



# Knowledge Organisers

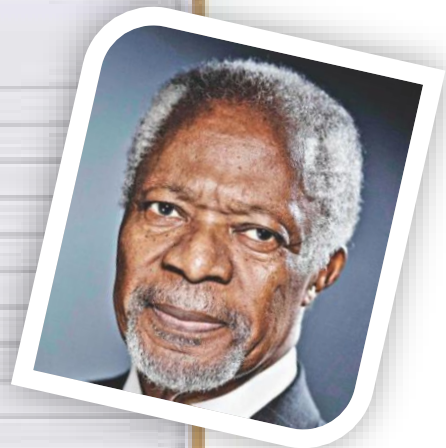
“I have come that they may have life and have it to the full”

*John 10: 10*

## Year 7 Term 1

**You MUST bring this every day for every lesson. It must be placed on your desk at the start of each lesson.**

“Knowledge is power.  
Information is liberating.  
Education is the premise of  
progress, in every society, in  
every family.” Kofi Annan



Name: \_\_\_\_\_

Form: \_\_\_\_\_



look



say



cover



write



check



## Knowledge Organisers at St John Fisher Catholic School

### Why do we have Knowledge Organisers?

Knowledge Organisers show you the key information for that particular topic of study. It is the 'key take-aways' of what knowledge you will need to know to be successful in this topic. It will give you an excellent understanding of the topic you are studying and the expectations.

### How do I use it?

Your teachers will use your knowledge organisers with you, explained in the section below, but you can also use it to support your understanding of the topic and develop further knowledge. You will have a test at the end of each unit of study and an end of year exam which will cover all that you have learnt therefore it is important that this new knowledge is embedded so that you can recall it later.

Use the Look, Say, Cover, Write, Check system to learn the information on your organisers. Complete any support/challenge tasks outlined. Research tells us that this method of practising is a good way to remember the knowledge. Over time, you will build up this knowledge and be able to recall it.

Use the Knowledge Organiser when completing class and homework especially with key vocabulary.

### How will my teachers use it?

Your teachers may set homework to learn parts of the Knowledge Organiser or set tasks from what is on there. You will be expected to complete between 30 minutes – 45 minutes of homework for each subject according to the homework timetable.

Your teachers will use the Knowledge Organiser in the lesson to support the new knowledge being taught so you must always keep this booklet with you and put on your desk at the start of each lesson.

You may be given low stake quizzes in your lessons which will test your recall of the current knowledge but also previous knowledge as the year progresses.

### What do I do if I lose it?

All Knowledge Organisers are on the school website. However, you can purchase a copy at student services if you lose this.

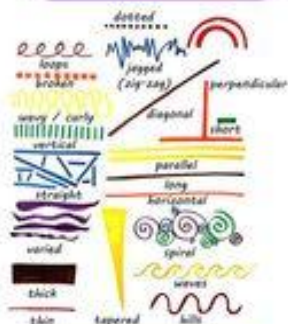


# The Formal Elements of Art

## Line

Line is the path left by a moving point.  
For example a pencil or a brush dipped in paint.  
A line can take many forms.

**Question:**  
What materials could you use to make different types of lines?



## Colour

Red, yellow and blue are primary colours, which means they can't be mixed using any other colours.

Two primary colours mixed together make a secondary colour.

In theory, all other colours can be mixed from these three colours.

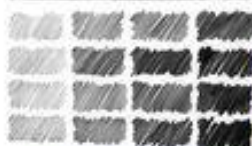


## Tone

Tone refers to the lightness or darkness of something.

Tone and shading can be used to make 2D look 3D, giving it form.

**Question:**  
How can you change the tone of a colour?



## Shape

A shape is an area enclosed by a line. It could be just an outline or it could be shaded in.

Shapes can be either geometric, like a circle, square or triangle, or irregular.



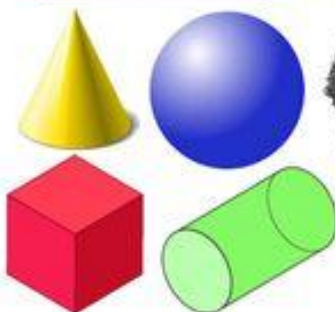
**Question:** How many 3D shapes can you name?

## Form

Form is a three dimensional shape, such as a cube, sphere or cone.

Sculpture and 3D design are about creating forms.

**Question:** How many 3D shapes can you name? How many can you draw accurately?



## Texture

Texture Describes the surface quality of something.

Actual texture really exists.

Visual texture is created using marks to represent texture.



## Pattern

Pattern is a design that is created by repeating lines, shapes, tones and colours.

A design which keeps occurring is called a motif.

Notice other patterns in your life: breathing, music, math, PE, nature, man-made.



## Seven formal elements

The art elements are line, shape, form, tone, texture, pattern and colour.

They are often used together, and how they are organised in a piece of art determines what the finished piece will look like.

### CHECKLIST:

Can you use the formal elements to write / talk about an artists work?

Can you use the formal elements to write / talk about your own work?



# Decorative Techniques

## Fabric crayon

Press hard with the fabric crayon, blending and fading to develop depth within your work. Iron in between newspaper to fix to the fabric permanently.



## Applique

Using multiple fabrics to layer and develop a design/image in a collage style. The fabric will add texture and colour to your work. The fabric can be hand or machine sewn on.



## Hand Embroidery

"You do not need to know hundreds of stitches. But you need to use the ones you do know well!"



Basic hand stitches:

- \*Running stitch
- \*Back stitch
- \*Satin stitch
- \*Seed stitch
- \*French knots

# Year 7 Art -Textiles Knowledge Organiser

## Tie Dye

Tie dye is a resist dyeing technique. Fabric is folded, twisted, pleated or crumpled and secured with elastic bands. Dye is then added to the fabric.

The elastic bands act as a resist to the dye, resulting in a pattern when they are removed.



Developing

Shape, Form, Space	Tone	Pattern/Texture	Line	Colour
Closed	Bright	Repeated	Fluent	Bright/Bold
Open	Dark	Uniform	Rough	Primary/Secondary
Distorted	Faded	Geometric	Controlled	Tertiary
Flat	Smooth	Random	Powerful	Radiant
Organic	Harsh	Symmetrical	Strong	Vivid
Deep	Contrasting	Soft	Geometric	Dull
Positive	Intense	Irregular	Angular	Contrasting
Negative	Sombre	Uneven	Delicate	Monochrome
Foreground	Grey	Bumpy	Flowing	Harmonious
Background	Strong	Rough	Simple	Complementary
Composition	Powerful	Smooth	Broken	Natural
Elongated	Feint	Spiky	Interrupted	Earthy
Large/Small	Light/Medium/Dark	Broken	Rounded	Saturated
2D/3D	Dramatic	Grid	Overlapping	Luminous

# Textile Artists

## Helen Wells

Is a British artist celebrated for her vibrant , multi layered abstract art . Her art features motifs observed in nature or shapes. She is fascinated by the interplay of colours, shapes and patterns



## Carol Saxby

She loves mixed media, combining a variety of techniques. She is interested Natural and eco dyeing. She is inspired by her home town of St Ives. The ocean, the beach, pebbles, seaweed, shells.



## Elaine Carlton

Is a textile artist who has always loved creating with fabrics. Much of her inspiration comes from her travels especially the sea and the beaches .





# Year 7 How Computers Work

## Summary of the Unit

E-safety refers to staying safe online, this includes the use of the internet, social media sites and gaming.

Computers require input hardware, processing hardware and output hardware. The hardware that defines a computer is the CPU and memory. Without these a computer could not function. The CPU and memory work together to run programs.

## Input devices

An input device is any piece of computer hardware used to provide data to a computer system. Examples include:

- Keyboard
- Mouse
- Scanner
- Microphone

## Storage devices

A storage device is a piece of computer equipment which can be used to store data. Examples include:

- Hard disk drive
- USB stick
- Memory Card

## Output devices

An output device is any piece of computer hardware used to communicate the results of data that has been processed. Examples include:

- Monitor
- Printer
- Speaker
- Plotter

## Websites

Learn parts of computer using these websites:

- [www.bbc.co.uk/bitesize/guides/zxb72hv/revision/1](http://www.bbc.co.uk/bitesize/guides/zxb72hv/revision/1)
- [www.teach-ict.com/gcse\\_new/computer%20systems/hardware\\_software/miniweb/index.htm](http://www.teach-ict.com/gcse_new/computer%20systems/hardware_software/miniweb/index.htm)

## Keywords

Hardware	The physical parts of a computer system, eg a graphics card, hard disk drive or CD drive.
CPU	Central Processing Unit - the brains of the computer that processes program instructions. Also called a microprocessor.
RAM	Random access memory, stores currently running instructions, Volatile.
ROM	Read only memory, stores boot-up, non-volatile
Embedded systems	An embedded system is a small computer that forms part of a larger system, device or machine.
LAN	Local area network, computers connected to each other. Restricted to a small geographical area
WAN	Wide area network, WAN is over a large geographical area

## Top tips for staying safe online

- 1 Don't talk to strangers
- 2 Don't give out personal information
- 3 Make sure all social media accounts are set to private.
- 4 Don't meet anyone online.







