisto_maths

What do I need to be able to do?

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

- Find a fraction of a given amount
- Use a given fraction to find the whole or other fractions
- Find the percentage of an amount using mental methods
- Find the percentage of a given amount using a calculator

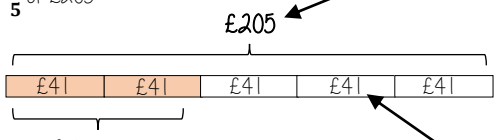
Keywords

Fraction: how many parts of a whole we have
Equivalent: of equal value
Whole: a number with no fractional or decimal part
Percentage: parts per 100 (uses the % symbol)
Place Value: the value of a digit depending on its place in a number. In our decimal number system, each place is 10 times bigger than the place to its right
Convert: change into an equivalent representation, often fraction to decimal to a percentage cycle

Fraction of a given amount

Find $\frac{2}{5}$ of £205

The bar represents the whole amount

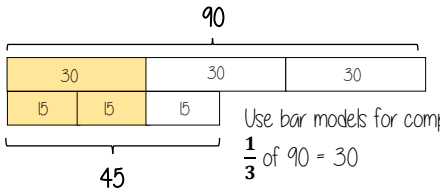


2 out of the 5 equal parts

2 x £41 = **£82**

£205 ÷ 5 = £41

Each part of the bar model represents £41



Use bar models for comparisons

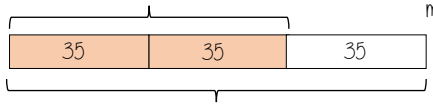
$\frac{1}{3}$ of 90 = 30

$\frac{2}{3}$ of 45 = 30

$\therefore \frac{1}{3}$ of 90 = $\frac{2}{3}$ of 45

Use a fraction of amount

$\frac{2}{3}$ of a value is 70. What is the whole number?



70 ÷ 2 = 35

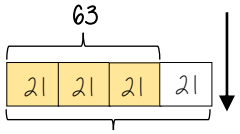
Each part of the bar model represents 35.

35 x 3 = 105

The whole number is 105

The wording of the question is important to setting up the bar model

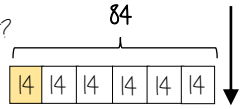
$\frac{3}{4}$ of a number is 63.



Find the whole

What is $\frac{1}{6}$ of the number?

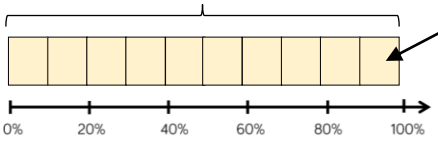
= 14



Use the whole to find a given part

Find the percentage of an amount (Mental methods)

The **whole** represents 100%



10% = $\frac{1}{10}$ of the whole

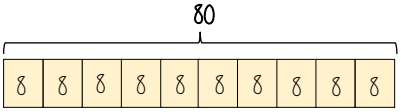
10% = $\frac{1}{10}$ of the whole

50% = $\frac{5}{10}$ = $\frac{1}{2}$ of the whole

20% = $\frac{2}{10}$ = $\frac{1}{5}$ of the whole

5% = $\frac{1}{20}$ of the whole

Find 65% of 80



For bigger percentages it is sometimes easier to take away from 100%

Method 1

65% = 10% x 6 + 5%
= (8 x 6) + 4
= 52

Method 2

65% = 50% + 10% + 5%
= 40 + 8 + 4
= 52

Find the percentage of an amount (Calculator methods)

Using a multiplier

Find 65% of 80

Fraction, decimal, percentage conversion

65% = $\frac{65}{100}$ = 0.65 ← The multiplier

0.65 x 80 = **52**

Using the percent button

Find 65% of 80

This brings up the % button on screen
You will see 65%

Type 65

Press SHIFT ((%)

Press × 80 and then press =

You can also use the calculator to support non calculator methods and find 1% or 10% then add percentages together

"of" can represent 'x' in calculator methods

YEAR 7 – PLACE VALUE AND PROPORTION...

FDP equivalence

@whisto_maths

What do I need to be able to do?

