

# STEAM Tech Teams

## Glossary of Terms

[www.STEAMTechTeams.com/glossary-of-terms.html](http://www.STEAMTechTeams.com/glossary-of-terms.html)

ID/Type/OLE	Word/Definition/Link
216	Biomolecules
	Adenine
	n. One of the four bases in DNA or RNA usually represented as "A."
	<a href="https://en.wikipedia.org/wiki/Nucleobase">https://en.wikipedia.org/wiki/Nucleobase</a>
441	Biomolecules
	Adenosine
	n. A purine nucleoside composed of adenine attached to a ribose sugar molecule.
	<a href="https://en.wikipedia.org/wiki/Adenosine">https://en.wikipedia.org/wiki/Adenosine</a>
217	Biomolecules
	Adenosine
	n. Adenine when it is attached to the sugar present in DNA or RNA (deoxyribose or ribose, respectively).
	<a href="https://en.wikipedia.org/wiki/Nucleoside">https://en.wikipedia.org/wiki/Nucleoside</a>
440	Biomolecules
	Adenosine A2A Receptor
	n. A cellular receptor for the protein adenosine.
	<a href="https://en.wikipedia.org/wiki/Adenosine_A2A_receptor">https://en.wikipedia.org/wiki/Adenosine_A2A_receptor</a>
539	Biomolecules
	Agarose
	n. A polysaccharide polymer material generally extracted from seaweed. Frequently used in molecular biology for the separation of large molecules using electrophoresis.
	<a href="https://en.wikipedia.org/wiki/Agarose">https://en.wikipedia.org/wiki/Agarose</a>
527	Biomolecules
	Allele
	n. A variant of a given gene.
	<a href="https://en.wikipedia.org/wiki/Allele">https://en.wikipedia.org/wiki/Allele</a>

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543	<p>Biomolecules</p> <p>Alpha Helix</p> <p>n. A secondary structure of proteins that is right-hand coiled or spiral in form, in which every N-H backbone group donates a hydrogen bond to the backbone C=O group of the amino acid.</p> <p><a href="https://en.wikipedia.org/wiki/Alpha_helix">https://en.wikipedia.org/wiki/Alpha_helix</a></p>
540	<p>Biomolecules</p> <p>Amino Acid</p> <p>n. Organic molecules containing amine (-NH<sub>2</sub>) and carboxyl (-COOH) groups along with a "side chain."</p> <p><a href="https://en.wikipedia.org/wiki/Amino_acid">https://en.wikipedia.org/wiki/Amino_acid</a></p>
141	<p>Biomolecules</p> <p>Amino Sugar</p> <p>n. In chemistry an amino sugar (technically 2-amino-2-deoxysugar) is a sugar molecule (i.e. a glucose or a fructose) in which a hydroxyl (i.e. with an OH-) group has been replaced with an amine (contains a Nitrogen atom) group.</p> <p><a href="https://en.wikipedia.org/wiki/Amino_sugar">https://en.wikipedia.org/wiki/Amino_sugar</a></p>
137	<p>Biomolecules</p> <p>Angstrom</p> <p>n. A unit of measurement in the metric system equal to one ten-billionth of a meter.</p> <p><a href="https://en.wikipedia.org/wiki/%C3%85ngstr%C3%B6m">https://en.wikipedia.org/wiki/%C3%85ngstr%C3%B6m</a></p>
145	<p>Biomolecules</p> <p>Anti-parallel</p> <p>adv. Description of the orientation of two polymer strands that are aligned next to each other but in opposite orientations. Used to describe the two strands in DNA.</p> <p><a href="https://en.wikipedia.org/wiki/Antiparallel_(biochemistry)">https://en.wikipedia.org/wiki/Antiparallel_(biochemistry)</a></p>
130	<p>Biomolecules</p> <p>Atom</p> <p>n. The smallest unit of ordinary matter that has the properties of a chemical element.</p> <p><a href="https://en.wikipedia.org/wiki/Atom">https://en.wikipedia.org/wiki/Atom</a></p>

