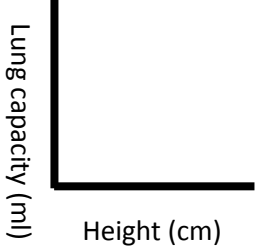
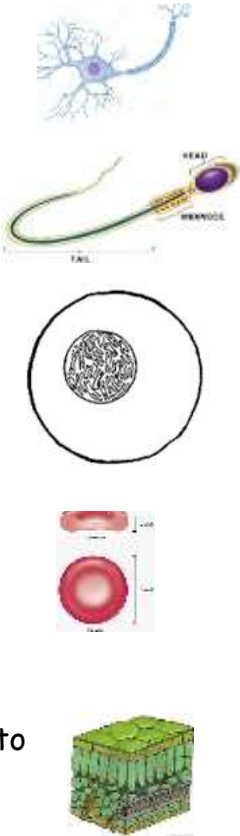




%	I can ...	Prove it!															
<p>80%+</p>	<p>Analyse differences in inhaled and exhaled air based on data</p> <p>Link lung capacity to exercise and asthma</p> <p>Independently explain why one side of the heart is thicker than the other</p> <p>Write a balanced symbol equation for respiration</p> <p>Explain how our body prevents us from getting the same disease twice</p>	<p>1. With reference to the table on the right, can you describe the difference in the composition of gases in inhaled and exhaled air?</p> <table border="1" data-bbox="1549 320 1976 477"> <caption>Comparison of Gases in Inhaled and Exhaled Air</caption> <thead> <tr> <th>Gas</th> <th>Inhaled Air</th> <th>Exhaled Air</th> </tr> </thead> <tbody> <tr> <td>Nitrogen</td> <td>78.00%</td> <td>78.00%</td> </tr> <tr> <td>Oxygen</td> <td>21.00%</td> <td>16.54%</td> </tr> <tr> <td>Carbon dioxide</td> <td>0.03%</td> <td>4.49%</td> </tr> <tr> <td>Other gases</td> <td>0.97%</td> <td>0.97%</td> </tr> </tbody> </table> <p>2. Why would a person without asthma generally be able to beat a person with asthma in a race? How would an asthma pump help?</p> <p>3. The right half of the heart is 2cm thick, the left is 3cm thick. Explain why there is a difference.</p> <p>4. Write a balanced symbol equation for aerobic respiration. $\text{_____} + \text{_____} \rightarrow \text{_____} + \text{_____}$</p> <p>5. When we get a flu jab, we are infected with a weakened form of the virus. How does this help to prevent us from getting the disease in the future?</p>	Gas	Inhaled Air	Exhaled Air	Nitrogen	78.00%	78.00%	Oxygen	21.00%	16.54%	Carbon dioxide	0.03%	4.49%	Other gases	0.97%	0.97%
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<p>70%</p>	<p>Explain how specialised cells are adapted for their role</p> <p>Describe the difference between breathing and respiration</p> <p>Plot a scatter graph to show the relationship between lung capacity and height</p> <p>Write a word equation for aerobic and anaerobic respiration</p> <p>Explain how the lungs are adapted for gas exchange</p> <p>Explain in detail how our body kills microorganisms entering the body</p>	<p>1. For each of the cells shown in the previous section, give 2 ways in which is adapted to perform its role.</p> <p>2. A year 7 student is confused as to the difference between breathing and respiration. Can you write an explanation to help them?</p> <p>3. On the axis to the right, plot what you think may be the relationship between height and lung capacity.</p> <p>Can you complete the word equations</p> <p>4. Aerobic respiration: $\text{_____} + \text{_____} \rightarrow \text{_____} + \text{_____}$</p> <p>5. Anaerobic respiration $\text{_____} + \text{_____} \rightarrow \text{_____} + \text{_____}$</p> <p>6. Describe 3 ways in which the human lungs are adapted to maximise the efficiency of gas exchange.</p> <p>7. Give a detailed explanation of how the body's immune system is able to kill microorganism. Use the key words <i>antigen</i>, <i>antibody</i>, <i>engulf</i>, <i>white blood cell</i>.</p> 															
<p>60%</p>	<p>Identify the key specialised cells</p> <p>Describe 2 differences between an animal and plant cell</p> <p>Link mucus and cilia to keeping the lungs clean</p> <p>Identify the key parts of the heart and lungs</p> <p>Describe where respiration occurs</p> <p>Explain why heart rate increases with exercise</p> <p>Describe 2 uses of microorganisms in detail</p> <p>Describe how our body kills microorganisms entering the body</p>	<p>1. Name the cells in the space to the right:</p> <p>2. Name the 3 organelles that are present in plant cells but are not present in animal cells.</p> <p>3. Write a sentence explaining how cilia and mucus work together to keep our lungs clean.</p> <p>4. Complete the sentence below: Respiration occurs in the _____ in cells.</p> <p>5. Why does Mr Truemans heart rate increase when he runs to work?</p> <p>6. State two ways in which humans use microorganisms for their benefit and describe in detail how each of these processes works</p> 															