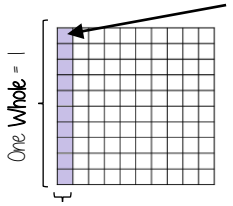
By the end of this unit you should be able to:

- Convert fluently between fractions, decimals & percentages

Keywords

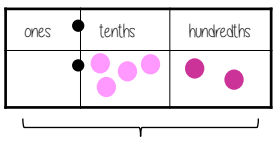
Fraction: how many parts of a whole we have
Decimal: a number with a decimal point used to separate ones, tenths, hundredths etc.
Percentage: a proportion of a whole represented as a number between 0 and 100
Place value: the numerical value that a digit has decided by its position in the number
Placeholder: a number that occupies a position to give value
Interval: a range between two numbers
Tenth: one whole split into 10 equal parts
Hundredth: one whole split into 100 equal parts
Sector: a part of a circle between two radius (often referred to as looking like a piece of pie)
Recurring: a decimal that repeats in a given pattern

Tenths and hundredths



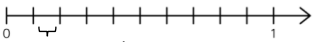
One **hundredth** (one whole split into 100 equal parts) = $\frac{1}{100}$ = 0.01

One **tenth** (one whole split into 10 equal parts) = $\frac{1}{10}$ = 0.1



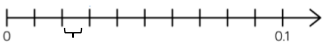
0 ones, 5 tenth and 2 hundredths
0 + 0.1 + 0.1 + 0.1 + 0.1 + 0.1 + 0.01 + 0.01
= 0 + 0.5 + 0.02
= **0.52**

On a number line



One whole – split into 10 equal parts

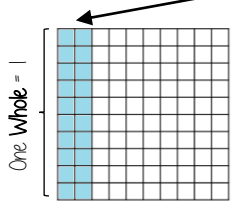
One tenth = $\frac{1}{10}$ = 0.1

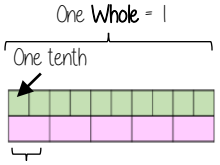


One tenth – split into 10 equal parts

One hundredth = $\frac{1}{100}$ = 0.01

Fifths

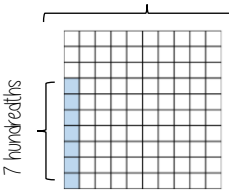




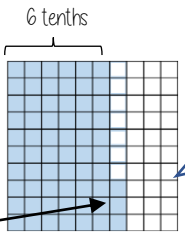
One **fifth** (one whole split into 5 equal parts) = $\frac{1}{5}$ = 0.2

Percentages on a hundred grid

100% = a whole = 100 hundredths



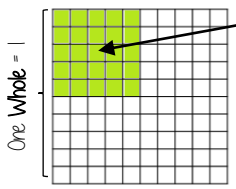
7 hundredths
7 out of 100
7%

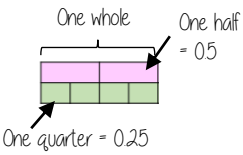


6 tenths and 3 hundredths
63 hundredths
63%

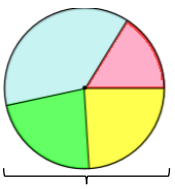
Quarters

One **quarter** (one whole split into 4 equal parts) = $\frac{1}{4}$ = 0.25





Simple pie charts



A pie chart has 360° so all FDP calculations are out of 360

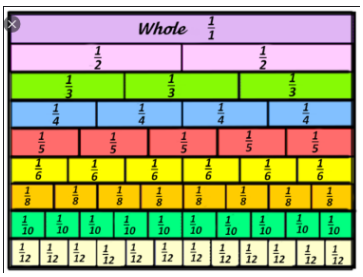
Split into 10 parts = 10% = 36°

Split into 2 parts = 50% = 180°

Split into 5 parts = 20% = 72°

Equivalent fractions

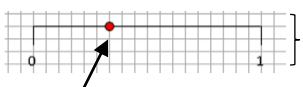
Represent equivalence with fraction walls