# Year 7 Spreadsheets

## Summary

Spreadsheets are used to store information and data. Once we have our information in a spreadsheet we can run powerful calculations, make graphs and charts and analyse patterns.  
Microsoft Excel is a software program that allows users to organise, format and calculate data with formulas.

## Common formulas and functions

+	Add	=A1+B2
-	Subtract	=B1-B4
/	Divide	=B4/C2
*	Multiple	=B6*B2
=SUM	Adds a range of cells together	=SUM(A1:A10)
=AVERAGE	Finds an average for a range of cells	=AVERAGE(B1:b6)
=MIN	Returns the smallest value in a range	=MIN(B1:B7)
=MAX	Returns the highest value in a range	=MAX(B1:B7)

## Uses of Spreadsheets

Uses of spreadsheets:

- Budget tracker
- Stock tracking of a business
- Money use in a business

Jobs that use spreadsheets:

- Administrative Assistants
- Financial Analysts
- Retail Store Managers
- Accountants

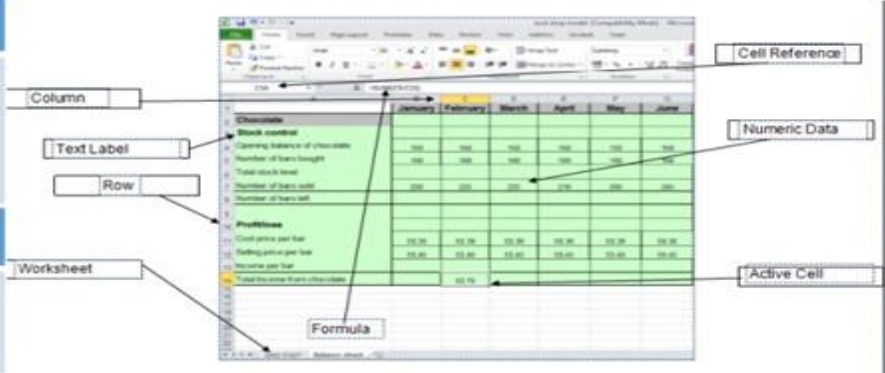
## Websites

Learn spreadsheets using these websites:

- [www.udemy.com/course/useful-excel-for-beginners/](http://www.udemy.com/course/useful-excel-for-beginners/)
- [www.w3schools.com/EXCEL/index.php](http://www.w3schools.com/EXCEL/index.php)

## Keywords

<b>Ascending</b>	arranged in a series that begins with the least or smallest and ends with the greatest or largest
<b>Autofill</b>	a software function that automatically enters data in spreadsheets
<b>Cell Reference</b>	The name given to a cell to uniquely identify it. E.g. E4
<b>Formula</b>	Simple calculations that normally start with =
<b>Autosum</b>	A feature that writes a SUM for you
<b>Chart</b>	Graphical representation of data.
<b>Cell</b>	Each little box in the grid is called a cell.
<b>Column</b>	The grid is made up of columns that are labelled with letters.
<b>Labels</b>	are pieces of text that we add to the spreadsheet to give us information about the numbers.
<b>Row</b>	The grid is made up of row that are labelled with numbers
<b>Descending</b>	arranged in a series that begins with the greatest or largest and ends with the least or smallest



look



say



cover



write



check



Length of Unit: 12 Weeks

**What are you going to learn this term?**

- Health and safety within the workshop.
- To select by name and use a variety of hand tools
- Marking and measuring create an accurate design to allow you to add the finishes of your choice.
- To make creative decisions, evaluate and refine as your design requires.

KEY WORDS	Health and Safety	Coping Saw	Measurement	User Centred
Design	Evaluate	Ergonomic	Finish	Template
Typography	Aesthetics	Sanding	Tenon saw	Grain

## Hardwoods



Comes from **deciduous** trees

This is a broad-leaved tree which loses its leaves in the winter.

Beech

Oak

Ash

Teak

## Softwoods



Comes from **coniferous** trees

This tree is an evergreen (green all year), needle-leaved, cone-bearing tree.

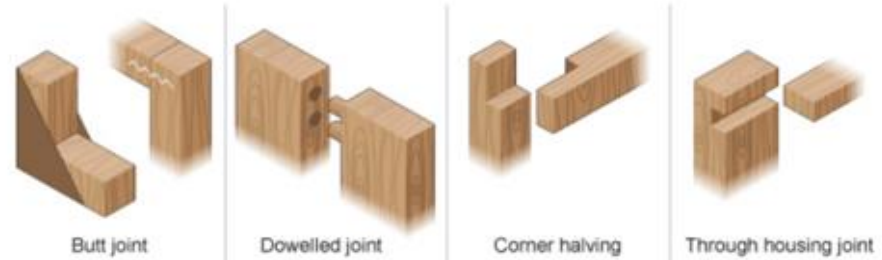
Pine

Spruce

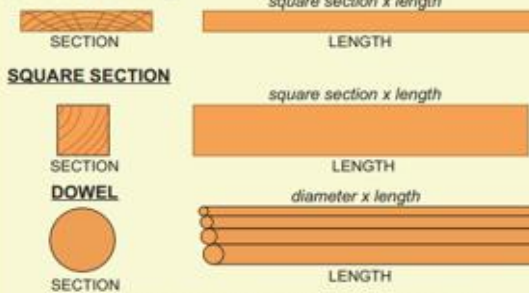
Cedar

Fir

### Simple frame joints



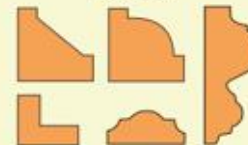
### BOARDS / PLANKS



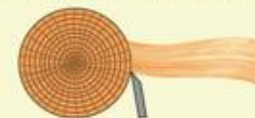
### SHEETS - FULL BOARD OR HALF BOARDS



### MOULDS



### ROTARY CUTTING OF VENEER



look



say



cover



write



check





### 8 tips for healthier eating

These eight practical tips cover the basics of healthy eating, and can help you make healthier choices.

1. Base your meals on starchy carbohydrates.
2. Eat lots of fruit and veg.
3. Eat more fish – including a portion of oily fish.
4. Cut down on saturated fat and sugar.
5. Eat less salt (max. 6g a day for adults).
6. Get active and be a healthy weight.
7. Don't get thirsty.
8. Don't skip breakfast.

### You will learn about

Hygiene and safety  
Knife skills  
Using the hob and the oven  
Accurate measuring of ingredients  
Healthy eating and nutrition.

To find out more, go to:

<https://bit.ly/2QzUMfe>



**Meals and snacks can be sorted into The Eatwell Guide food groups.**

### Composite/combination food - Lasagne

Pasta (lasagne sheets): **Potatoes, bread, rice, pasta or other starchy carbohydrates**

Onions, garlic and chopped tomatoes: **Fruit and vegetables**

Lean minced meat (or meat substitute): **Beans, pulses, fish, eggs, meat and other protein**

Cheese sauce made with milk and cheese: **Dairy and alternatives**

Olive/vegetable oil used to cook onions and mince: **Oil and spreads**

### The Eatwell Guide

- Comprises 5 main food groups.
- Is suitable for most people over 2 years of age.
- Shows the proportions in which different groups of foods are needed in order to have a well-balanced and healthy diet.
- Shows proportions representative of food eaten over a day.

### Key terms

**The Eatwell Guide:** A healthy eating model showing the types and proportions of foods needed in the diet.

**Hydration:** The process of replacing water in the body.

**Dietary fibre:** A type of carbohydrate found in plant foods.

**Composite/combination food:** Food made with ingredients from more than one food group.

### Task

Plan a menu for a day that applies the principles of The Eatwell Guide and the 8 tips for healthier eating. Make one of the dishes, complete a sensory evaluation and calculate the energy and nutrients provided using nutritional analysis.



look



say



cover



write



check







## PSHE- Knowledge organiser- Y7 Term 1

Skills: Communication

Cooperation

Managing feelings

Applying knowledge to real life situation

Themes	Topics	Key learning points
Health and well being	Transition 	<ul style="list-style-type: none"> <li>• <u>PSHE:</u> Personal Social Health and Economic Education</li> <li>• <u>Knowledge:</u> to have information on a topic</li> <li>• <u>Understanding:</u> to be able to explain information on a topic</li> <li>• <u>Skills:</u> The ability to do something well</li> <li>• Change is a normal and natural part of life and it is OK to feel more worried or anxious about some changes. There are things you can do to make changes feel better: be kind to yourself and ask for advice</li> </ul>
Living in the wider world	Citizenship: Community 	<ul style="list-style-type: none"> <li>• <u>community:</u> a group of people living in the same place or having a particular characteristic in common.</li> <li>• <u>citizen:</u> a legally recognized subject or national of a state or commonwealth, either native or naturalized.</li> <li>• <u>rights:</u> a moral or legal entitlement to have or do something.</li> <li>• <u>responsibilities:</u> something you are required to do as an upstanding member of a community.</li> <li>• <u>bullying:</u> the use of force, coercion, or threat, to abuse, aggressively dominate or intimidate.</li> </ul>

