

# [Biology 9th grade](https://assignbuster.com/biology-9th-grade/)

Biologythe study of lifesteps to the scientific method (6)1. identify the problem
2. make a hypothesis
3. create experiment
4. perform experiment
5. analyze data
6. publish lab ONBIOLOGY 9TH GRADE SPECIFICALLY FOR YOUFOR ONLY$13. 90/PAGEOrder Nowindependant variablewhat you change in the experiment that will test the subjectdependant variablethe change that is caused by the independant variable. controlserves as a standard, or comparison. scientific theorysystem of ideas supported by evidence, and explains many observationsscientific lawstruths that are found across the universe. opinionbias point of viewWhat do microscopes do? enlarge images of small objectsthermometers.. measure tempuraturesbalances.. measure massmeasures lengthmeter (m)measures massgram (g)measures tempuraturefarenhite/ celciusmeasures volumeliter (l)properties of lifemetabolism, homostasias, reproduction, hereditary, evolutionmetabolismsum of all chemical reactionshomostasiasmaintain stable internal conditionsreproductionthe sexual activity of conceiving and bearing offspringhereditarygenetically transmitted or transmittable from parent to offspringevolutionchange over timetotal magnificationocular lens x objective lensautotrophsorganisms that make their own foodheterotrophsorganisms that cannot make their own foodconsumersan organism that obtains energy and nutrients by feeding on other organisms or their remains. primary consumerAn organism that eats producerssecondary consumerAn organism that eats primary consumersdecomposersorganisms that break down wastes and dead organisms and return raw materials to the environmentproduceran organism that makes its own foodpredatorsanimals that prey on otherspreyanimal hunted or caught for foodfood chaina series of steps in which organisms transfer energy by eating and being eatenfood web(ecology) a community of organisms where there are several interrelated food chainstropic leveleach step in a food chain or food webpopulationa group of organisms of the same species populating a given areacommunitya group of interdependent organisms inhabiting the same region and interacting with each otherechosystemsall the living and nonliving things in an environment including their interactions with each otherhabitatPlace where an Organism livesnichephysical use of habitat and function with ecological communitybioticliving thingsabioticnon living thingslimiting factorsConditions in the environment that put limits on where an organism can liveecological successiongradual change in living communities that follows a disturbancebiodiversitythe variety of species living within an ecosystematombasic unit of matterprotonpositively charged particleneutronan elementary particle with 0 charge and mass about equal to a protonelectronan elementary particle with negative chargeatomic numbernumber of protonsatomic massprotons + neutronsionic bondFormed when one or more electrons are transferred from one atom to anothercovalent bondA shared pair of electrons., a chemical bond that involves sharing a pair of electrons between atoms in a moleculeorganic compoundcontains carbonmixutre2 or more substances mixed together in various portionshomogeneous mixturea mixture in which substances are evenly distributed throughout the mixtureheterogenius mixturecan see different parts of the mixture (salt and pepper)solutesmixtures when both substances are evenly mixedsolventsdissolves the solutesolutedissolves in the solventph scaleA range of numbers used to describe how acidic or basic a solution is; ranges from 0 (most acidic) to 14 (most basic). 7 is neutralreactanta chemical substance that is present at the start of a chemical reactionproducta chemical substance formed as a result of a chemical reactionenzymesprotein substances that speed up chemical reactions. what effects ph? tempuratureexothermicgives off heatendothermictakes in heat ccell(biology) the basic structural and functional unit of all organismsprokaryotichaving cells that lack membrane-bound nucleieukaryotichaving cells with 'good' or membrane-bound nucleiwhat does a plant cell have that an animal cell does not? a cell wall, chloroplast, central vacuolewhat does an animal cell have that a plant cell does not? vesicals, mitochondriacell membranea thin membrane around the cytoplasm of a cellcytoplasma jellylike fluid inside the cell in which the organelles are suspendedribosomesmake proteinsnucleusa part of the cell containing DNA and RNA and responsible for growth and reproductionvesicleA membrane bound sac that contains materials involved in transport of the cell. rough ERThat portion of the endoplasmic reticulum studded with ribosomes. smooth ERThat portion of the endoplasmic reticulum that is free of ribosomes. (lipid synthesis occurs here)vacuolea tiny cavity filled with fluid in the cytoplasm of a cell (plant cellchloroplastan organelle found in plant and algae cells where photosynthesis occursmitochondriaPowerhouse of the cell, organelle that is the site of ATP (energy) productionflagellatails that transport cells through surrounding enviromenttissuegroup of cells with similar functionsorgansstructures that carry out specialized jobs within an organ systemlipid bilayerstructure of membrane, two sheets of lipid molcules with tails pointed inward, proteins embedded in bilayer (serve as channels) along with carbohydrate molecules (id markers - recognition)selective permeabilitya process in which a membrane allows some molecules to pass through while keeping others outhypotonicwhen comparing two solutions, the solution with the lesser concentration of soluteshypertonicwhen comparing two solutions, the solution with the greater concentration of solutesisotonic(used of solutions) having the same or equal osmotic pressurediffusionprocess by which molecules tend to move from an area where they are more concentrated to an area where they are less concentratedosmosisdiffusion of water through a selectively permeable membraneactive transportthe movement of materials through a cell membrane using energycellular respirationprocess that releases energy by breaking down glucose and other food molecules in the presence of oxygenATP(adenosine triphosphate) main energy source that cells use for most of their workADPadenosine diphosphate; molecule that ATP becomes when it gives up one of its three phosphate groups