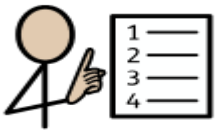
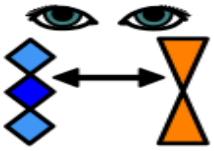
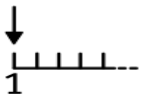
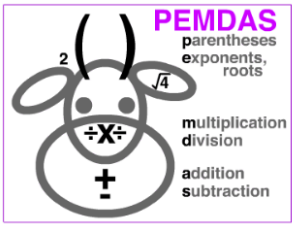
English – Yr9 Autumn 1

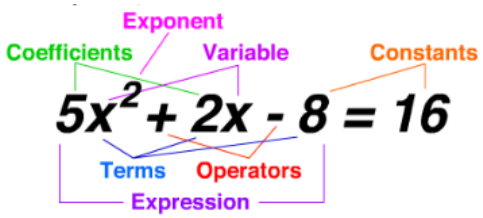
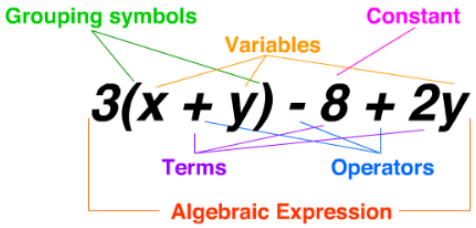
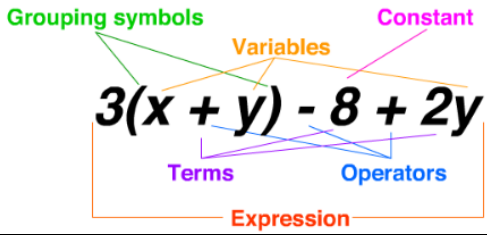
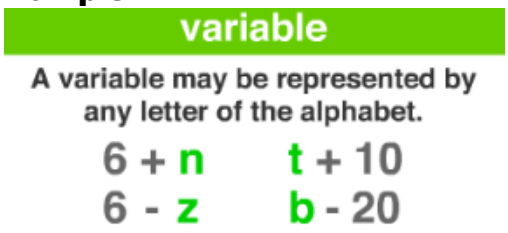
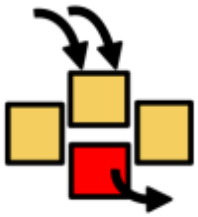
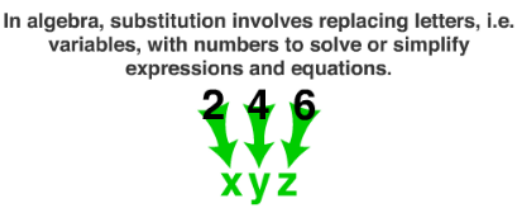
 Persuade	**To persuade somebody is to make somebody so something or think as you do on a topic.**	**Example:** **I will persuade my mum to let me go to the disco.**
 Advise	**To advise somebody is to given them ideas about what to do.**	**Example:** **I advise you to go home straight after school.**
 Argue	**To argue is give reasons for and against something.**	**Example:** **I can argue for and against having mobile phones in school.**
 Instruct	**To instruct is to tell somebody how something should be done.**	**Example:** **Our teacher will instruct us on how to make a bird box.**
 Convention	**Writing Conventions are rules that different types of writing follow.**	**Example:** **Poetry** **Newspaper article** **Diary Entry** **Story** **Play**
3 4 1 5 2 ↓ 1 2 3 4 5 Chronological	**Chronological means the order that things happen in.**	**Example:** **After school, I wash my hand then I eat. Afterwards I watch TV.**
 Fact	**A fact is a statement that we know to be true.**	**Example:** **London is the capital city of England.**