### 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.



## PSHE- Knowledge organiser- Y7 Term 2

Skill: Applying knowledge to real life situation

Living in the wider world	CEIAG	<ul style="list-style-type: none"> <li>• <u>CEIAG</u>: Careers Education, Information, Advice and Guidance</li> <li>• <u>career</u>: an occupation undertaken for a significant period of a person's life and with opportunities for progress.</li> <li>• <u>Job sector</u>: a part of the economy that includes certain kinds of jobs.</li> <li>• <u>Skills</u>: the ability to do something well.</li> <li>• <u>Transferable skills</u>: skills you can take along with you from job to job.</li> <li>• <u>competencies</u>: the ability to do something successfully or efficiently.</li> <li>• <u>CV</u>: a brief account of a person's education, qualifications, and previous occupations, typically sent with a job application.</li> </ul>
	Finance	<ul style="list-style-type: none"> <li>• <u>Money habits</u> are developed at a young age, and it's important to understand our attitudes towards money, spending and saving to help us make sensible decisions about our finances throughout our lives.</li> <li>• <u>Needs</u>: things that people require to survive</li> <li>• <u>Wants</u>: things that a person would like to have but are not needed for survival.</li> <li>• <u>Budget</u>: an estimate of income and expenditure for a set period of time.</li> <li>• <u>Value for Money</u>: the most advantageous combination of cost, quality and sustainability to meet customer requirements.</li> </ul>

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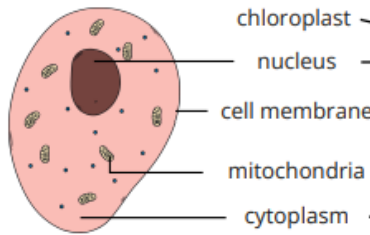
Health and well being	The body	<ul style="list-style-type: none"> <li>• <u>health</u>: a state of complete physical, mental and social well being and not merely the absence of disease or infirmity.</li> <li>• <u>healthy diet</u>: having balanced meals that have the correct nutritional content for our bodies needs.</li> <li>• <u>obesity</u>: weighing at least 30 percent more than your ideal weight</li> <li>• <u>anorexia</u>: an obsessive desire to be thin.</li> <li>• 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.</li> <li>• <u>During sleep</u>, your body is working to support healthy brain function and maintain your physical health. In children and teens, sleep also helps support growth and development. Getting inadequate sleep over time can raise your risk for chronic (long-term) health problems.</li> </ul>
RSE	Created by God to love and loved by God	<ul style="list-style-type: none"> <li>• We are created by God as one whole person, both body and soul.</li> <li>• Each of us are physically, mentally and emotionally unique.</li> <li>• <u>Puberty</u>: the process of physical changes through which a child's body matures into an adult body capable of sexual reproduction.</li> <li>• Puberty involves physical, emotional and sexual development.</li> <li>• <u>Self-esteem</u>: how we value and perceive ourselves.</li> <li>• Self-esteem can affect your confidence and decision-making.</li> <li>• Feelings can be misleading: we should not believe they are facts.</li> <li>• <u>Sexual intercourse</u>: reproductive act in which the male reproductive organ enters the female reproductive tract.</li> <li>• Sexual intercourse is more than just a physical act.</li> <li>• <u>Menstruation</u>: normal vaginal bleeding that occurs as part of a woman's monthly cycle</li> </ul>

### **Remember!**

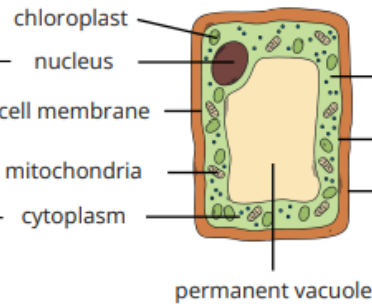
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# Science – Year 7 – Term 1 part 1 – Building blocks of life

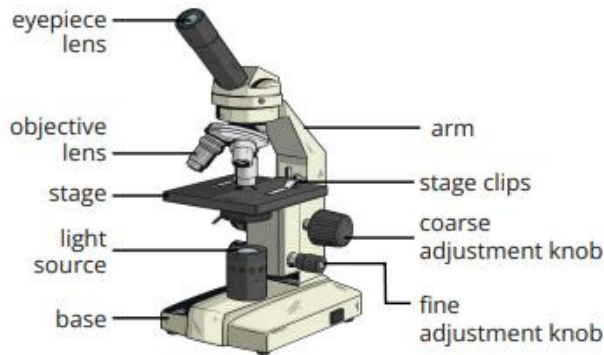
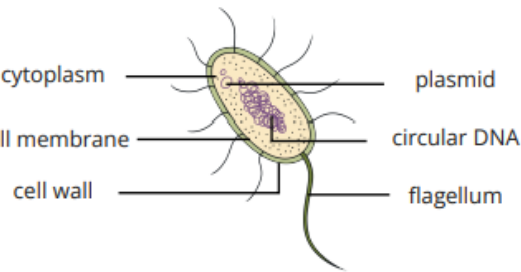
**Animal Cell**



**Plant Cell**



**Bacterial Cell**



## Using a Light Microscope

- Plug in the microscope and turn on the light.
- Place the slide on the stage and hold it in place with the stage clips.
- Turn to the objective lens with the lowest magnification.
- Look down the eyepiece lens and use the adjustment knobs to focus the specimen.
- Increase the magnification by turning to a higher power objective lens, then use the fine adjustment knob to bring the cells back into focus.



A **cell** is the smallest unit of a living organism. It contains structures needed to carry out life processes.



A **tissue** is a group of cells of the same type.



An **organ** is a group of different tissues working together to carry out a job.

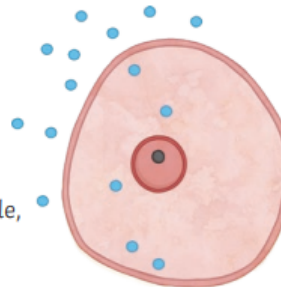


An **organ system** is a group of different organs working together to perform a particular function.

## Key Processes

**Diffusion** is the spreading out of particles from an area of higher concentration to an area of lower concentration.

**Cell membranes** are semi-permeable, only small molecules can get through.



**Cell Diffusion**

Sub-Cellular Structure	Function
nucleus	Controls the activities of the cell. It contains genetic material (DNA), which is packaged into structures called chromosomes.
circular DNA	The DNA of bacteria found free in the cytoplasm.
mitochondria	Contain the enzymes needed for aerobic respiration, which releases energy for the cell.
chloroplasts	Contain a pigment called chlorophyll, which absorbs light to provide energy for photosynthesis.
cell wall	Helps to strengthen the cell and provides support for the plant.
cell membrane	Controls the movement of substances into and out of the cell.
cytoplasm	A jelly-like substance that fills the cell, where most chemical reactions occur.
flagellum	A tail-like structure that allows bacteria to move around.
permanent vacuole	Filled with cell sap to keep the cell rigid to support the plant.
plasmids	Plasmids are small rings of DNA that code for specific features, such as antibiotic resistance.

**Photosynthesis** is a chemical reaction which takes place in plants. It converts **carbon dioxide** and **water** into **glucose** and **oxygen**. It uses **light** energy to power the chemical reaction, which is absorbed by the green pigment **chlorophyll**. This means that photosynthesis is an example of an **endothermic** reaction. The whole reaction takes place inside the **chloroplasts** which are small organelles found in plant cells.

Plants acquire the carbon dioxide via diffusion through the **stomata** of their leaves. The water is absorbed from the soil through the **roots** and transported to the cells carrying out photosynthesis, via the **xylem**.

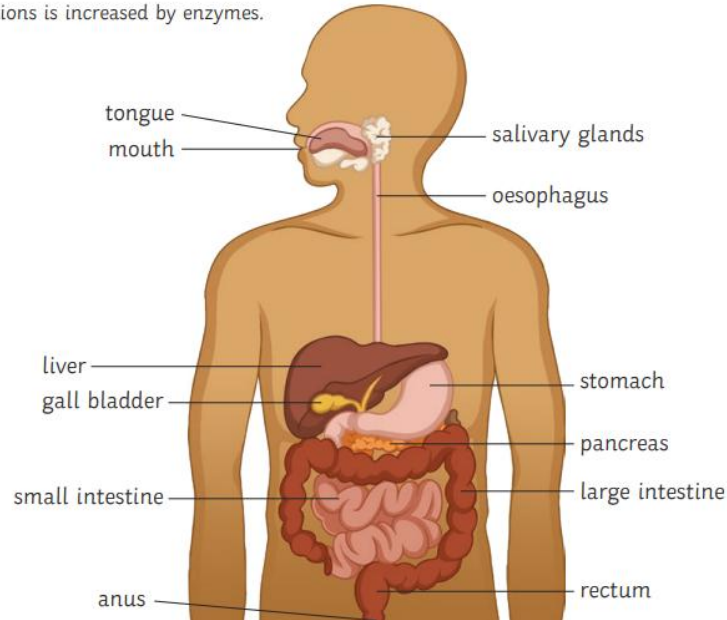


The glucose made in photosynthesis is used for respiration, stored as starch, fat or oils, used to produce cellulose or used to produce amino acids for protein synthesis.



