

# Some breathing instead respiration is a chemical

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Some of the laws in energy, energy means ability to do work, or do something. It takes a variety of different form, light, heat, sound, electricity, chemical, automatic energy. The Energy laws are used for taxation of energy both energies are renewable and nonrenewable both. These laws are the primary authorities related to energy.

In contrast, energy policy refers to the policy and politics of the energy. Energy is measured in joules and cannot be created or destroyed. The most common forms of energy is chemical energy as this joins molecules or atoms with another.

Energy is needed to join bonds when bonds are broken energy is released. We have ATP which is Adenosine triphosphate and is found in our body. Also thermal energy which is heat energy this helps us to maintain a constant body temperature this also helps us to move. Also Electrical energy this helps send nerve impulses and fires signals to and from our brain. The energy metabolism is a catabolic reaction which is when it breaks down molecules and releases energy. Forms of energy We have ATP which is Adenosine triphosphate and is found in our body.

Also thermal energy which is heat energy this helps us to maintain a constant body temperature this also helps us to move. Also Electrical energy this helps send nerve impulses and fires signals to and from our brain. The energy that comes from respiration  $\text{Glucose} + \text{oxygen} - \text{carbon dioxide} + \text{water} + \text{energy}$  And the energy is (ATP) respiration isn't the same thing as breathing instead respiration is a chemical process in which energy is released from food substances such as sugar (glucose) Aerobic respiration

needs oxygen to function. Most chemical reactions happen and involve in the process inside the cell cytoplasm called the mitochondria. Metabolism= Catabolism Anabolism These organisms need energy as it controls body temperature, breathe and growth is repaired, food, it circulates blood. Transmits nerve impulse, movement, building complex molecules enzymes, hormones these are all connected to energy.

As it builds complex molecules from simple substances and using energy e. g. enzymes and hormones. Cardiovascular System This system is about the heartbeat. The heart is made of muscles. The cardiovascular system is made up of the heart and blood vessels.

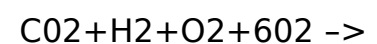
The vessels consist of arteries veins and the oxygen from respiration system. The Atria Systole, The contraction of atria pumps blood into the ventricles, The Ventricular Systole, pump the blood into the aorta and the pulmonary arteries. The Diastole atria fill with blood, which begins to flow into the ventricles as soon as their walls relax.

The Cardiac system of the event makes up one heartbeat. The stages of the cycle are? Relation of the heart ( Diastole )? Contraction of the atria ( Atrial Systole )? Contraction of the ventricles ( Ventricular Systole )The first stage Diastole the cardiac muscles relax, semilunar valve close as higher pressure in the arteries than inside the heart volumes of the atria and ventricles increase blood at higher pressure outside heart so the atria enters through veins. The second stage Atrial Systole muscle contracts volume of atria and decreases pressure in atria which then increases, the atria contracts Bicuspid + Tricuspid valves which goes into ventricles that is pushed apart. The blood

is then forced down into the ventricles. The third stage Ventricular Systole muscle contracts from the bottom up, the volume of the ventricles decrease, the pressure in the ventricles increase blood forced down upwards. The Av valve is pushed shut and the semilunar valve is pushed up and is opened so the blood enters the arteries. The three systems that are involved in supplying energy into body are the Cardiovascular system that transfers the blood around the body the role of it is to supply energy into the body. Once the simpler food is substances have been absorbed into capillaries of the digestive system, the simpler materials are taken to the liver and the body cells example the blood system.

This is driven by pumping action of the heart. The Respiratory system that maintains the oxygen to cells to get rid of Carbon dioxide. Supplying energy into the body. The lungs constantly refresh oxygen and dispose any waste product such as carbon dioxide and water. This then is dissolved as oxygen that passes through the thin alveolar walls into the bloodstream and transported into cells. The Digestive system is there to break down the food molecules to useful substances in the body. The Respiratory System The Body cells have constant delivery of raw materials from these systems.

The raw materials are oxygen and glucose the nutrients are continuously delivered by the body system to the bodily cells. This allows the breakdown (catabolic) process of glucose oxidation which releases energy to do work. The takes place in the Cytoplasm and Mitochondria this process is called respiration. The equation of respiration.