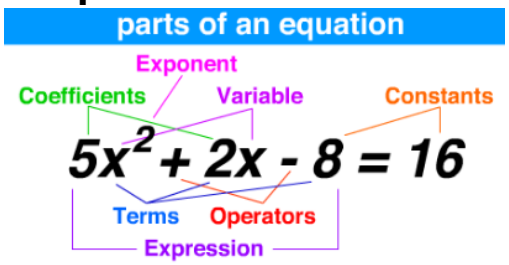
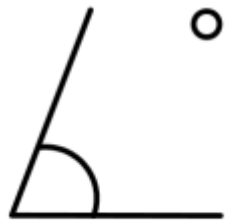
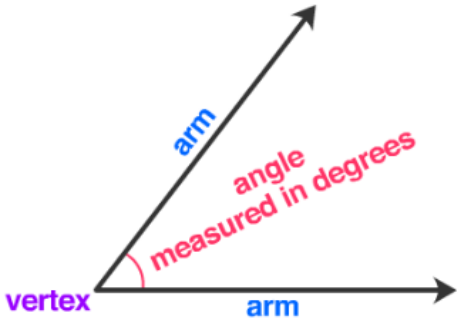
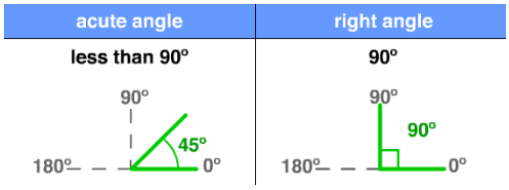
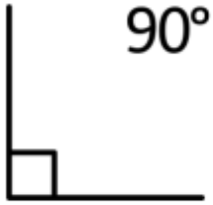
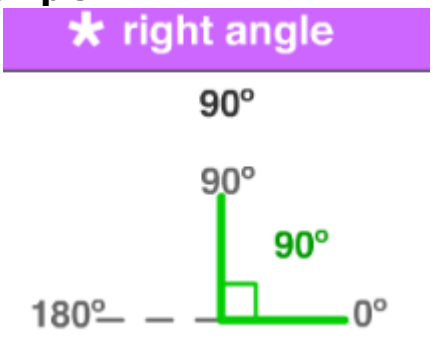
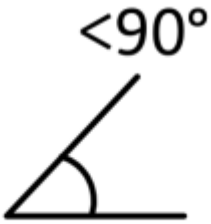
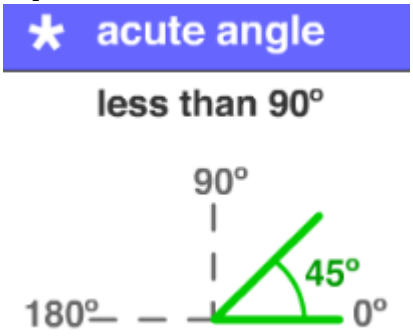
 Opinion	**An opinion is your belief about something and might not be true for everyone.**	**Example:** **In my opinion gold fish make the best pets.**
 Bias	**Bias means that a person prefers an idea and does not give equal chance to a different idea.**	**Example:** **Elthorne Park High School is the best school in England.**
 Repetition	**Repetition is when the same ideas or words are used again and again.**	**Example:** **"Fear leads to anger; anger leads to hatred; hatred leads to conflict; conflict leads to suffering." — Yoda, in Star Wars Episode I: The Phantom Menace.**
 Metaphor	**A metaphor is when you compare one thing to another. It suggests one thing is like another because they are similar.**	**Example:** **My brother is a couch potato.** **My teacher is a dragon.**
 Emotive  Langauge	**Emotive Language is when you use words to make the reader or listener feel emotional.**	**Example:** **After Christmas every year, there are thousands of abandoned puppies left to wander the streets, scared and alone.**
 Personal  Pronoun	**A personal pronoun is a word that replaces a noun and refers to a specific person(s) or thing(s).**	**Example:** **'I', 'you', 'she', or 'they'**
 Hyperbole	**Hyperbole is a super-exaggerated way of describing something so that you can emphasize a point.**	**Example:** • **I'm so hungry, I could eat a horse.** • **My feet are killing me.** • **This is the best book ever written.**