# Science – Year 7 – Term 1 part 2 – Life Processes

The purpose of the digestive system is to break down large molecules into smaller, soluble molecules, which are then absorbed into the bloodstream. The rate of these reactions is increased by enzymes.



When a person exercises, their body (specifically their **muscles**) need much more energy. To release more energy, the amount of respiration reactions occurring has to increase.

The **heart** pumps faster and the **breathing** rate and breath volume all increase to supply more **oxygen** to the muscles via the bloodstream.

If the muscles are not receiving enough oxygen to keep up the demand needed by the respiration reactions, then **anaerobic** respiration begins to occur. This incomplete oxidation of the glucose produces **lactic acid**, which can build up in the muscles and results in an **oxygen debt**.

After long periods of exercise, the muscles can become fatigued and stop contracting. You might experience a pain commonly called a **stitch**.

## Enzymes

An enzyme is a biological **catalyst**; enzymes speed up chemical reactions without being changed or used up.



This happens because the enzyme lowers the **activation energy** required for the reaction to occur. Enzymes are made up of chains of amino acids folded into a globular shape.

Enzymes have an **active site** which the **substrate** (reactants) fits into. Enzymes are very specific and will only catalyse one specific reaction. If the reactants are not the complimentary shape, the enzyme will not work for that reaction.

Enzymes also work optimally at specific conditions of pH and temperature. In extremes of pH or temperature, the enzyme will **denature**. This means that the bonds holding together the 3D shape of the active site will break and the active shape will deform. The substrate will not be able to fit into the active site anymore and the enzyme cannot function.

Enzyme	Reactant	Product
amylase	starch	sugars (glucose)
protease	protein	amino acids
lipase	lipid	glycerol and fatty acids

The products of digestion are used to build new carbohydrates and proteins and some of the glucose is used for respiration.

**Bile** is produced in the **liver** and stored in the gall bladder. It is an **alkaline** substance which **neutralises** the hydrochloric acid in the stomach. It also works to **emulsify** fats into small droplets. The fat droplets have a higher **surface area** and so the rate of their digestion by lipase is increased.

**Respiration** is the chemical reaction which occurs inside the **mitochondria** of all living cells to release energy for living functions and processes, e.g. movement, warmth and building larger molecules for growth and repair. The reaction is **exothermic**, meaning that energy is released to the surroundings.

Respiration can be either **aerobic** (using oxygen) or **anaerobic** (without using oxygen).



In anaerobic respiration, the glucose is not completely oxidised. This means that there is less energy released than in aerobic respiration.



In plants and yeast, anaerobic respiration makes some different products. The reaction is also called fermentation and is used in bread-making and beer-brewing.







# YEAR 7 — APPLICATION OF NUMBER

## Solving problems with addition and subtraction

@whisto\_maths

### What do I need to be able to do?

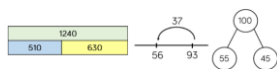
By the end of this unit you should be able to:

- Understand properties of addition/ subtraction
- Use mental strategies for addition/subtraction
- Use formal methods of addition/subtraction for integers
- Use formal methods of addition/subtraction for decimals
- Solve problems in context of perimeter
- Solve problems with finance, tables and timetables
- Solve problems with frequency trees
- Solve problems with bar charts and line charts

### Keywords

- Commutative:** changing the order of the operations does not change the result
- Associative:** when you add or multiply you can do so regardless of how the numbers are grouped
- Inverse:** the operation that undoes what was done by the previous operation (The opposite operation)
- Placeholder:** a number that occupies a position to give value
- Perimeter:** the distance/ length around a 2D object
- Polygon:** a 2D shape made with straight lines
- Balance:** in financial questions — the amount of money in a bank account
- Credit:** money that goes into a bank account
- Debit:** money that leaves a bank account

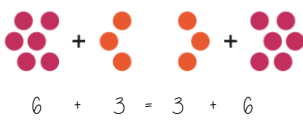
### Addition/ Subtraction with integers



Modelling methods for addition/ subtraction

- Bar models
- Number lines
- Part/ Whole diagrams

Addition is commutative



The order of addition does not change the result

Subtraction the order has to stay the same

$$360 - 147 = 360 - 100 - 40 - 7$$

- Number lines help for addition and subtraction
- Working in 10's first aids mental addition/ subtraction
- Show your relationships by writing fact families

Formal written methods

	H	T	O
	1	8	7
+	5	4	2

	H	T	O
	4	2	7
-	2	4	9

Remember the place value of each column  
You may need to move 10 ones to the ones column to be able to subtract

### Addition/ Subtraction with decimals

4	.	3	8
7	.	9	0
			+

0 can be used to fill empty places with value



If represents 1 instead of 100

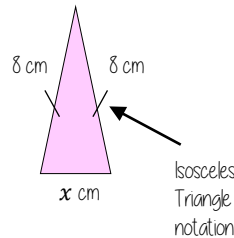
The decimal place acts as the placeholder and aligns the other values

$$5.43 + \frac{8}{10}$$

Revisit Fraction — Decimal equivalence  
 $5.43 + 0.8$

### Solve problems with perimeter

Perimeter is the length around the outside of a polygon



The triangle has a perimeter of 25cm  
Find the length of  $x$

$$\begin{aligned} 8\text{cm} + 8\text{cm} + x\text{cm} &= 25\text{cm} \\ 16\text{cm} + x\text{cm} &= 25\text{cm} \\ x\text{cm} &= 9\text{cm} \end{aligned}$$

### Solve problems with finance

$$\text{Profit} = \text{Income} - \text{Costs}$$

Credit — Money coming into an account

Debit — Money leaving an account

Money uses a two decimal place system  
14.2 on a calculator represents £14.20

Check the units of currency — work in the same unit

### Tables and timetables

Distance tables

London	Cardiff	Glasgow	Belfast
211			
556	493		
518	392	177	

This shows the distance between Glasgow and London  
It is where their row and column intersects

Bus/ Train timetables

Harton	1005	1045	1130
Bridge	1024	1106	1147
Aville	1051	1133	1205
Ware	1117	1202	1233

Each column represents a journey, each row represents the time the 'bus' arrives at that location

TIME CALCULATIONS — use a number line

Two-way tables

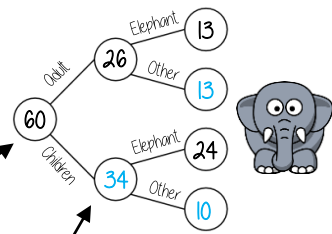
	H	T
H	HH	HT
T	TH	TT

Where rows and columns intersect is the outcome of that action

### Frequency trees

60 people visited the zoo one Saturday morning  
26 of them were adults. 13 of the adult's favourite animal was an elephant. 24 of the children's favourite animal was an elephant

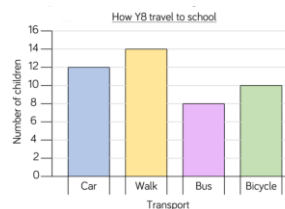
The overall total '60 people'



A frequency tree is made up from part-whole models  
One piece of information leads to another

Probabilities or statements can be taken from the completed trees  
e.g. 34 children visited the zoo

### Bar and line charts



Use addition/ subtraction methods to extract information from bar charts

e.g. Difference between the number of students who walked and took the bus  
Walk frequency — bus frequency

When describing changes or making predictions

- Extract information from your data source
- Make comparisons of difference or sum of values
- Put into the context of the scenario

# YEAR 7 — APPLICATION OF NUMBER

## Solving problems with multiplication and division

@whisto\_maths

### What do I need to be able to do?

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

- Understand and use factors
- Understand and use multiples
- Multiply/ Divide integers and decimals by powers of 10
- Use formal methods to multiply
- Use formal methods to divide
- Understand and use order of operations
- Solve area problems
- Solve problems using the mean

### Keywords

**Array:** an arrangement of items to represent concepts in rows or columns  
**Multiples:** found by multiplying any number by positive integers  
**Factor:** integers that multiply together to get another number.  
**Mil:** prefix meaning one thousandth  
**Centi:** prefix meaning one hundredth  
**Kilo:** prefix meaning multiply by 1000  
**Quotient:** the result of a division  
**Dividend:** the number being divided  
**Divisor:** the number we divide by