Fractions – on a diagram

The denominator is represented by EQUALLY sized parts – this is split into quarters

Fractions – on a number line



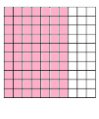
This point is at the 6th part
6 is the **numerator**

One whole split into 18 equal parts
18 is the **denominator**

$\frac{6}{18} \leftarrow \frac{3}{9} \leftarrow \frac{1}{3}$

Convert FDP

$\frac{70}{100}$ → This also means 70 ÷ 100 → 70 out of 100 squares → 70 "hundredths" = 7 "tenths" = 0.7



→ 70 hundredths = 70%

Using a **calculator**

→ S⇔D → Convert to a decimal

This will give you the answer in the simplest form

× 100 converts to a percentage

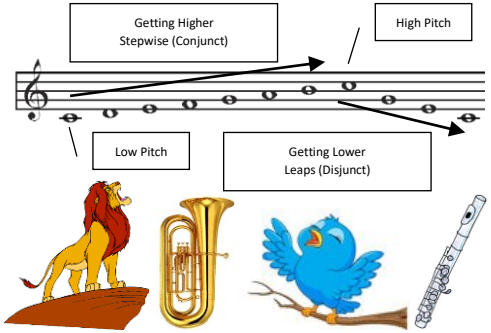
Be careful of recurring decimals
e.g $\frac{1}{3}$ = 0.3333333 = $0.\dot{3}$
The dot above the 3

BUILDING BRICKS

Exploring the Elements of Music

A. Pitch

The **highness** or **lowness** of a sound.



B. Tempo

The **speed** of a sound or piece of music.

FAST: *Allegro, Vivace, Presto*
SLOW: *Andante, Adagio, Lento*
GETTING FASTER – *Accelerando (accel.)*
GETTING SLOWER – *Ritardando (rit.) or Rallentando (rall.)*

C. Dynamics

The **volume** of a sound or piece of music.

VERY LOUD: *Fortissimo (ff)*
LOUD: *Forte (f)*
QUITE LOUD: *Mezzo Forte (mf)*
QUITE SOFT: *Mezzo Piano (mp)*
SOFT: *Piano (p)*
VERY SOFT: *Pianissimo (pp)*

GETTING LOUDER: *Crescendo (cresc.)*
GETTING SOFTER: *Diminuendo (dim.)*

D. Duration

The **length** of a sound.

SHORT → **LONG**

E. Texture

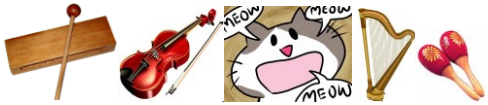
How much sound we hear.

THIN TEXTURE: *(sparse/solo)* – small amount of instruments or melodies.

THICK TEXTURE: *(dense/layered)* – lots of instruments or melodies.

F. Timbre or Sonority

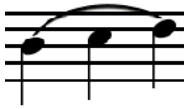
Describes the **unique sound or tone quality** of different instruments voices or sounds.



Velvety, Screechy, Throaty, Rattling, Mellow, Chirpy, Brassy, Sharp, Heavy, Buzzing, Crisp, Metallic, Wooden etc.

G. Articulation

How individual notes or sounds are **played/techniques**.

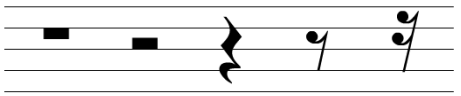


LEGATO – playing notes in a long, smooth way shown by a **SLUR**.

STACCATO – playing notes in a short, detached, spiky way shown by a **DOT**.

H. Silence

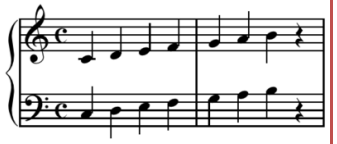
The opposite or absence of sound, **no sound**. In music these are **RESTS**.



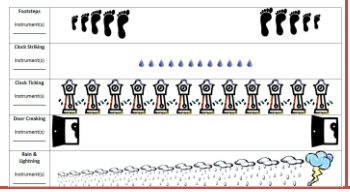
I. Notation

How music is **written** down.