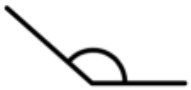
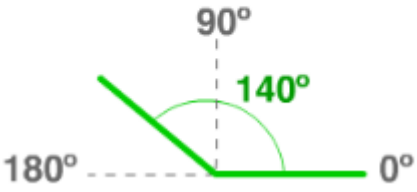
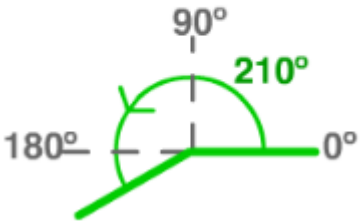
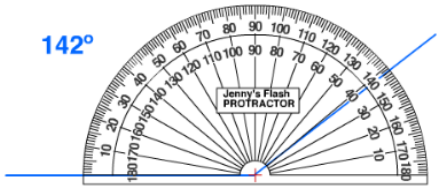
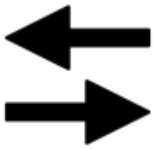
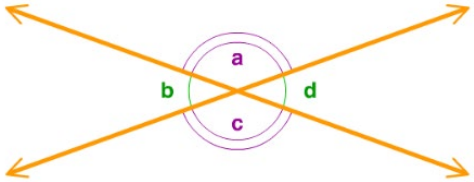
a e i o u Syllable	**A syllable is a single, unbroken vowel sound within a spoken word.**	**Example:** **Divide *elephant* into syllables: el-e-phant**
 Rethorical  Question	**A rhetorical question – is a question not expected to be answered.**	**Example:** **How could I be so stupid?**
  Imperative Sentence	**An Interrogative sentence is just a question**	**Example:** **Who was the last speaker?**
  Interrogative Sentence	**Imperative sentence – A sentence that commands or demands.**	**Example:** **Do your homework.**
  Exclamatory Sentence	**An exclamatory sentence is a sentence that exclaims and ends with an exclamation mark!!**	**Example:** **Look out!**
 Main  Clause	**A main clause is a group of words that has a subject and verb. A main clause is a sentence.**	**Example:** **I choose not to go to the party.**
 Subordinate  Clause	**A subordinate clause is a clause that cannot stand alone as a complete sentence because it does not express a complete thought.**	**Example:** **Although my friends begged me, I chose not to go to the party.**
  Complex Sentence	**A complex sentence is an independent clause (a sentence that can stand on its own) with 1 or more dependent clauses added (dependent clauses can't stand on their own as a sentence).**	**Example:** **Although my friends begged me, I chose not to go to the party.**

Maths

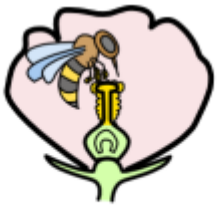
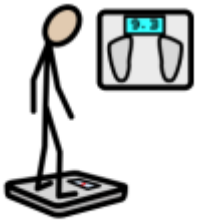
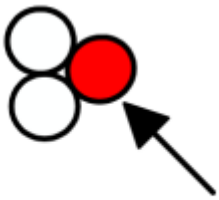
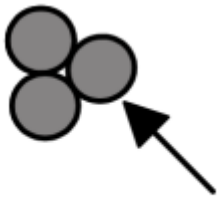
8.3498 → 8.3 9.3872 → 9.4 **Round**	**To change a number to a more convenient value.**	**Example** number 85674.87589 rounded to 10 ▶ 85670 100 ▶ 85700 1000 ▶ 86000
 **Estimate**	**To make an approximate calculation, often based on rounding.**	**Example** number 85674.87589 rounded to 10 ▶ 85670 100 ▶ 85700 1000 ▶ 86000
0.4 **Decimal Place**	**A number in a number system based on 10, also known as the Base-10 system.**	**Example** a decimal point separates whole numbers from fractions whole numbers / decimal fractions Thousands, Hundreds, Tens, Ones, Decimal Point, Tenths, Hundredths, Thousandths, Ten-thousandths 6 9 4 5 . 3 7 2 8
78.345 80 **Significant Figure**	**The digits that give most meaning to a number. The most significant digit in an integer is the number on the left. The most significant digit in a decimal fraction is the first non-zero number after the decimal point.**	**Example** 37,554 has 5 significant digits to 10: 37,550 has 4 significant digits to 100: 37,600 has 3 significant digits to 100: 38,000 has 2 significant digits to 10000: 40,000 has 1 significant digit
+ ÷ X − **Order of Operations**	**The order in which mathematical operations should be done.** **E.g. PEMDAS, BIDMAS or BODMAS**	**Example**  PEMDAS parentheses exponents, roots multiplication division addition subtraction $2 + 6\ (3+1)^2$ P = $2 + 6\ (4)^2$ E = $2 + 6\ (16)$ M = $2 + 96$ D A = 98 S