### Factors

●●●●● Arrays can help represent factors  
 5 x 2 or 2 x 5  
**Factors of 10**  
 1, 2, 5, 10  
 10 x 1 or 1 x 10  
 The number itself is always a factor

Some numbers have an ODD number of factors

**Factors of 4**  
 1, 2, 4  
**Factors of 36**  
 1, 2, 3, 4, 6, 9, 12, 18, 36  
 Be strategic - Lay factors out in pairs can help you not to miss any

### Multiples

Bar models can represent by something is a multiple. Eg 20 is a multiple of 4  
**Lowest Common Multiples**  
**LCM of 9 and 12**  
 9: 9, 18, 27, 36, 45, 54  
 12: 12, 24, 36, 48, 60  
 The first time their multiples match  
**LCM = 36**

### Multiply/ Divide by powers of 10

100s 10s 1s  
 3 x 100 = 300  
 0.03 x 100 = 3  
 Repeated multiplication and division by powers of 10 is commutative  
 ÷ 10 then ÷ 10 → ÷ 100

### Metric conversions

Useful Conversions

mm  $\xrightarrow{\div 10}$  cm  $\xrightarrow{\div 100}$  m  $\xrightarrow{\div 1000}$  km  
 $\xleftarrow{\times 10}$   $\xleftarrow{\times 100}$   $\xleftarrow{\times 1000}$   
 g  $\xrightarrow{\div 1000}$  kg  $\xrightarrow{\div 1000}$  L  
 $\xleftarrow{\times 1000}$   $\xleftarrow{\times 1000}$

### Multiplication methods

Less effective method especially for bigger multiplication  
**Multiplication with decimals**  
 Perform multiplications as integers  
 e.g. 0.2 x 0.3 → 2 x 3  
 Make adjustments to your answer to match the question: 0.2 x 10 = 2  
 0.3 x 10 = 3  
 Therefore 6 ÷ 100 = 0.06

### Division methods

**Short division**  
 3584 ÷ 7 = 512  
**Complex division**  
 ÷ 24 = ÷ 6 ÷ 4  
 Break up the divisor using factors  
**Division with decimals**  
 The placeholder in division methods is essential – the decimal lines up on the dividend and the quotient.  
 24 ÷ 0.02 → 24 ÷ 0.2 → 240 ÷ 2  
 All give the same solution as represent the same proportion  
 Multiply the values in proportion until the divisor becomes an integer

### Order of operations

Brackets  
 Indices or roots  
 Multiplication or division  
 Addition or subtraction  
 If you have multiple operations from the same tier work from left to right  
 e.g. 10 - 3 + 5 → 10 - 3 → 7 + 5  
 6 x 4 + 8 x 2  
 24 + 16 = 40

### Area problems

**Rectangle**  
 Base x Perpendicular height  
**Parallelogram/ Rhombus**  
 Base x Perpendicular height  
**Triangle**  
 $\frac{1}{2}$  x Base x Perpendicular height  
 A triangle is half the size of the rectangle it would fit in

### Mean problems

Mean – a measure of average. It gives an idea of the central value  
 Lilly, Annie and Ezra have the following cubes  
 24 in total  
 Finding the mean amount is the average amount each person would have if shared out equally  
 The mean number of blocks would be 8 each

# YEAR 7 — DIRECTED NUMBER

## Operations with equations and directed numbers

@whisto\_maths

### What do I need to be able to do?

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

- Perform calculations that cross zero
- Add/ Subtract directed numbers
- Multiply/ Divide directed numbers
- Evaluate algebraic expressions
- Solve two-step equations
- Use order of operations with directed number

### Keywords

**Subtract:** taking away one number from another.

**Negative:** a value less than zero.

**Commutative:** changing the order of the operations does not change the result

**Product:** multiply terms

**Inverse:** the opposite function

**Square root:** a square root of a number is a number when multiplied by itself gives the value (symbol  $\sqrt{\quad}$ )

**Square:** a term multiplied by itself.

**Expression:** a maths sentence with a minimum of two numbers and at least one math operation (no equals sign)

### Perform calculations that cross zero

Number lines are useful to help you visualise the calculation crossing 0

$4 - 6 = -2$

Use the number line to guide subtraction of 6

Start at 4

Find the difference between 6 and -4

From 6 to 0  
6  
From 0 to -4  
4  
10 beads between them

$-5 + 5 = 0$

Rearrangements of the same equation

$5 - 5 = 0$

### Add directed numbers

$2 + -4 = -2$

Zero pair  $(-1 + 1 = 0)$

Two  $-1$ 's left  $= -2$

$8 + -3 = 5$

Partitioning

$8 + -3 = 5$

$5 + 3 + -3 = 5$

Partition the value to create a zero pair calculation

Generalisation  $+ - = -$

Representations: Red dot = -1, Yellow dot = 1

### Subtract directed numbers

Representation for calculation

$2 - -1 = 3$

Take away one

Start with the representation of 2

$2 - -3 = 5$

Generalisation  $- - = +$

Representations: Red dot = -1, Yellow dot = 1

"Subtract" — means take away or remove

### Multiply/ Divide directed numbers

Two representations of the same calculation

$2 \times -3 = -6$

Negative, Negative calculation

$-2 \times -3$

This is the negative of  $2 \times -3$

$-2 \times -3 = 6$

The act of making counters into their negative is turning them over

Divisions are the inverse operations

### Evaluate algebraic expressions

$a = 5$   $b = -4$

$a^2 = 5^2$   $b^2 = (-4)^2$

$a^2 = 25$   $b^2 = 16$

With negative numbers the brackets are important so that it performs  $-4 \times -4$ .

Brackets around negative substitutions helps remove calculation errors

$2a - b = 2 \times 5 - (-4) = 10 + 4 = 14$

$3b - 2a = 3(-4) - 2(5) = -12 - 10 = -22$

### Two-step equations

Bar Model

$4x + 2 = 10$

$10 - 4x = 2$

Representing the same question (use fact families)

Function machine

$x \rightarrow x4 \rightarrow +2 \rightarrow 10$

Inverse operations to find x

Bar Model example: 10 divided into 4 x's and a 2, leaving 8.

### Use order of operations

Brackets

Indices or roots

Multiplication or division

Addition or subtraction

Remember square roots have a positive and negative value

Brackets around negative substitutions helps remove calculation errors

x	-3	-2	-1	0	1	2	3
-3	9	6	3	0	-3	-6	-9
-2	6	4	2	0	-2	-4	-6
-1	3	2	1	0	-1	-2	-3
0	0	0	0	0	0	0	0
1	-3	-2	-1	0	1	2	3
2	-6	-4	-2	0	2	4	6
3	-9	-6	-3	0	3	6	9



# YEAR 7 — LINES AND ANGLES

## Geometric reasoning

@whisto\_maths

### What do I need to be able to do?

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

- Understand/use the sum of angles at a point
- Understand/use the sum of angles on a straight line
- Understand/use equality of vertically opposite angles
- Know and apply the sum of angles in a triangle
- Know and apply the sum of angles in a quadrilateral

### Keywords

**Vertically Opposite:** angles formed when two or more straight lines cross at a point

**Interior Angles:** angles inside the shape

**Sum:** total, add all the interior angles together

**Convex Quadrilateral:** a four-sided polygon where every interior angle is less than  $180^\circ$

**Concave Quadrilateral:** a four-sided polygon where one interior angle exceeds  $180^\circ$

**Polygon:** A 2D shape made with straight lines

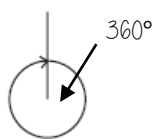
**Scalene triangle:** a triangle with all different sides and angles

**Isosceles triangle:** a triangle with two angles the same size and two angles the same size

**Right-angled triangle:** a triangle with a right angle

### Sum of angles at a point

The sum of angles around a point is  $360^\circ$



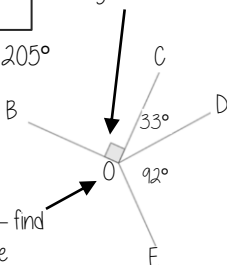
Find angle BOE

$$90^\circ + 33^\circ + 92^\circ = 205^\circ$$

$$360^\circ - 205^\circ$$

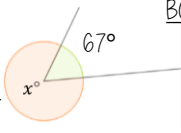
$$\text{BOE} = 155^\circ$$

Angle notation —  $90^\circ$



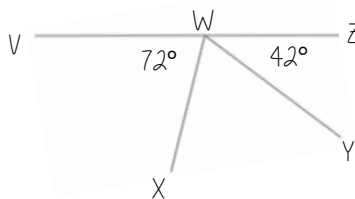
Angle notation — find this missing angle

$$360^\circ - 67^\circ = 293^\circ$$



### Sum of angles on a straight line

Adjacent angles that share a common point on a line add up to  $180^\circ$

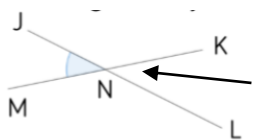


Find angle XWY

$$72^\circ + 42^\circ = 114^\circ$$

$$180^\circ - 114^\circ = 66^\circ$$

### Vertically opposite angles

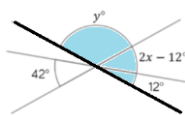


Angle JNM is vertically opposite to angle KNL

$$\text{JNM} = \text{KNL}$$

Vertically opposite angles are the same

Other angle rules still apply  
Look for straight line sums and angles around a point



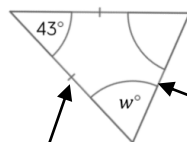
Form equations with information from diagrams

$$2x - 12 = 42$$

$$2x = 54$$

$$x = 27^\circ$$

### Sum of angles in triangles



The two base angles will be the same size

Look at triangle notation  
This indicates an isosceles triangle

$$\therefore 180 - 43 = 137$$

$$137 \div 2 = 68.5^\circ$$

A triangle can only have ONE right angle

Sum of interior angles in a triangle =  $180^\circ$



Have a go!