STAFF NOTATION – music written on a **STAVE** (5 lines and spaces)



GRAPHIC NOTATION/SCORE – music written down using shapes and symbols to represent sounds.



J. How Music Works

Music can create an **atmosphere** or **ambience** *e.g., supermarkets and restaurants*.

Music can create an **image** *e.g., in response to art, a story, a poem, a character, a situation* – this is called **PROGRAMME MUSIC**.

Music can be **calming** *e.g., end of an evening in clubs and bars*.

Music can be used for **spiritual reasons** *e.g., worship, meditation, reflection, hymns and chants, yoga, and spiritual reflection*.

Music can be used for **commercial** purposes *e.g., advertising, TV themes*.

PSHE- Knowledge organiser- Y7 Term 2

Skill: Applying knowledge to real life situation

Living in the wider world	CEIAG	• CEIAG: Careers Education, Information, Advice and Guidance • career: an occupation undertaken for a significant period of a person's life and with opportunities for progress. • Job sector: a part of the economy that includes certain kinds of jobs. • Skills: the ability to do something well. • Transferable skills: skills you can take along with you from job to job. • competencies: the ability to do something successfully or efficiently. • CV: a brief account of a person's education, qualifications, and previous occupations, typically sent with a job application.
Health and well being	The body	• health: a state of complete physical, mental and social well being and not merely the absence of disease or infirmity. • healthy diet: having balanced meals that have the correct nutritional content for our bodies needs. • obesity: weighing at least 30 percent more than your ideal weight • anorexia: an obsessive desire to be thin. • At least one hour of physical activity a day means working out a bit of a sweat and getting slightly out of breath for at least 1 hour. • Drug: a medicine or other substance which has a physiological effect when ingested or otherwise introduced into the body. • Drugs are classified into groups: groups A, B, C, legal. • Even legal drugs are dangerous. • Dealing and/ or possessing drugs from groups A,B,C is a criminal offence and therefore punishable by law.

Remember!

- We will be open and honest, but not discuss directly our own and others personal/ private life.
- Your teacher will not repeat what is said in the room except if she/he is concerned we are at risk.
- It is ok to disagree but we will not judge.
- Taking part is important but we have the right to pass.
- We will not make assumptions and we will listen to others' point of view.
- We know that there are no stupid questions but we will use appropriate language.
- If we need further help or advice, you know you can talk to your teachers, form tutor and SSOs.

CHAPTER 2:

PROPHECY AND PROMISE

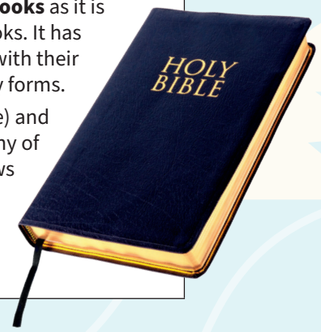
Knowledge organiser

Key vocabulary	
revelation	The way in which God is made known to humans, which Catholics believe is most perfectly done through Jesus.
Dei Verbum	The Latin phrase for 'Word of God'; also a document from the Second Vatican Council explaining how Jesus is the Word of God.
scripture	The holy book(s) of a religion; in Christianity it is the Bible.
tradition	Also known as Apostolic Tradition, these are actions and teachings of Jesus faithfully passed on from one generation of bishops to the next.
magisterium	From the Latin term *magister*, meaning teacher or master; it is the authority of the Church to teach.
inspired	'God breathed'; the belief that the Holy Spirit guides an individual to act or write what is good and true.
canon	the agreed list of books that make up the Catholic Bible
Old Testament	The books of the first half of the Bible showing the creation of the world and God's relationship with the Jewish people.
New Testament	The books of the second half of the Bible which tell the story of Jesus' life, ministry and death, and the establishment of the early Church.
Hebrew, Aramaic, Greek	Languages spoken in the area where Jesus grew up; some books of the Bible were written in these languages.
Tanakh	The Jewish Bible.
Liturgy of the Word	The part of Mass where the word of God is proclaimed (announced).