The role of air passage in the nose, the nasal cavity, air passes through the throat and the voice box as it makes its way down to the  
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trachea. The tracheas function is to funnel the inhaled air to the lungs and the exhaled air back out of the body. The function of the respiratory system is to exchange two gases, oxygen and carbon dioxide.

The exchange takes place in the millions of alveoli in the lungs and the capillaries that envelop them. The system uses energy as The Respiratory System - ventilation this requires energy as you'll need ventilation to take place in the intercostal muscle in order for the muscles to contract; they will need the energy in the form of ATP, which is energy. The lungs on the left side contain low oxygen, CO<sub>2</sub> rich blood and the right consist of oxygen rich, low CO<sub>2</sub> blood in the pulmonary veins. A good example of this is loading at the blood flow through the heart as it deoxygenated the blood flows through the right side of the heart to the lungs where it picks up the oxygen flows through the left side and back to the body cells. The respiratory system is the air that is breathed in through the mouth.

The air then goes through the respiratory system to the alveoli and in the lungs. There are tiny blood vessels next to the alveoli called capillaries. During gas exchange the oxygen diffuses across the wall of the alveoli into capillaries. It can be transported by the blood to the respiring cells. Oxygen enters, Carbon Dioxide leaves the alveoli. The blood capillary and the waste product as the same time either leave or enter.

The respiration of carbon dioxide can be diffused. Anaerobic respiration does not often occur as it comes out respiration with very low levels of oxygen. However, this creates lactic acid that is not good for your body and needs to be broken down later on.

The role of the ciliated epithelial tissue. The epithelium is a type of lining in the respiratory tract, it serves to moisten and protect the airways. It also has other functions such as a barrier to potential pathogens and foreign particles, preventing infection tissues. Link between the two systems and energy metabolism Both systems link to energy metabolism, for respiration system the heart pumps the blood containing the nutrients all around the body so that the cells can produce energy for respiration.

Energy is also needed to circulate the blood around the body in the form of ATP. We breathe in air, which goes through the respiratory system to the alveoli and then into the lungs. Cardiovascular system consists of the heart, blood vessels and blood system provides your cells with the oxygen and nutrients they need to generate energy. The cardiovascular system does a lot as we wouldn't be able to get the nutrient molecules from the foods we eat or the oxygen from the air to your cells without your blood, blood vessels and heart. When we inhale oxygen we bring in air which contains oxygen. The oxygen diffuses across the thin cell membranes of the lung tissue into the bloodstream, where proteins called haemoglobin are. Red blood cells pick it back up and deliver it to the tissues.

Cardiovascular system heart beating The heart is made up of muscles when the muscles contract in a specific way. The Cardiac cycle blood is forced out of the heart, the heart then carries on pumping by itself as the muscle of the heart is " myogenic" which is the energy source that contracts and relaxes without any stimulus from the brain. The energy source that contracts of the heart muscles is called ATP from respiration. Digestive: Peristalsis/

Segmentation + Active Transport of glucose The muscles contract in the

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system as an order to push food through. The segmentation is in the small intestine and muscle movement. It moves forwards and backwards both in orders to diffuse it's across quickly to absorb glucose across also to bring nutrients into the intestine wall. Muscles contract to produce energy.

During digestion the glucose has to be transported from the small intestine to the capillaries some of this action happens via, diffusion going from high to low concentrations. However when most of the glucose has move over via diffusion and the other needs to be moved by active transport. Diffusion is moving from of area of high concentration to low concentration. The darker side is the small intestine. Active transport moving from an area of low concentration, high concentration. This is when the glucose. Is make blood stream still needs to make last but other.

The lighter side is blood. RespirationThe Inspiration the diaphragm and intercostal muscles contract, this then increases the volume of the lungs the pressure of the lungs decrease -> the space gets bigger so the air is drawn into the lungs. The expiration of the diaphragm and intercostal muscle relax. This decreases the volume of the lungs.

The pressure of the lungs is increased. The smaller to the pressure the less space which means air is pushed out of the lungs. Conclusion In conclusion I have explained the functions of the body system in association with the energy metabolism.