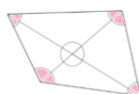
Tearing the corners from triangles forms a straight line which is therefore  $180^\circ$

### Sum of angles in quadrilaterals



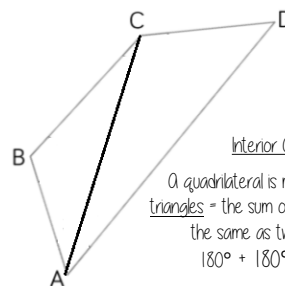
Convex Quadrilateral

Concave Quadrilateral



Interior angles are those that make up the perimeter (outline) of the shape

Sum of interior angles in a quadrilateral =  $360^\circ$

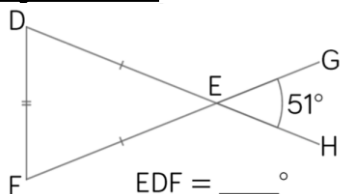


Interior Angles

A quadrilateral is made up of two triangles = the sum of interior angles is the same as two triangles  
 $180^\circ + 180^\circ = 360^\circ$

### Angle Problems

Split up the problem into chunks and explain your reasoning at each point using angle notation



EDF =  $\underline{\hspace{1cm}}$   $^\circ$

1. Angle DEF =  $51^\circ$  because it is a vertically opposite angle DEF = GEH

2. Triangle DEF is isosceles (triangle notation)  $\therefore$  EDF = EFD and the sum of interior angles is  $180^\circ$   
 $180^\circ - 51^\circ = 129^\circ$   $129^\circ \div 2 = 64.5^\circ$

3. Angle EDF =  $64.5^\circ$

Keep working out clear and notes together

# YEAR 8 - DEVELOPING GEOMETRY...

## Angles in parallel lines and polygons

@whisto\_maths

### What do I need to be able to do?

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

- Identify alternate angles
- Identify corresponding angles
- Identify co-interior angles
- Find the sum of interior angles in polygons
- Find the sum of exterior angles in polygons
- Find interior angles in regular polygons

### Keywords

**Parallel:** Straight lines that never meet

**Angle:** The figure formed by two straight lines meeting (measured in degrees)

**Transversal:** A line that cuts across two or more other (normally parallel) lines

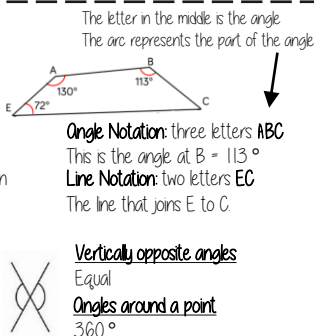
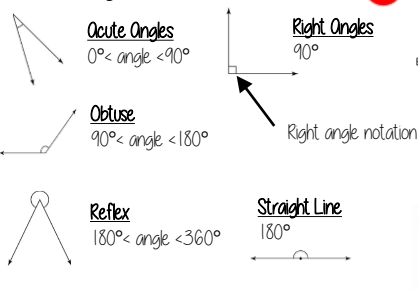
**Isosceles:** Two equal size lines and equal size angles (in a triangle or trapezium)

**Polygon:** A 2D shape made with straight lines

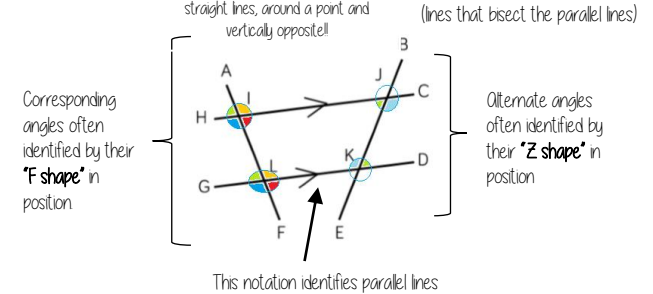
**Sum:** Addition (total of all the interior angles added together)

**Regular polygon:** All the sides have equal length; all the interior angles have equal size

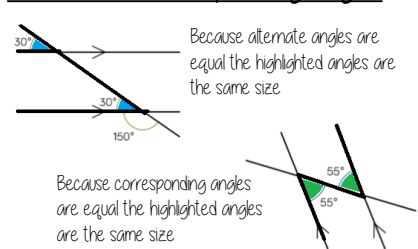
### Basic angle rules and notation



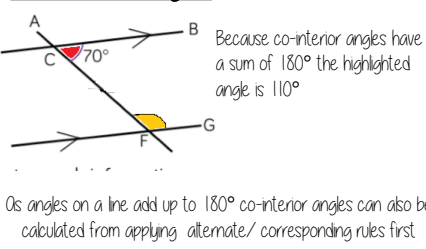
### Parallel lines



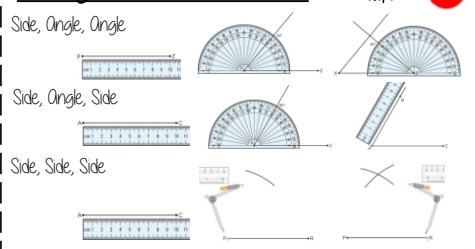
### Alternate/Corresponding angles



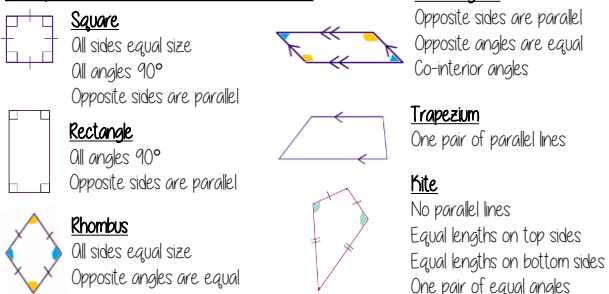
### Co-interior angles



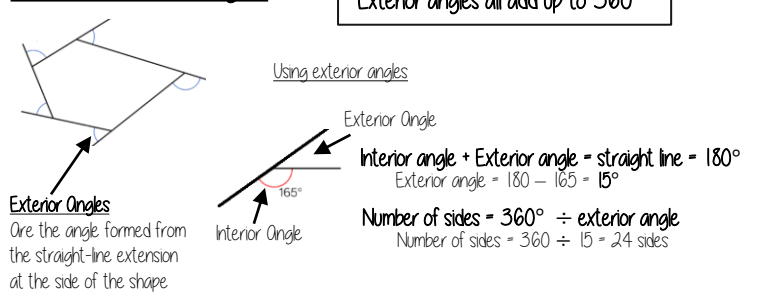
### Triangles & Quadrilaterals



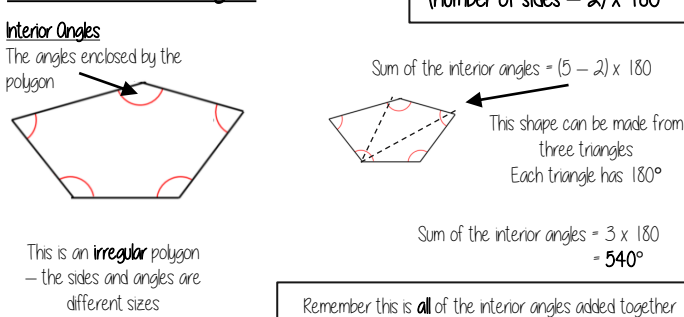
### Properties of Quadrilaterals



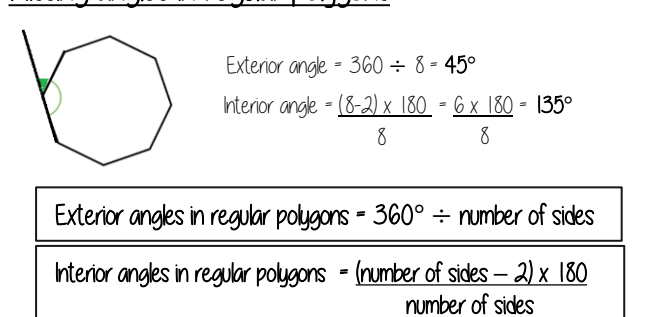
### Sum of exterior angles



### Sum of interior angles



### Missing angles in regular polygons



# YEAR 8 - REASONING WITH DATA...

## Measures of location

@whisto\_maths

### What do I need to be able to do?

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

- Understand and use mean, median and mode
- Choose the most appropriate average
- Identify outliers
- Compare distributions using averages and range