OPTIONS	
Artistic expression	Art is often used in religion to express scripture in a beautiful and engaging way, for example **The Book of Kells**, which is an ancient and beautiful handwritten book that contains the illuminated Gospels.
Lived religion	**Biblical idioms** have developed over time to become part of everyday language in the UK. Their presence reflects how influential the Bible has been in the UK. They are used to enhance everyday language and to express deeper meanings in a more interesting way.

The Bible

- **Bible references** are made up of book, chapter and verse. They help Catholics to find specific passages.
- The Bible is **read in translation**, which means that it is not usually read today in the original languages it was written in (Hebrew, Aramaic and Greek), as most people do not speak these languages now.
- Catholics believe the Bible's writers were **inspired by the Holy Spirit**, so the true author of the Bible is God.
- The Bible is like a **library of books** as it is made up of many smaller books. It has around 40 different authors, with their own backgrounds and literary forms.
- **The Tanakh** (the Jewish Bible) and the **Old Testament** share many of the same books, however Jews and Christians arrange and interpret them differently.



How is God's message revealed to Catholics?

Scripture

- The Bible is also known as **sacred scripture**. Christians believe it is how God reveals information that will aid humanity's salvation.
- Together, the Old Testament and New Testament explain the **history of salvation**.
- The **Old Testament** reveals prophecies about Jesus and key information about God's plan for salvation. In the **New Testament**, the prophecies and promises in the Old Testament are fulfilled through Jesus.
- The Catechism teaches that the Old Testament has 'intrinsic value', meaning that it is essential and valuable in its own right.
- Catholics believe scripture is without error, which means that through it God speaks to humans and gives them key messages about salvation.

Tradition

- *Dei Verbum 9* teaches that sacred tradition is just as important to Catholics as sacred scripture. Both are seen as the **word of God**.
- Tradition comes from the words and actions of the **apostles**, who were given the **Holy Spirit** at Pentecost. This gave them authority.
- Tradition has developed teachings on the sanctity of life, the sacraments, the Creeds and the Mass.
- Tradition is alive, therefore as the Church grows and changes, so does tradition.

The magisterium

- The magisterium is the **teaching authority** of the Catholic Church, which has been given to the Pope and the bishops so they can faithfully and authoritatively teach Catholics how to follow the word of God.
- The authority was given to **St Peter and the apostles** who founded the early Church and started sacred tradition.
- This authority is passed down to **every Pope and the bishops**, who use it to teach the word of God.

How is scripture used by Catholics today?

- The Catholic Church uses scripture as the foundation of Mass. In the **Liturgy of the Word**, Catholics hear Bible readings that help them to feel closer to God and to understand what God expects of them.
- Catholics use scripture in prayer, for example in the **Rosary**, which is connected to key events in the Gospels. Catholics meditate on events in the Gospels when they pray the Mysteries of the Rosary.

Science – Year 7 – Term 2 part 1 – Building blocks of matter

An element is a substance that cannot be broken down into other substances. The smallest part of an element that can exist is an atom.

Each element is represented by a symbol. The first letter of the symbol is always capitalised, any following letters are lower case.

The symbols for the elements are arranged on the periodic table.

Elements are arranged into groups based on their properties. Those with similar properties are found in the same group.

Metals are found on the left of the stepped line, and non-metals on the right. However, some elements, particularly those close to the line have properties of both.

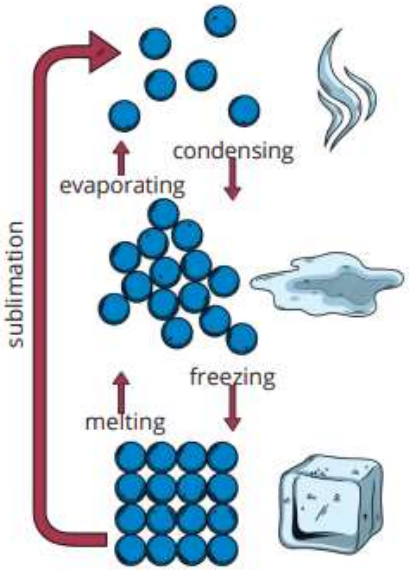
There are three main states of matter: **solid**, **liquid** and **gas**.