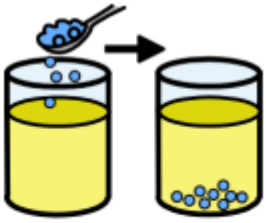
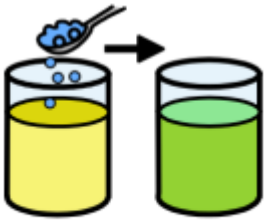
$a^2+b^2=c^2$ Algebra	**Elementary algebra is an area of mathematics where numbers and quantities called variables are represented by letters and symbols in expressions and equations.**	**Example** 
$4ab+c$ Algebraic Expression	**A mathematical phrase combining numbers and/or variables. An expression does not contain equality or inequality signs but may include other operators and grouping symbols. Both sides of an equation are expressions.**	**Example** 
$4ab+c$ X + − = ÷ Expression	**An expression is one or a group of terms and may include variables, constants, operators and grouping symbols.**	**Example** 
123 abc Variable	**A quantity that can change or vary, taking on different values. A letter or symbol representing a varying quantity, for example, n in 10 + n.**	**Example** 
 Substitute	**In algebra, the substitution of numbers for letters. The substitution of numbers for variables to simplify or solve expressions and equations.**	**Example** 

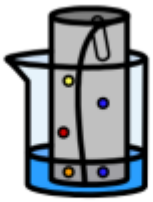
$3a = 10$ Equation	**A mathematical statement containing an equals sign, to show that two expressions are equal.**	**Example** 
 Angle	**The amount of turning between two rays called arms meeting at a common point called the vertex. An angle is measured in degrees.**	**Example** 
 83° Degrees	**Degree has many meanings in mathematics, including:** **• A unit for measuring the size of an angle, symbol °** **• A unit for measuring temperature, symbol °**	**Example** 
 Right Angle	**An angle measuring 90°.**	**Example** 
 Acute Angle	**An angle measuring less than 90 degrees.**	**Example** 

>90°  Obtuse Angle	**Any angle between 90° and 180°.**	**Example** ★ obtuse angle between 90° and 180° 
>180°  Reflex Angle	**Any angle between 180° and 360°.**	**Example** ★ reflex angle between 180° and 360° 
 Protractor	**An instrument used to measure angles in degrees. Protractors may be circular, a full rotation of 360°, but many are a semi-circle of 180°.**	**Example** 
 Vertically Opposite	**Pair of angles directly opposite each other, formed by the intersection of straight lines. May also be called vertically opposite angles or opposite angles.**	**Example** 

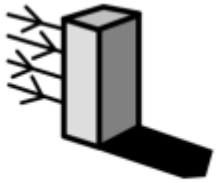
Science	
 Cell Wall	**A tough layer of material around some cells which is used for protection and support.**
 Chlorophyll	**The green substance found inside chloroplasts.**
 Chloroplasts	**A green disc containing chlorophyll, found in plant cells.**
 Cytoplasm	**The watery jelly inside a cell where the cell's activities take place.**
 Nucleus	**The control centre of the cell.**
 Vacuole	**A storage space in cells. Plants cells have a large permanent vacuole that helps keep them rigid.**