### Keywords

**Spread:** the distance/ how spread out/ variation of data

**Average:** a measure of central tendency – or the typical value of all the data together

**Total:** all the data added together

**Frequency:** the number of times the data values occur

**Represent:** something that shows the value of another

**Outlier:** a value that stands apart from the data set

**Consistent:** a set of data that is similar and doesn't change very much

### Mean, Median, Mode

#### The Mean

A measure of average to find the central tendency... a typical value that represents the data

24, 8, 4, 11, 8

Find the sum of the data (add the values) 55

Divide the overall total by how many pieces of data you have  $55 \div 5$

Mean = 11

#### The Median

The value in the center (in the middle) of the data

24, 8, 4, 11, 8

Put the data in order

4, 8, 8, 11, 24

Find the value in the middle

4, 8, 8, 11, 24

Median = 8

NOTE: If there is no single middle value find the mean of the two numbers left

#### The Mode (The modal value)

This is the number OR the item that occurs the most (it does not have to be numerical)

24, 8, 4, 11, 8

This can still be easier if the data is ordered first

4, 8, 8, 11, 24

Mode = 8

### Choosing the appropriate average

The average should be a representative of the data set – so it should be compared to the set as a whole - to check if it is an appropriate average

Here are the weekly wages of a small firm

£240	£240	£240	£240	£240
£260	£260	£300	£350	£700

Which average best represents the weekly wage?

The Mean = £307

The Median = £250

The Mode = £240

Put the data back into context

Mean/Median – too high (most of this company earn £240)

Mode is the best average that represents this wage

It is likely that the salaries above £240 are more senior staff members – their salary doesn't represent the average weekly wage of the majority of employers

### Identify outliers

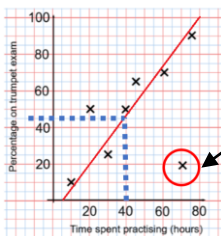
Outliers are values that stand well apart from the rest of the data

Outliers can have a big impact on range and mean. They have less impact on the median and the mode

Sometimes it is best to not use an outlier in calculations

Height in cm  
152 150 142 158 182 151 153 149 156 160 151 144

Where an outlier is identified try to give it some context. This is likely to be a taller member of the group. Could it be an older student or a teacher?



Outliers can also be identified graphically e.g. on scatter graphs

### Comparing distributions

Comparisons should include a statement of average and central tendency, as well as a statement about spread and consistency

Here are the number of runs scored last month by Lucy and James in cricket matches

Lucy: 45, 32, 37, 41, 48, 35

James: 60, 90, 41, 23, 14, 23

Lucy

Mean: 39.6 (1dp), Median: 38, Mode: no mode, Range: 16

James

Mean: 41.8 (1dp), Median: 32, Mode: 23, Range: 76

James has two extreme values that have a big impact on the range

"James is less consistent than Lucy because his scores have a greater range. Lucy performed better on average because her scores have a similar mean and a higher median"



## Geography - Year 7 Term 1 –Basic Geography and Map Skills

### Key Terms

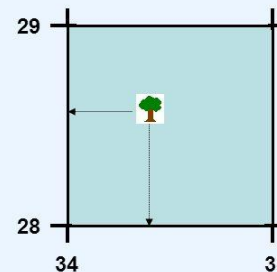
Human Geography	The study of how humans affect, or are affected by, the earth.
Physical Geography	The study of the natural features of the earth.
Ocean	A very large expanse of sea.
Continent	Any one of seven large land masses of the Earth.
Country	A nation with its own government, occupying a particular area.
Compass	An instrument showing the direction of north using a magnet.
Grid reference	A map reference indicating a location in terms of a series of vertical and horizontal grid lines identified by numbers or letters.
Contour lines	A series of lines on maps which connect areas of the same height.
Ordnance Survey (OS)	A national mapping agency in the United Kingdom which covers the island of Great Britain.
Plan	A detailed map of an area.
Scale	The link between a distance on a map and the distance on the ground.

### 7 continents map with 5 oceans



### Six-figure grid references

**Six-figure grid references** are used to locate objects or places within a grid square and so are much more accurate than **four-figure grid references**. In order to use six-figure grid references, you need to use the numbers on the grid lines plus an estimate of where an object is located within the grid square.



In this example, the tree symbol is located at **344286**.

Let's see how that works in a bit more detail....



# Year 7 English Term 1: Gothic Writing Knowledge Organiser

## Key Writing Techniques

1	<b>Ambitious Adjectives</b>	Use a range of adjectives in your writing to help make your description strong and effective.
2	<b>Foreshadowing</b>	A literary device where the writer hints at events to come in the story or plot.
3	<b>Metaphor</b>	A figure of speech when you say something is something else. <i>E.g. Ronald is a walking dictionary.</i>
4	<b>Long and short sentences</b>	Use a mixture of long and short sentences in your writing. Short sentences are good for fast and action sequences. Long sentences are good for detailed descriptions and building suspense.
5	<b>Pathetic fallacy</b>	A technique when the writer gives human emotions to inanimate objects usually in nature. Often used for foreshadowing.
6	<b>Personification</b>	Giving human qualities to objects or ideas. <i>E.g. The car danced along the ice.</i>
7	<b>Prepositions</b>	Words to connect different nouns and phrases in a sentence – e.g. <i>during, until, before</i>
8	<b>Simile</b>	A figure of speech when you say something is <u>like</u> something else. <i>E.g. Her smile was as bright as the sun.</i>

## Expand your vocabulary

Describing movement	Abruptly, Cautiously, Creepily, Eerily, Furtively, Ominously, Reverently, Suddenly, Surreptitiously, Suspiciously, Tentatively.
Describing sounds	Announce, Cackle, Creak, Cry, Gasp, Howl, Intone, Murmur, Shout, Shriek, Whisper
Describing a mystery	diabolical, enchantment, ghost, haunted, omens, ominous, portent, preternatural, prodigy, prophecy, secret, spectre, spirits, strangeness, talisman, vision
Describing fear, terror or sorrow	afflicted, affliction, agony, anguish, apprehensions, apprehensive, concern, despair, dismal, dismay, dread, dreaded, dreading, fearing, frantic, fright, frightened, grief, hopeless, horrid, horror, lamentable, melancholy, miserable, mournfully, panic, sadly, scared, shrieks, sorrow, sympathy, tears, terrible, terrified, terror, unhappy, wretched
Describing surprise	alarm, amazement, astonished, astonishment, shocking, staring, surprise, surprised, thunderstruck, wonder
Describing haste or speed	anxious, breathless, flight, frantic, hastened, hastily, impatience, impatient, impatiently, impetuosity, precipitately, running, sudden, suddenly
Describing anger	anger, angrily, enraged, furious, fury, incense, incensed, provoked, rage, raving, resentment, temper, wrath, wrathful, wrathfully
Describing largeness	enormous, gigantic, giant, large, tremendous, vast
Describing darkness	dark, darkness, dismal, shaded, black, night

## Key Words

1	Antagonist	A central character who opposes, or is hostile to, something.
2	Antihero	A central character who lacks typical heroic attributes, such as courage.
3	Claustrophobic	Fear of enclosed or small spaces.
4	Climax	The most intense point
5	Dank	Unpleasantly damp and cold
6	Denouement	Resolution or ending to a story
7	Doppelgänger	An apparition or double of someone.
8	Exposition	Background information: setting the scene and introducing characters
9	Ghoulish	Resembling or characteristic of a ghoul (ghost)
10	Macabre	Gruesome, horrifying
11	Menacingly	With menace or threat – <i>the monster stared <b>menacingly</b> at me.</i>
12	Morose	Sad, sullen, ill-tempered
13	Mystery	Something difficult to explain
14	Obscurity	Difficult to understand or see. Something hidden.
15	Ominous	Giving the impression something bad is about to happen
16	Pathetic Fallacy	The environment reflects the atmosphere
17	Petrifying	So frightening that you cannot move
18	Spectre	A ghost
19	Supernatural	Something that isn't scientific/can't be explained
20	Suspense	A feeling of anxious uncertainty
21	Tempest	Storm
22	Trepidation	Feeling anxious or worried about something – e.g. <i>I had a feeling of <b>trepidation</b></i>



look



say



cover



write



check

# Year 7 Term 3

## Knowledge Organiser

### Language key terms:

#### Figurative language:

The use of metaphors, similes and personification to establish mood, atmosphere or character.

#### Mood:

Influencing how the reader feels when reading the text.

#### Pathetic fallacy:

Using the weather and setting to help establish or suggest a mood.