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449	<p>Biomolecules</p> <p>Ball-and-stick Model</p> <p>n. In chemistry, the ball-and-stick model is a molecular model of a chemical substance which displays both the three-dimensional position of the atoms and bonds between them.</p> <p><a href="https://en.wikipedia.org/wiki/Ball-and-stick_model">https://en.wikipedia.org/wiki/Ball-and-stick_model</a></p>
218	<p>Biomolecules</p> <p>Base</p> <p>n. Nitrogen-containing ring structures with properties of a base found in DNA and RNA. There are four bases in DNA (adenine, cytidine, guanine and thymine) in DNA. In RNA thymine is replaced by uracil.</p> <p><a href="https://en.wikipedia.org/wiki/Nucleobase">https://en.wikipedia.org/wiki/Nucleobase</a></p>
544	<p>Biomolecules</p> <p>Beta Sheet</p> <p>n. A secondary structure in proteins where the beta strands are connected laterally and, thereby, results in a flat structure.</p> <p><a href="https://en.wikipedia.org/wiki/Beta_sheet">https://en.wikipedia.org/wiki/Beta_sheet</a></p>
219	<p>Biomolecules</p> <p>Biocomputer</p> <p>n. Computers constructed of biomolecules instead of classical electronics. The can be based on DNA, RNA, or proteins.</p> <p><a href="https://en.wikipedia.org/wiki/Biological_computing">https://en.wikipedia.org/wiki/Biological_computing</a></p>
436	<p>Biomolecules</p> <p>Cell Communication</p> <p>n. Also referred to as "cell signaling." The inter-cellular communication process that governs the basic activities of cells and coordinates all cell actions.</p> <p><a href="https://en.wikipedia.org/wiki/Cell_signaling">https://en.wikipedia.org/wiki/Cell_signaling</a></p>
220	<p>Biomolecules</p> <p>Cell Cytoplasm</p> <p>n. The part of an eukaryotic cell outside of the nucleus. The cytoplasm is the site of protein synthesis.</p> <p><a href="https://en.wikipedia.org/wiki/Cytoplasm">https://en.wikipedia.org/wiki/Cytoplasm</a></p>

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146	<p>Biomolecules</p> <p>Cell Nucleus</p> <p>n. The part of an eukaryotic cell containing DNA and the site of DNA transcription.</p> <p><a href="https://en.wikipedia.org/wiki/Cell_nucleus">https://en.wikipedia.org/wiki/Cell_nucleus</a></p>
437	<p>Biomolecules</p> <p>Cell Signaling</p> <p>n. Also referred to as "cell communication." The inter-cellular communication process that governs the basic activities of cells and coordinates all cell actions.</p> <p><a href="https://en.wikipedia.org/wiki/Cell_signaling">https://en.wikipedia.org/wiki/Cell_signaling</a></p>
534	<p>Biomolecules</p> <p>Codis Data Base</p> <p>n. Refers to the "Combined DNA Index System." It is the United States' national data base created by the Federal Bureau of Investigation (FBI).</p> <p><a href="https://en.wikipedia.org/wiki/Combined_DNA_Index_System">https://en.wikipedia.org/wiki/Combined_DNA_Index_System</a></p>
221	<p>Biomolecules</p> <p>Complementarity</p> <p>n. The attraction between bases from opposite strands in DNA and RNA leading to the base pairing rules of A-T and G-C in DNA and A-U and G-C in RNA.</p> <p><a href="https://en.wikipedia.org/wiki/Complementarity_(molecular_biology)">https://en.wikipedia.org/wiki/Complementarity_(molecular_biology)</a></p>
445	<p>Biomolecules</p> <p>Corticotropin-releasing Hormone Receptor 1</p> <p>n. As known as "CRF1 Receptor." Binds with corticotropin releasing hormone, a potent mediator of endocrine, autonomic, behavioral and immune responses to stress.</p> <p><a href="https://en.wikipedia.org/wiki/Corticotropin-releasing_hormone_receptor_1">https://en.wikipedia.org/wiki/Corticotropin-releasing_hormone_receptor_1</a></p>
222	<p>Biomolecules</p> <p>Covalent Bond</p> <p>n. A bond created between two atoms through the sharing of electrons.</p> <p><a href="https://en.wikipedia.org/wiki/Covalent_bond">https://en.wikipedia.org/wiki/Covalent_bond</a></p>