 Fertilisation	**Fusing a male gamete and a female gamete.**
 Velocity	**The speed of an object in a particular direction. E.g. a force.**
 Weight	**The force pulling an object downwards.**
 Gradient	**A way of describing the steepness of a line on a graph in numbers.**
 Atom	**The smallest natural part of an element.**
 Molecule	**Particle consisting of two or more atoms joined together.**

 Particle	**A tiny piece of matter that everything is made out of.**
 Filtration	**Using a filter to separate insoluble sustances from a liquid.**
 Saturated	**Contains the maximum amount of solute that can dissolve.**
 Insoluble	**Describes a substance that cannot be dissolved in a certain liquid.**
 Residue	**Material remaining in the filter after a mixture has passed.**
 Solution	**Formed when a substance has dissolved in a liquid.**

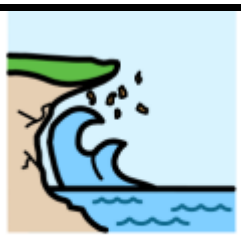
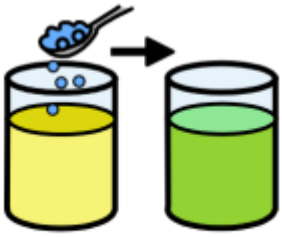
 Chromatography	**A technique for separating the components of a mixture.**
 Distillation	**The process of separating a liquid from a mixture by evaporating the liquid and then condensing it.**
 Mixture	**Two or more substance jumbled together but not joined together.**

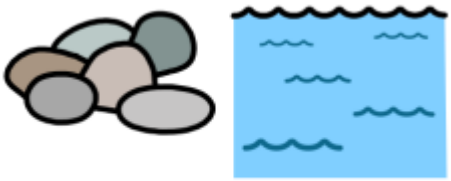
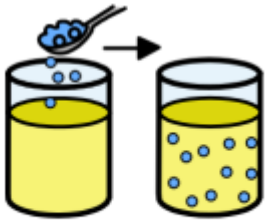
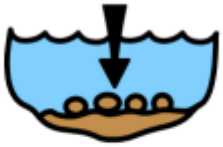
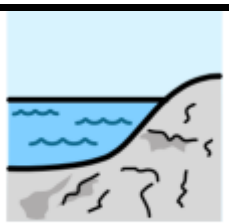
History	
 Assassination	**When a person is murdered for political reasons.**
 Bayonet	**A long blade or knife attached to the end of a musket. Soldiers would use it like a spear in close combat.**

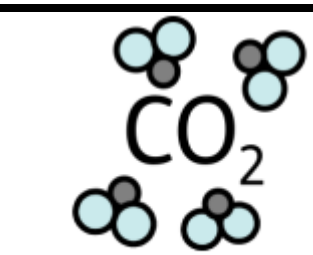
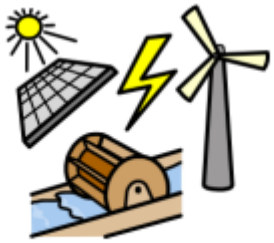
 Blockade	**An attempt to stop people and supplies from going in or out of a port.**
 Casualty	**A soldier that is wounded or killed during battle.**
 Confederacy	**Another name for the Confederate States of America or the South. The Confederacy was a group of states that left the United States to form their own country.**
 Emancipation Proclamation	**An executive order from President Abraham Lincoln stating that the enslaved in the Confederate states were to be set free.**
 Federal	**A term used to describe people who supported the Union.**
 Infantry	**Soldiers that fight and travel by foot.**

 Musket	**A long gun with a smooth bore that soldiers shot from the shoulder.**
N  North	**The northern states of the United States, also called the Union.**
 Plantation	**A large farm in the southern United States. Before the Civil War many of the workers on plantations were enslaved.**
 Rebel	**A nickname given to people in the South supporting the Confederate States.**
 Secede	**When the southern states chose to leave the United States and to no longer be a part of the country.**
 S South	**A nickname for the Confederate States of America or the Confederacy.**