#### Juxtaposition:

Creating a contrast between two characters, settings or images.

#### Evocative vocabulary:

Words which are chosen to have a specific emotional effect on the reader.

#### Personification:

The attribution of a human characteristic to something non human.

#### Onomatopoeia:

Using words which sound like the event they describe – ‘smash’ or ‘clash’.

#### Sensory language:

Appealing to the five senses within description.

#### Sibilance:

Using repeated ‘s’ sounds to either create a soothing or threatening tone

### Typical Genre Features

- Death and darkness
- Supernatural
- Curses or prophecies
- Madness and intense emotion/ paranoia
- Mystery, terror and suspense

### Typical Characters

- Mysterious characters with high social status
- Female or feminine characters that are threatened by powerful men
- Threatening women who are monsters
- Powerful, tyrannical male figures
- Villains, vampires, ghosts, werewolves and giants

### Typical Settings

- Wild landscapes
- Medieval style castles, churches or abbeys
- Gloomy, decayed and ruined environments
- Remote, uninhabited places
- Volatile and threatening weather.

### Gothic conventions

- The first Gothic novels appeared in the late 18<sup>th</sup> Century
- Gothic fiction was a branch of the larger Romantic movement that tried to create strong emotions in the reader
- Horace Walpole's *The Castle of Otranto* is usually regarded as the first 'Gothic' novel
- 'Gothic' can refer to the type of architecture that was prominent or popular in what is now Germany during the medieval period
- Writers use setting and speech to build suspense
- Common subject matter includes the supernatural, family curses, mystery, madness and death
- Pathetic fallacy is where the weather creates a mood

### Gothic movement

- Gargoyles were used as rain spouts to help remove water from roofs, but were used for decorated purposes, too
- Most Gothic buildings were made out of stone blocks and because of this they are often very dark in colour

### Gothic writers

- Mary Shelley wrote 'Frankenstein' when she was 18 years old
- Bram Stoker's 'Dracula' has had a huge influence on modern films
- Edgar Allan Poe was a writer of many gothic short stories.
- Charles Dickens was also a writer of 'Great Expectations'
- Susan Hill's 'The Woman In Black' adheres to the gothic conventions
- Emily Bronte creates fear in 'Wuthering Heights'

Your assessments:

**How has Stoker created a gothic atmosphere in the extract from 'Dracula'?**

**Write a gothic short story with the title 'Abandoned'**



### Values

- Gothic writers are preoccupied with the supernatural, because they believe that not everything has a scientific explanation.
- They believed that nature is 'sublime': it has the power to simultaneously inspire awe and terror in people.
- They challenged society's expectations about propriety and emotion. To show wild emotion was seen as impolite, but not to the Gothic writers, who often depicted passion and rage.
- They explored the role of the female characters: often in gothic texts, there are powerful female roles, which contrasted contemporary society.
- They were very interested in the psychological exploration of characters, particularly in relation to the theme of madness.

### Keywords

- Dilapidated - of a building or object, in a state of disrepair or ruin.
- Sinister - giving the impression that something harmful or evil is or will happen.
- Grotesque - repulsively ugly or distorted.
- Afflicted - of a problem or illness, cause pain or suffering.



CHAPTER 1:

CREATION AND COVENANT

Knowledge organiser


Key vocabulary	
God	The one supreme being, who creates and sustains everything.
revelation	The way in which God is made known to humans, which Catholics believe is most perfectly done through Jesus.
literal sense	The meaning of the text as the author intended it to be; this is different to reading a passage literally which means accepting it as word-for-word truth.
literary form	The style of writing used, for example a letter or a poem.
creation	The act of bringing something into existence; or the universe and everything in it (which Catholics believe God created).
creationism	The belief that the Bible accounts of creation are literally true.
scientism	The belief that science can provide all of the answers in life.
prayer	The way in which humans communicate with God.
stewardship	The duty to care for something. Catholics believe that God gave them the duty to care for the earth and everything in it.

OPTIONS	
Ethical	<b>Sustainable development</b> is trying to live in a way which prevents harm to the environment and prevents the earth's resources running out. Catholics support sustainable development because caring for the environment is part of their duty as stewards of creation.
Lived religion	<b>Sister Dorothy Stang</b> worked to protect the Amazon rainforest and help bring settler farmers together to give them greater power in challenging deforestation. She did this because she believed that God gave all humans the duty to be stewards of creation.
Artistic expression	Art is often used in religion to express complicated beliefs. For example, <b>Donald Jackson's Genesis Frontispiece</b> , from the St John's Bible, shows the first creation story. Each column in the artwork illustrates one day of creation.

**The Bible**

**The Bible** is the holy book for Christians. It contains God's Word.

- The Old Testament** is the part of the Bible written before Jesus' life, and contains the history and faith of the Jewish people..




- The New Testament** is the part of the Bible written after Jesus' life, and contains accounts of the life, death and resurrection of Jesus and the early history and faith of the Church.

- For Christians, the Bible is a form of **revelation** as they believe it is how God speaks to them.
- Catholics believe the Bible is **inspired**, meaning the Holy Spirit guided human writers to write down the truth from God.
- Most Catholics do not read the Bible literally. Instead they aim to understand the **literal sense** of the Bible (the message that God wanted to communicate to them).

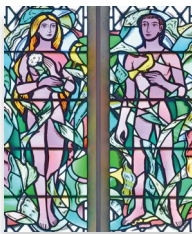
**Stories from Genesis**

Catholics believe that **God created all life** and everything that is created comes from God alone.

- In the **first creation story** God creates the universe and everything in it over six days; God creates using spoken word; God creates *ex nihilo* (out of nothing).
- This story teaches that **God is eternal** (exists beyond time and has no beginning or end); **transcendent** (outside of space and time); and **omnipotent** (all powerful).
- It teaches that **creation is good**.
- It teaches that **humans are created imago Dei**; they have a responsibility to be **stewards** of creation; they have been **created good**.
- Catholics interpret this as a symbolic story to help answer the questions '*Where did the world and everything in it come from?*' and '*Why are we here?*'



- In the **second creation story** God orders chaos and creates harmony; man is created by God from the earth and God breathes life into him; woman is created by God from man's rib.
- This story teaches that **God is immanent** (close to humans and acting in the world).
- It teaches that **creation is lovingly made for humans** to live together in a relationship with the world and with each other.
- It teaches that humans have a responsibility to be **stewards** of creation.
- Catholics interpret this as a symbolic story to help answer the question '*What is our purpose?*'



**Scientific theories about creation**

- The **Big Bang theory** says that the universe began around 15 billion years ago from a hot, dense point of energy.

- The **theory of evolution** suggests that all living things change over many generations to suit their environment, and that this happens because of natural selection.

Most Catholics are not creationists. Instead they believe there is no conflict between science and religion since **science tells us how** life exists and **religion tells us why** life exists.

**How do teachings about God's role in creation impact Catholics today?**

- The Catholic Church teaches that we should try to reduce human suffering and increase cooperation and friendship between all people (**Catholic Social Teaching**).
- The four core principles of Catholic Social Teaching are: the dignity of the human person, the common good, subsidiarity, and solidarity.
- Catholics believe they have a duty to care for the world and everything in it (**stewardship**).
- Pope Francis describes stewardship as responding to 'the cry of the earth and the cry of the poor' (*Laudato si'*).
- Prayer** is the way in which people communicate with God. It is a response to God's **revelation**.
- When Catholics pray, they lift their hearts and minds to God. It is a way of walking with God throughout their lives.

# 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 <i>magister</i> , 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 <b>The Book of Kells</b> , which is an ancient and beautiful handwritten book that contains the illuminated Gospels.
Lived religion	<b>Biblical idioms</b> 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	Tradition
<ul style="list-style-type: none"><li>● The Bible is also known as <b>sacred scripture</b>. Christians believe it is how God reveals information that will aid humanity’s salvation.</li><li>● Together, the Old Testament and New Testament explain the <b>history of salvation</b>.</li><li>● The <b>Old Testament</b> reveals prophecies about Jesus and key information about God’s plan for salvation. In the <b>New Testament</b>, the prophecies and promises in the Old Testament are fulfilled through Jesus.</li><li>● The Catechism teaches that the Old Testament has ‘intrinsic value’, meaning that it is essential and valuable in its own right.</li><li>● Catholics believe scripture is without error, which means that through it God speaks to humans and gives them key messages about salvation.</li></ul>	<ul style="list-style-type: none"><li>● <i>Dei Verbum</i> 9 teaches that sacred tradition is just as important to Catholics as sacred scripture. Both are seen as the <b>word of God</b>.</li><li>● Tradition comes from the words and actions of the <b>apostles</b>, who were given the <b>Holy Spirit</b> at Pentecost. This gave them authority.</li><li>● Tradition has developed teachings on the sanctity of life, the sacraments, the Creeds and the Mass.</li><li>● Tradition is alive, therefore as the Church grows and changes, so does tradition.</li></ul>

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.