%	I can ...	Prove it!						
	<p>Identify the main gas in inhaled and exhaled air</p> <p>Describe the purpose of respiration</p> <p>Describe changes in heart rate during exercise</p> <p>Give 3 uses and 1 danger of microorganisms</p> <p>Describe 3 ways that microorganisms can be spread</p> <p>Describe 3 ways that the body prevents microorganisms from making us ill</p>	<p>1. When an animal inhales the main gas going in is _____. On the exhale the main gas going out is _____.</p> <p>2. Why do we respire? Choose the best answer to this question below. A. We respire to make glucose (sugar) B. We respire because we can't photosynthesise. C. We respire to release the energy in glucose (sugar)</p> <p>3. Mr Trueman runs to work. Describe how his heart rate changes after leaving his house.</p> <p>4. There has been an outbreak of a deadly microorganism, we don't want it to spread. Put a tick next to good advice and a cross next to bad advice. A. Wash your hands regularly. B. Share cutlery in order to limit the amount of washing up. C. Hold a cloth over your mouth when sneezing or coughing. D. Clean under your fingernails. E. Travel as much as possible to get fresh air.</p> <p>5. Our tears contain an enzyme that destroys bacteria. Give two other ways in which our bodies are adapted to fend off harmful microorganisms.</p>						
	<p>Link organ systems to their function</p> <p>Explain how to decide if something is a living organism</p> <p>Identify the key organs in the human body</p> <p>Measure heart rate</p> <p>Name 3 diseases</p>	<p>1. Match the system to its function:</p> <table border="1" data-bbox="1522 1469 2005 1706"> <tr> <td>Digestive</td> <td>For gas exchange</td> </tr> <tr> <td>Circulatory</td> <td>Provides nutrients</td> </tr> <tr> <td>Respiratory</td> <td>Transport around the body</td> </tr> </table> <p>2. Name the 7 life processes. M N R E S R G</p> <p>3. Label as many vital organs as you can on the diagram.</p> <p>4. Heart rate is a measure of how many times your heart beats every _____. We use a _____ to measure the time and our fingers to count the number of _____. Minute, heart beats, stopwatch</p> <div data-bbox="1522 1721 1921 2240"> </div>	Digestive	For gas exchange	Circulatory	Provides nutrients	Respiratory	Transport around the body
Digestive	For gas exchange							
Circulatory	Provides nutrients							
Respiratory	Transport around the body							



Key Terms:

Heart, lungs, organ, tissue, cell, adaptation, nucleus, vacuole, cell membrane, cytoplasm, respiration, anaerobic, cilia, bronchus, mucus, alveoli, atrium, ventricle, valve, artery, vein, microorganism, virus, bacteria, fungi, immune system, white blood cell, antibody, antigen, engulf, enzyme, vaccine, immunity,

