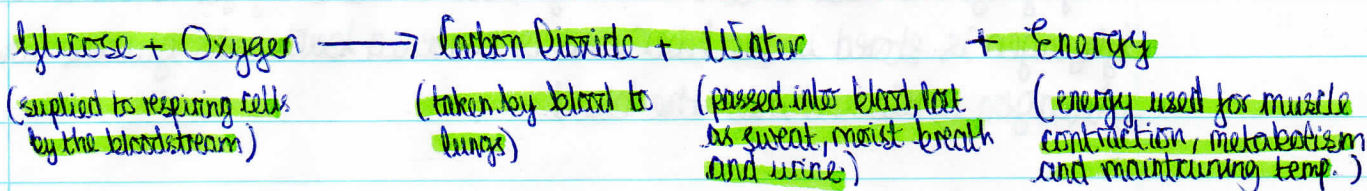


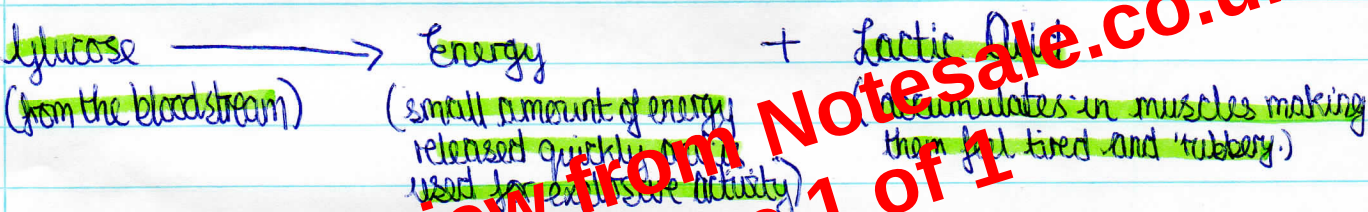
Aerobic Respiration



Anaerobic Respiration

When muscles are subject to long periods of vigorous activity, they become fatigued - stop contracting efficiently, and hurt. If there isn't enough oxygen reaching your muscles, they use anaerobic respiration to obtain energy.

- Produces energy quicker than aerobic respiration
- Isn't very efficient - glucose can't break down completely.



Oxygen Debt - your body needs to break down the lactic acid; the oxygen needed is called an oxygen debt.

- when the muscles are fatigued, deep breathing is required to oxidise the lactic acid to carbon dioxide and water.

Exercise and the Body

During Exercise :-

- heart rate increase

- arteries supplying your muscles dilate
- The rate and depth of breathing increases to remove the extra CO_2 produced.
- The supply of oxygen and sugar is increased (due to greater blood flow to exercising muscles) which speeds up removal of CO_2 .
- Glycogen stored in your muscles is broken down to glucose to be used in respiration.
- muscles start contracting harder and faster - need more glucose and oxygen to supply their energy needs.