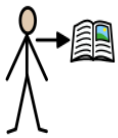
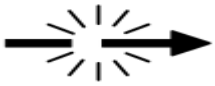
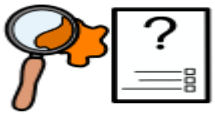
 Union	**The name given to the states that stayed loyal to the United States government. Also called the North.**
 Yankee	**A nickname for people from the North as well as Union soldiers.**

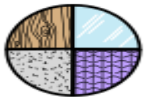
Geography	
 Erosion	**Wearing away and removal of material by a moving force, such as a breaking wave**
 Abrasion	**Rocks carried along by the river wear down the river bed and banks.**
 Hydraulic Action	**The force of the river against the banks can cause air to be trapped in cracks and crevices. The pressure weakens the banks and gradually wears it away.**
 Solution	**Particles dissolved by the chemicals in the water.**
 Discharge	**The quantity of water that passes a given point on a stream or river-bank within a given period of time.**
 Precipitation	**Moisture falling from the atmosphere – as rain, hail, sleet or snow.**

 Transportation	**The movement of eroded material**
 Traction	**The rolling of boulders and pebbles along the river bed.**
 Suspension	**Fine solid material held in the water while the water is moving.**
 Saltation	**Soluble particles are dissolved into the river.**
 Deposition	**Particles bouncing down the river bed.**
 Long Profile	**Occurs when material being transported by the river is dropped due to it losing energy**

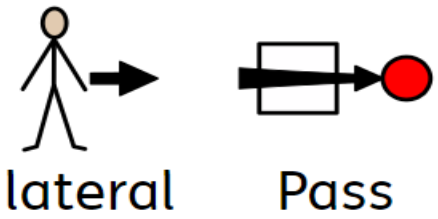
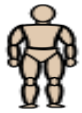
 Carbon Footprint	**Measurement of the greenhouse gases individuals produce, through burning fossil fuels**
 Climate Change	**A long-term change in the earths climate, especially a change due to an increase in the average atmospheric temperature**
 Conservation	**Managing the environment in order to preserve, protect or restore it**
 Energy Conservation	**Reducing energy consumption by using less energy and existing sources more efficiently**
 Renewable Energy	**A resource that cannot be exhausted, i.e. wind, solar or tidal energy.**
 Pollution	**Chemicals, noise, dirt or other substances which have harmful or poisonous effects on an environment**

 Sustainability	**Actions that meet the needs of the present without reducing the ability of future generations to meet their needs**
 Urban Greening	**Process of increasing and preserving open space in urban areas, i.e. public parks and gardens**

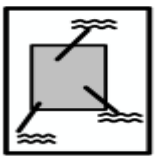
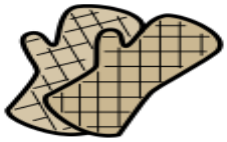
Year 9 Drama	
 Subtext	**The underlying and often unspoken thoughts and motives of characters – what they really think and believe.**
 Character  motivation	**The reason behind a character's behaviour and actions in a given scene.**
 Effect	**An event or a moment intended to create a particular emotional reaction.**
 Evaluate	**To judge the strengths and weaknesses of a performance.**
 Analyse	**The process of examining a piece of drama to find the meaning that is being communicated.**

Year 9 Music	
 Melody	**The most important part of the song (the tune).**
 Rhythm	**The pattern of sound in time.**
 Tempo	**Speed of the music**
 Pulse	**The heartbeat of the music.**
 Texture	**How many parts or instruments are playing at once.**
 Dynamics	**How loud or soft the music is.**
 Ostinato	**A short repeating pattern of music**
 Timbre	**Sound quality (a violin has a different timbre to a guitar)**
 Leitmotif	**A musical idea in film music that represents a particular place, character or theme.**

