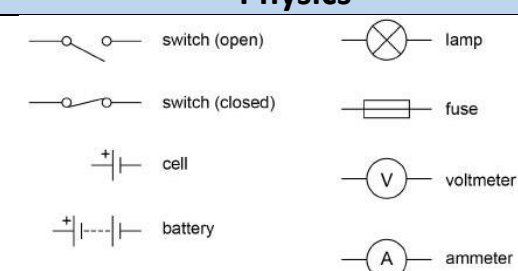


Biology		Chemistry	Physics
1	<p>Digestion is the process of breaking down food so nutrients can be absorbed into the blood. Human Digestive Systems: Mouth→Oesophagus→Stomach→Small Intestines→Large Intestines→Rectum. Liver makes the alkaline bile & pancreas makes enzymes that speed up digestion.</p>	<p>Acids are corrosive, this means that the acid can destroy skin cells and attack metals if spilled (pH 0 – 6) Acids are irritants, will make your skin become red and blistered if spilled on skin. Acids all contain Hydrogen (eg. HCl, H₂SO₄)</p>	
2	<p><u>Food tests practical</u> tests for nutrients in foods. Iodine solution tests for starch. Benedicts solution tests for reducing sugars Biuret's tests for protein. Ethanol tests for Fats (Lipids)</p>	<p><u>Reactions of metals with acids.</u> Gold & Silver – No reaction – Lit Splint = no pop Lead & Iron – moderate reaction – Lit splint = squeak Calcium & Potassium – violent reaction – Lit splint = pop</p>	<p>Series Circuit – A single loop, where the current has no choice of route. The current is the same everywhere. Parallel Circuit – Multiple loops, where the current has a choice of route. Current is NOT the same everywhere.</p>
3	<p>Enzymes are biological catalysts that speed up digestion. Amylase break down carbohydrates into glucose. Protease break down protein into amino acids. Lipase break down fats (lipids) into fatty acids.</p>	<p>Alkali's all contain Hydroxide (OH) and have a pH of 8 – 14. Found in cleaning products and toiletries Eg. NaOH and Ca(OH)₂</p>	<p>Current is the flow of electrons around a circuit. Measured in Amperes (A) Voltage (Potential Difference) is the driving force that pushes charge round a circuit. Measured in Volts (V)</p>
4	<p>Carbohydrates – Starch and Sugar, the body's primary source for energy. Sweets/pasta /potatoes Protein – Important for cell repair and growth. Chicken/fish /red meat Fats – Stored for reserve energy supply and insulation. Nuts/oils /avocado Minerals – Needed in tiny amounts. Iron for red</p>	<p><u>Indicators:</u> Change different colours depending on if it's an acid or alkali. Litmus Paper – acids turn paper red, alkalis turn paper blue, neutral turns the paper purple. Universal Indicator – gives the range of colour on the pH scale.</p>	<p>Resistance is anything in a circuit that slows down the flow of current. Measured in Ohms (Ω) V = IR Conductor: material that easily allows electricity to pass through it. Insulator: material that doesn't allow electricity to pass through it easily.</p>
5	<p>blood cells. Vitamins – Needed in tiny amounts. Vitamin C for skin repair. Fibre – Helps with digestion. Wholegrains Water – prevents dehydration.</p>	<p><u>Neutralisation:</u> When acids and Alkalis are added together they both come closer to a pH of 7, making them more neutral.</p>	<p>The <u>National Grid</u> uses a High potential difference and a low current to transfer electricity across the country from power stations to consumers using transformers and transmission wires.</p>

Quiz Time

Week 1 Quiz

1. Draw and label 3 electrical symbols
2. What system breaks down food?
3. Identify the key organs of the digestive system
4. Describe an acid
5. Draw the electrical symbol for a battery

Week 4 Quiz

1. What nutrient is the primary source of energy for the human body?
2. What role does protein play in the body?
3. What colour does acid turn litmus paper?
4. What is the equation that links Voltage, Current and Resistance?
5. Describe a conductor

Week 2 Quiz

1. Describe a series circuit
2. Describe a parallel circuit
3. Describe what happens when lead mixes with an acid
4. In the food test practical what does Biurets reagent test for?
5. What reagent would we use to test for Starch

Week 5 Quiz

1. What is the pH for neutral?
2. Identify an example of a source of protein
3. Identify an example of a source of fats
4. Identify an example of a source of carbohydrate
5. Describe how energy electrical energy gets into your home

Week 3 Quiz

1. Describe an alkali
2. What enzyme breaks down protein?
3. What enzyme breaks down Carbohydrate?
4. What enzyme breaks down fat (lipids)
5. What is current in electrical circuits?

Week 6 Quiz