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444	<p>Biomolecules</p> <p>CRF1 Receptor</p> <p>n. As known as "Corticotropin-releasing Hormone Receptor 1." Binds with corticotropin releasing hormone, a potent mediator of endocrine, autonomic, behavioral and immune responses to stress.</p> <p><a href="https://en.wikipedia.org/wiki/Corticotropin-releasing_hormone_receptor_1">https://en.wikipedia.org/wiki/Corticotropin-releasing_hormone_receptor_1</a></p>
223	<p>Biomolecules</p> <p>Cytidine</p> <p>n. One of the four bases in DNA and RNA usually represented as "C."</p> <p><a href="https://en.wikipedia.org/wiki/Nucleobase">https://en.wikipedia.org/wiki/Nucleobase</a></p>
224	<p>Biomolecules</p> <p>Cytosine</p> <p>n. Cytidine when attached to a sugar present in DNA or RNA (deoxyribose or ribose, respectively).</p> <p><a href="https://en.wikipedia.org/wiki/Nucleoside">https://en.wikipedia.org/wiki/Nucleoside</a></p>
439	<p>Biomolecules</p> <p>Dalton (Da)</p> <p>n. A standard unit of mass that quantifies mass on an atomic or molecular scale. One unified atomic mass is approximately the mass of one nucleon (either a single proton or neutron).</p> <p><a href="https://en.wikipedia.org/wiki/Unified_atomic_mass_unit">https://en.wikipedia.org/wiki/Unified_atomic_mass_unit</a></p>
153	<p>Biomolecules</p> <p>Diploid</p> <p>adj. Having two copies of each chromosome. Most vertebrates are diploid.</p> <p><a href="https://en.wikipedia.org/wiki/Ploidy_-_Diploid">https://en.wikipedia.org/wiki/Ploidy_-_Diploid</a></p>
139	<p>Biomolecules</p> <p>DNA</p> <p>n. Deoxyribonucleic acid. The biopolymer containing the genetic information and instructions of all known living organisms.</p> <p><a href="https://en.wikipedia.org/wiki/DNA">https://en.wikipedia.org/wiki/DNA</a></p>

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147	<p>Biomolecules</p> <p>DNA Transcription</p> <p>n. The process in which the genetic information in DNA is copied into messenger RNA (mRNA).</p> <p><a href="https://en.wikipedia.org/wiki/Transcription_(biology)">https://en.wikipedia.org/wiki/Transcription_(biology)</a></p>
524	<p>Biomolecules</p> <p>Dominance (Recessive)</p> <p>n. A relationship between alleles of one gene in which the effect on phenotype of one allele masks the contribution of a second allele at the same locus. Often the dominant allele codes for a protein while the recessive allele does not.</p> <p><a href="https://en.wikipedia.org/wiki/Dominance_(genetics)">https://en.wikipedia.org/wiki/Dominance_(genetics)</a></p>
252	<p>Biomolecules</p> <p>Electrolysis (of water)</p> <p>n. Decomposition of the water molecule (H<sub>2</sub>O) in hydrogen (H<sub>2</sub>) and oxygen (O<sub>2</sub>) due to an electric current being passed through the water.</p> <p><a href="https://en.wikipedia.org/wiki/Electrolysis_of_water">https://en.wikipedia.org/wiki/Electrolysis_of_water</a></p>
135	<p>Biomolecules</p> <p>Electron</p> <p>n. A sub-atomic particle bearing negative charge that participates in covalent bonds between atoms.</p> <p><a href="https://en.wikipedia.org/wiki/Electron">https://en.wikipedia.org/wiki/Electron</a></p>
136	<p>Biomolecules</p> <p>Electron Hole</p> <p>n. The absence of an electron in a position where it otherwise could exist.</p> <p><a href="https://en.wikipedia.org/wiki/Electron_hole">https://en.wikipedia.org/wiki/Electron_hole</a></p>
536	<p>Biomolecules</p> <p>Electrophoresis</p> <p>n. The motion of dispersed particles relative to a fluid under the influence of a uniform electric field.</p> <p><a href="https://en.wikipedia.org/wiki/Electrophoresis">https://en.wikipedia.org/wiki/Electrophoresis</a></p>

