**Year 8 Photosynthesis and Respiration (B1)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. I can state why the body needs energy | \* | ☺ | 😐 | ☹ |
| 1. I can state the word equation for aerobic respiration and describe how this relates to energy in the body | \* | ☺ | 😐 | ☹ |
| 1. I can describe where the reactants for aerobic respiration come from and where they go | \*\* | ☺ | 😐 | ☹ |
| 1. I can write a balanced symbol equation for respiration and explain where in cells the reaction occurs | Ext | ☺ | 😐 | ☹ |
| 1. I can state the word equation for anaerobic respiration | \* | ☺ | 😐 | ☹ |
| 1. I can describe where the reactants for anaerobic respiration come from and where the products go | \*\* | ☺ | 😐 | ☹ |
| 1. I can compare aerobic and anaerobic respiration and can give real-life examples of how we experience it | \*\* | ☺ | 😐 | ☹ |
| 1. I can describe what happens with respiration when we exercise | \* | ☺ | 😐 | ☹ |
| 1. I can explain how our body responds when we exercise in order to increase respiration | Ext | ☺ | 😐 | ☹ |
| 1. I can explain the difference between breathing and respiration | \*\* | ☺ | 😐 | ☹ |
| 1. I can label a diagram of the structure of the breathing system | \* | ☺ | 😐 | ☹ |
| 1. I can explain what lung capacity is and can describe how air is inhaled and exhaled in the lungs | \*\* | ☺ | 😐 | ☹ |
| 1. I can describe the function of each part of the breathing system | Ext | ☺ | 😐 | ☹ |
| 1. I can describe how gases from our lungs enter into our blood stream and vice versa by diffusion | Ext | ☺ | 😐 | ☹ |
| 1. I can explain how our gas exchange system is adapted for the job it needs to do | Ext | ☺ | 😐 | ☹ |
| 1. I can compare gas exchange in humans to gas exchange in plants | Ext | ☺ | 😐 | ☹ |
| 1. I can describe how the breathing system is kept clear from obstructions and harmful microorganisms | \* | ☺ | 😐 | ☹ |
| 1. I can draw and label a ciliated cell | \*\* | ☺ | 😐 | ☹ |
| 1. I can explain the role of ciliated cells in keeping the breathing system clear | Ext | ☺ | 😐 | ☹ |
| 1. I can list the main ingredients of a cigarette and can describe the effects they have on our bodies | \* | ☺ | 😐 | ☹ |
| 1. I can explain what Asthma and Asbestosis are and why they cause serious health issues for sufferers | \*\* | ☺ | 😐 | ☹ |
| 1. I can label a diagram of the heart and explain the function of each part | \*\* | ☺ | 😐 | ☹ |
| 1. I can label a diagram of the circulatory system | \*\* | ☺ | 😐 | ☹ |
| 1. I can describe how to measure pulse rate and how this relates to the action of the heart | \* | ☺ | 😐 | ☹ |
| 1. I can describe and explain the differences between veins, arteries and capillaries | \*\* | ☺ | 😐 | ☹ |
| 1. I can list the components of blood and can describe what each component does | \*\* | ☺ | 😐 | ☹ |
| 1. I can describe what heart disease is | \* | ☺ | 😐 | ☹ |
| 1. I can explain what causes heart disease | \*\* | ☺ | 😐 | ☹ |
| 1. I can give my opinion on the pros and cons of organ transplants | Ext | ☺ | 😐 | ☹ |
| 1. I can state the word equation for photosynthesis and describe the source of the reactants | \* | ☺ | 😐 | ☹ |
| 1. I can state the factors that affect the rate of photosynthesis and respiration in plants, including leaf adaptations | \* | ☺ | 😐 | ☹ |
| 1. I can explain the factors that affect the rate of photosynthesis and respiration in plants | Ext | ☺ | 😐 | ☹ |
| 1. I can compare the process of respiration and photosynthesis in plants and explain the difference | Ext | ☺ | 😐 | ☹ |

I understand (and can spell) the keywords listed below and can use them in 1-33 above.

|  |
| --- |
| **Keywords** |
| energy, chemical energy, oxygen, lungs, nose, mouth, windpipe, lungs, gas exchange, carbon dioxide, ribs, lung capacity, smoking, lung cancer, heart, blood, pump, circulatory system, blood vessels, arteries, veins, oxygen, pulse rate, red blood cells, platelets, clotting, smoking, heart disease |
| respiration, glucose, carbon dioxide, water, **oxygen + glucose → carbon dioxide + water + *energy,*** circulatory system, cramp, trachea, cartilage,  left and right bronchi, bronchioles, alveoli, diaphragm, inhale, exhale, diffuses, large surface area, thin walls, moist, capillaries, mucus, microbes, dust, ciliated cells, asthma, tar, inflammation, breathlessness, bronchioles, bronchitis, emphysema, nicotine, addictive, muscle cells, muscle tissue, chambers, valves, aorta, glucose, carbon dioxide,  oxygenated and de-oxygenated blood, white blood cells, infection, plasma, nucleus, concave,  surface area, fatty deposits, fatty foods, cholesterol, coronary artery, exercise, blood clot, heart attack |
| aerobic respiration, anaerobic respiration, mitochondria, cytoplasm, lactic acid, muscle fatigue, ventilation,  concentration gradient, high concentration, lower concentration, left atrium, right atrium, ventricle, haemoglobin |