Year 9 Physical Education

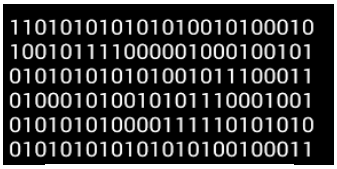
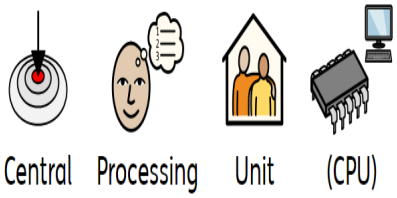
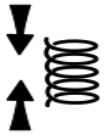
	**Passing directly sideways**
	**Copy exactly what the person is doing**
	**Move the ball in and out of the cones**
	**Hold your body in a specific shape without moving**
	**Change direction of movement at speed**
	**Stopping an item (football, basketball, Rugby Ball) moving from one person to another**
	**Pretend to go in one direction but don't and choose another direction.**

Safety Rules - Food Technology

 Wash Hands	**Wash your hands before and after touching food.**
 Read  Labels	**Read the labels on food products carefully. The label will tell you the safest way to store the product – whether it's in the fridge or in a cool cupboard.**
 +  Wash Fruit and Vegetables	**Wash all fruits and vegetables before eating and preparing**
 Don't Run	**Move carefully in the kitchen –never run.**
 Wipe  Spills	**Wipe up any spillages straight away.**
 Be Careful of  sharp knives	**Be careful when using sharp knives or utensils.**
 Oven Mitts	**Always use oven mitts to remove hot food and dishes from the stove and oven.**

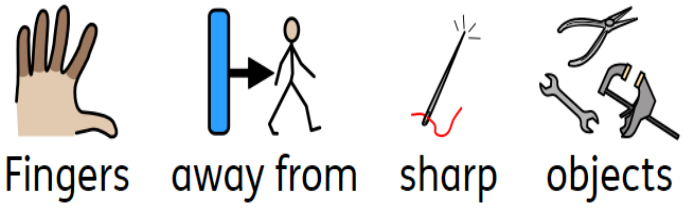
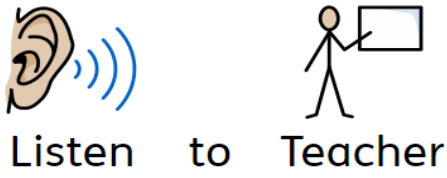
 Wash  Utensils	**Wash all of the utensilsyou have used in hot, soapy water.**
 Apron	**Make sure your clothes are clean and wear a clean apron.**

Year 9 Information Technology

10 Denary	**We count in denary is has a base 10 number system (10 single digit numbers).**
 Binary	**Binary code is a base 2 number system. It is one type of coding that uses 0 and 1 to show letters, numbers and symbols. It is called binary code because it's made of only two symbols. The "bi" in binary means two!** **Computers work in binary as they store things in a series of switches which can either be off (0) or on (1)**
16 Hexadecimal	**Base 16 number system (16 single digit numbers, 0 to 9 then A to F). Used by programmers as it is easier to understand than binary (numbers not as long) but easier for the computer to convert to binary than denary**
 Central Processing Unit (CPU)	**The 'brain' of the computer. Does all of the calculations**
Abcd Abcd Abcd Character Set	**How letters, numbers and symbols are shown in the computer**
 Compression	**Making files smaller**
 Lossy	**Type of compression. Makes files smaller than Lossless compression but may lose some quality in images, sound, etc. Not suitable for some types of file (e.g. Word/Google documents)**
 Lossless	**Does not compress files as much as Lossy compression, but does not lose any quality. Can be used with most types of file**

Safety Rules – Resistance Materials

 Safety Goggles	**Always wear safety goggles to protect your eyes when using machines.**
1 One  Person	**Only 1 person allowed on a machine at a time.**
 Don't Run	**Move carefully and never run.**
 Tie  hair	**Make sure your hair is tied back.**
 Tuck  Lanyard	**Make sure your lanyard is tucked in so that it doesn't get in the way.**
 Don't Push	**Do not push or touch other people.**
 Supervision	**Do not use machines or tools without an adult**
 Don't  blow  dust	**Do not blow dust**

	**Keep your fingers away from sharp objects and equipment.**
	**Always listen to the teacher**