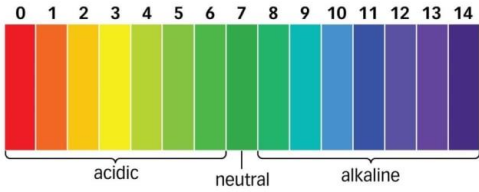
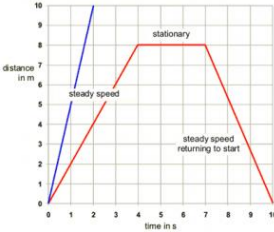


# Year 8 term 3 – Kemnal Keys

Biology		Chemistry	Physics
1	<p><b>Aerobic respiration:</b> uses glucose and oxygen to release energy.</p> <p><b>Glucose + oxygen → carbon dioxide + water (+energy)</b></p> <p>The energy released by respiration is needed for muscles to contract.</p> <p>Respiration takes place in the <b>mitochondria</b>.</p>	<p><b>Acids:</b></p> <p>Acids are <b>corrosive</b>, this means that the acid can destroy skin cells and damage metals if spilled (pH 0 – 6)</p> <p>Acids are <b>irritants</b>, will make your skin become red and blistered if spilled on skin.</p> <p>Acids all contain Hydrogen (eg. HCl, H<sub>2</sub>SO<sub>4</sub>)</p>	<p><b>Terminal Velocity</b> – the fastest speed that an object can fall at due to the interaction of forces. If an object changes its surface area, there will be a different amount of <b>air resistance</b> acting upon it.</p>
2	<p><b>Alveoli</b> - Small air sacs in lungs</p> <p>Adaptations of lungs make them suited for gas exchange:</p> <ul style="list-style-type: none"> <li>- Good blood supply</li> <li>- Large surface area</li> <li>- Short diffusion distance</li> </ul>	<p><b>Alkalis:</b></p> <p>Alkali's all contain Hydroxide (OH) (pH of 8 – 14)</p> <p>Found in cleaning products and toiletries e.g. NaOH and Ca(OH)<sub>2</sub></p>	<p><b>Speed</b> – a measure of how far you travel in a set amount of time. UNITS – metres per second</p>
3	<p><b>Lung Volume</b> – the amount of air you can breathe into your lungs in a single breath.</p>	<p><b>Metal + acid → salt + hydrogen</b></p> <p>Test for hydrogen using a lit splint.</p> <p>No reaction – no pop</p> <p>Moderate reaction – Squeak</p> <p>Violent Reaction - Pop</p>	<p>Calculating speed</p> <p><b>Speed = distance / time</b></p> <p><b>v = d / t</b></p>
4	<p><b>Anaerobic respiration:</b> occurs when you do not have enough oxygen for aerobic respiration.</p> <p><b>Glucose → lactic acid (+ energy)</b></p> <ul style="list-style-type: none"> <li>- Does not release much energy compared to aerobic respiration.</li> <li>- Brewing in baking or applications of anaerobic respiration -fermentation.</li> </ul>	<p>The PH scale</p> 	<p><b>Distance time graph</b></p> 
5	<p>Just like animals, plants respire anaerobically when oxygen is in short supply. However the products of anaerobic respiration are different. Plants produce <b>ethanol</b> and <b>carbon dioxide</b> and it is known as <b>fermentation</b>.</p> <p>Fermentation is used in <b>brewing</b> and the production of alcoholic drinks. Wine uses grapes, beer uses hops and barley. It is also important in baking – yeast and sugar make carbon dioxide which makes bread rise.</p>	<p><b>Neutralisation:</b></p> <p>When acids and Alkalis are added together they both come closer to a pH of 7, making them more neutral.</p> <p>Acid + alkali → salt + water</p> <p><b>Titration:</b> A process used to accurately mix acid and alkali together to get a pH of 7, this can be seen by using universal indicator (turns green if pH 7).</p>	<p><b>Relative motion</b> – the speed an object is moving from the perspective of another moving object.</p>

# Quiz Time

## Week 1 Quiz

1. Describe the term aerobic?
2. Describe the term respiration?
3. Describe the term Terminal velocity?
4. Describe an Acid?
5. Where does respiration take place?

## Week 4 Quiz

1. Describe the term anaerobic?
2. Write out the equation for anaerobic respiration?
3. Write out the equation for aerobic respiration?
4. A horizontal flat line on a distance/time graph shows what?
5. What number is neutral on the pH scale?

## Week 2 Quiz

1. Where would you find alveoli?
2. Why are they suited to gas exchange?
3. Describe an alkali?
4. Describe the term speed?
5. What unit is speed measured in?

## Week 5 Quiz

1. What products can be made using fermentation?
2. Describe the term neutralisation?
3. A car moving at 40m/s next to a car moving 30 m/s in the same direction has a relative speed of?
4. A car moving 10 m/s towards a car moving 10 m/s in the opposite direction has a relative speed of?
5. pH scale 8 – 14 shows .....?

## Week 3 Quiz

1. How do you calculate speed?
2. Describe the term Lung Volume
3. Testing for hydrogen splint test No pop =
4. Squeaking =
5. Pop =

## Week 6 Quiz