All matter is made up of tiny parts called particles. How they are arranged determines the state of matter and the properties of the material.

	Solid	Liquid	Gas
particle model diagram			
particle arrangement	regular structure no space between particles	irregular structure very little space between particles	irregular structure large space between particles
volume and shape	fixed volume fixed shape	fixed volume shape changes to fill bottom of container	volume increases to fill capacity shape changes to fill capacity
able to flow	no (forces between particles are very strong and hold them in fixed positions)	yes (forces between particles are weak and particles slide over one another)	yes (forces between particles are very weak and particles move randomly and rapidly)
density	high cannot be compressed (particles are already tightly packed)	high cannot be compressed (particles are already tightly packed)	low can be compressed (particles are forced closer together)
particle energy levels	low (particles vibrate around a fixed point only)	moderate (particles can move and flow but slowly)	high (particles moving rapidly and freely)
examples	wood, metal, stone, plastic	water, milk, bleach, acid	air, oxygen, carbon dioxide

The arrangement of particles changes when the substance changes state.

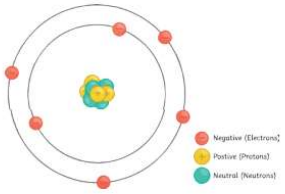
Sublimation is when a solid changes to a gas, without going through the liquid phase.

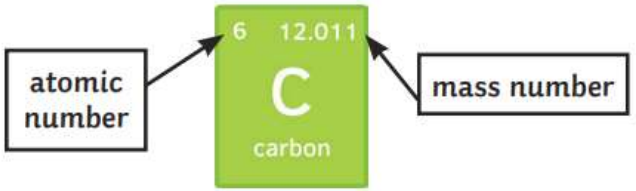


Atoms

Contained in the nucleus are the **protons** and **neutrons**. Moving around the nucleus are the **electron** shells. They are negatively charged.

Particle	Relative Mass	Charge
proton	1	+1
neutron	1	0
electron	Very small	-1





Overall, atoms have no charge; they have the same number of protons as electrons. An ion is a charged particle - it does not have an equal number of protons to electrons.

Atomic Number and Mass Number

Gas pressure is the force exerted by the gas particles on the wall of the container it is in. The more frequently air particles hit the walls, the higher the pressure rises.

Gas pressure is affected by:

- amount of gas;
- volume of container;
- temperature.

High gas pressure can be created by a high volume of particles in a small space, or with a high temperature.

An inflated balloon will shrink if placed in ice water and expand when placed in hot water.

Science – Year 7 – Term 2 part 2 – Chemistry

Dissolving is the process of mixing a **soluble solute** into a solvent until it is fully incorporated to create a **solution**.

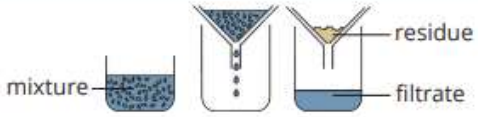
Solutes dissolve faster with increased **temperature**, greater **surface area** and **stirring**.

soluble – able to be dissolved

solvent – the substance that something dissolves in

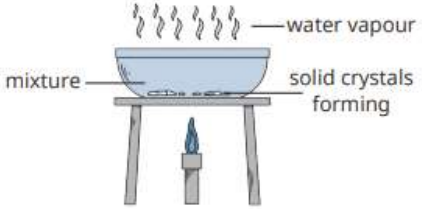
solute – the substance that is dissolved

solution – a liquid containing a dissolved solid or another liquid



This method is used to separate an **insoluble solid** from a **liquid**. The solution is passed through a filter paper and a funnel.

The **residue** remains in the filter paper, and the part which passes through the filter is called the **filtrate**. A mixture of sand and water can be separated by filtration.

