

What is life

[Science](#), [Biology](#)



The Chemicals of Life The Role of Science in Development of Hypothesis

Science gives the reality in given circumstances in trying to solve mathematical, scientific and designing experiments. In the development of objectives on a given research, science gives the outlines of the facts that could form the basis of the research and thus the development of the hypotheses. In designing the experiments, scientific method gives of the basis of deriving the facts that the experiment is linked to. It gives the situation in real context and thus serves as the building block of the experiment. The arguments are based on the scientific methods of understanding the reality through the investigations of phenomena. Link: http://www.sciencebuddies.org/science-fair-projects/project_scientific_method.shtml

The Fundamental Concepts of Chemistry in Biology

Chemistry involves the study of the chemical compounds that make part of our environs. This is directly linked to biology in that biology engrosses the study of chemicals in living organisms and thus draws the fundamental concepts from chemistry. The study of any living thing within the predispositions of biology involves the study of chemistry. Chemistry also helps in the explanation of the chemicals of life such as the cellular compositions. Chemistry also explains how given parts of the body function and more the digestion of the different foods in the body. Link: https://www.youtube.com/watch?v=XmBmghaw7_E

Energy Metabolism in Cells

The movement of the micro molecules in the cells involves the force of energy and biochemical reactions of the cells which require energy to occur.

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These reactions are sped up or slowed down depending on the energy that the cells have acquired from the adjacent environments. The building up and breaking down of the cellular components make part of the cell metabolism process as energy is transferred and used in these processes. The enzymes speed the biochemical reactions of the cells to speed up the metabolism processes to support the cell functions. The chemical reactions convert the substrates into products and this is done by attaching chemical groups or breaking off to divide the chemical groups from the substrates, for instance the process of glycolysis. Link: <https://www.youtube.com/watch?v=rjza24Oyalc>

Comparison of Structures and Functions of Different Cell Types

All organisms are composed of cells which are the basic units of life. The cell structures are the smallest units of life and therefore the units that are smaller than the cell are not alive. Different cell structures perform different functions and in different organisms. Generally the cells are composed of plasma membrane, which separates the cells from the external environment, the cell is also composed of the cytoplasm which is a fluid filled in the cell and therefore puts them in shape and there is the nuclear material in the cells which is the genetic material of the cell and contains the chemicals of life within it. These are varied in different organisms like the plant and animal cells are very different. Link: <https://www.youtube.com/watch?v=MD5kvqO96Os>

Discussion of Life

Life is characterized by the ability of the organisms that have signaling and self sustaining processes and this creates the distinction from those objects

that do not. In the living things life is defined by the chemicals of life contained in the cells and these are made of chemicals that contain the biochemical natures of living organisms and the DNA. These organisms undergo metabolism so that the cells can keep on performing their functions and thus the maintenance of life. Different living organisms have got different life forms and this is characterized by the different cells in them (Rogers, 2011).

References

Rogers, K. (2011). *The Chemical Reactions of Life : From Metabolism to Photosynthesis*. New York: Britannica Educational Pub. in association with Rosen Educational Services.