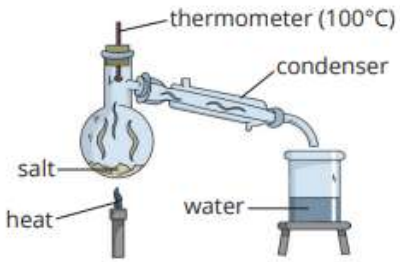


This method is used to separate a **soluble solid** from a **solvent**. The solution is heated, the liquid evaporates and the solid crystallises.

If the **evaporation** and **crystallisation** occur quickly, the crystals formed will grow rapidly and will be small.

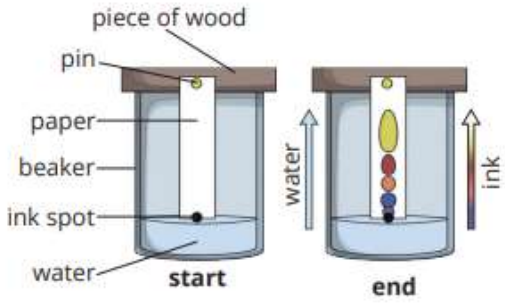
If it can occur slowly, such as on a windowsill, then the crystals will have more time to form and be larger in size.

A solution of salt water can be separated using the evaporation method.



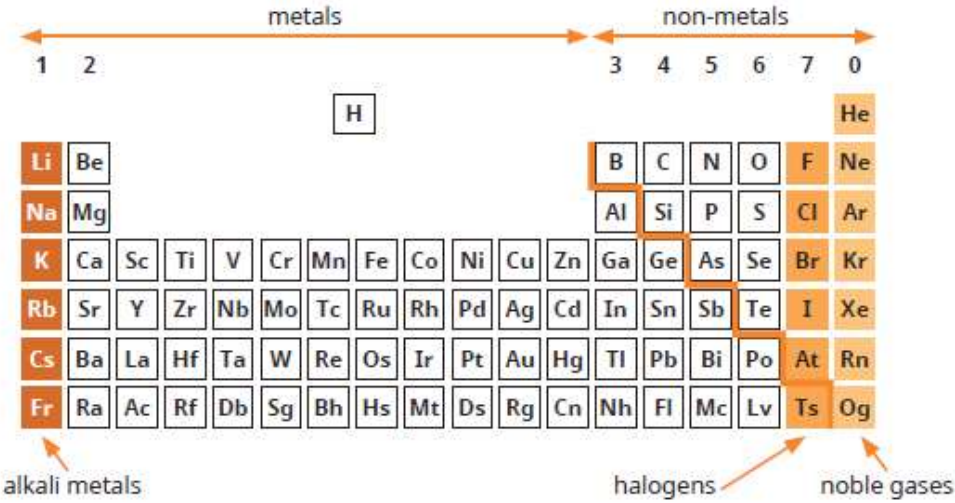
This method is used to separate a solvent from a solution. It can separate the same type of solution as in evaporation, e.g. salt water, but retrieving the other component of the mixture.

As the water is **heated** and evaporates from the flask, it flows upwards and into the **condenser**. The condenser is surrounded by cool water which causes the water vapour to **condense** back into a liquid, this flows down the tube and into the beaker. The water collected in the beaker is **distilled water**.



Chromatography can be used to separate, for example, different dyes in ink. The colours are separated because they have varying **solubilities**.

The separate inks are carried different distances up the **stationary phase** (filter paper) by the **mobile phase** (solvent).



Properties of Metals	Properties of Non-Metals
• shiny • good conductor of heat • good conductor of electricity • sonorous • oxides form alkaline solutions • high density • malleable • ductile	• dull • poor conductor of heat • poor conductor of electricity • not sonorous • oxides form acidic solutions • low density • brittle

Properties of Alkali Metals	Properties of Halogens
• solids at room temperature (melting and boiling points decrease moving down the group) • very reactive (reactivity increases moving down the group) • good conductors of heat and electricity • soft • shiny when cut • low density	• some solids, a liquid and some gases at room temperature (melting and boiling points increase moving down the group) • very reactive (reactivity decreases moving down the group) • poor conductors of heat and electricity • solids are brittle • low density