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311	<p>Biomolecules</p> <p>Ethidium Bromide</p> <p>n. An intercalating agent commonly used as a fluorescing agent in molecular laboratories for techniques such as agarose gel electrophoresis.</p> <p><a href="https://en.wikipedia.org/wiki/Ethidium_bromide">https://en.wikipedia.org/wiki/Ethidium_bromide</a></p>
176	<p>Biomolecules</p> <p>Eukaryote</p> <p>n. Any organism whose cells contain a nucleus enclosed with a membrane. Eukaryotes can be single cell organisms (yeast) or multi-cellular (vertebrates).</p> <p><a href="https://en.wikipedia.org/wiki/Eukaryote">https://en.wikipedia.org/wiki/Eukaryote</a></p>
314	<p>Biomolecules</p> <p>Fluorescence</p> <p>n. The emission of light by a substance that has absorbed light or other electromagnetic radiation. A form of luminescence.</p> <p><a href="https://en.wikipedia.org/wiki/Fluorescence">https://en.wikipedia.org/wiki/Fluorescence</a></p>
313	<p>Biomolecules</p> <p>Fluorescent Tag</p> <p>n. A molecule that is attached chemically to aid in the labelling and detection of a biomolecule such as a protein, antibody or an amino acid.</p> <p><a href="https://en.wikipedia.org/wiki/Fluorescent_tag">https://en.wikipedia.org/wiki/Fluorescent_tag</a></p>
435	<p>Biomolecules</p> <p>Gel Electrophoresis</p> <p>n. A method of separation and analysis of macromolecules (DNA, RNA and proteins) and their fragments based upon their size and/or density and charge.</p> <p><a href="https://en.wikipedia.org/wiki/Gel_electrophoresis">https://en.wikipedia.org/wiki/Gel_electrophoresis</a></p>
438	<p>Biomolecules</p> <p>Glucagon Receptor</p> <p>n. A 62 kDa protein activated by glucagon.</p> <p><a href="https://en.wikipedia.org/wiki/Glucagon_receptor">https://en.wikipedia.org/wiki/Glucagon_receptor</a></p>

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248	<p>Biomolecules</p> <p>Guanine</p> <p>n. One of four bases in DNA and RNA usually represented as "G."</p> <p><a href="https://en.wikipedia.org/wiki/Nucleobase">https://en.wikipedia.org/wiki/Nucleobase</a></p>
227	<p>Biomolecules</p> <p>Guanosine</p> <p>n. Guanine when attached to the sugar present in DNA or RNA (deoxyribose or ribose, respectively).</p> <p><a href="https://en.wikipedia.org/wiki/Nucleoside">https://en.wikipedia.org/wiki/Nucleoside</a></p>
140	<p>Biomolecules</p> <p>Helix</p> <p>n. A type of curved shape in three-dimensional space. In biology, DNA is a helix, with two polymer strands entwined around each other in a helical shape (the well known double helix).</p> <p><a href="https://en.wikipedia.org/wiki/Helix">https://en.wikipedia.org/wiki/Helix</a></p>
535	<p>Biomolecules</p> <p>Hemoglobin</p> <p>n. Referred to as "Hb." The iron-containing oxygen transport metalloprotein in the red blood cells of all vertebrates (except the fish family of Channichthyidae) as well as the tissues of some invertebrates.</p> <p><a href="https://en.wikipedia.org/wiki/Hemoglobin">https://en.wikipedia.org/wiki/Hemoglobin</a></p>
228	<p>Biomolecules</p> <p>Hydrogen Bond</p> <p>n. A non-covalent bond created by the attraction between positive and negative regions of molecules that is important in holding the two strands of DNA together because of attractions between the complementary bases.</p> <p><a href="https://en.wikipedia.org/wiki/Hydrogen_bond">https://en.wikipedia.org/wiki/Hydrogen_bond</a></p>
450	<p>Biomolecules</p> <p>Insulin</p> <p>n. A peptide produced by the beta cells in the pancreatic islets. It regulates the metabolism of carbohydrates, fats and protein. It promotes the absorption of, especially glucose, from the blood into fat, liver and skeletal muscle cells.</p> <p><a href="https://en.wikipedia.org/wiki/Insulin">https://en.wikipedia.org/wiki/Insulin</a></p>



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152	Biomolecules	<p data-bbox="526 384 1464 422">Integrase</p> <p data-bbox="526 432 1464 569">n. An enzyme (a protein that catalyzes or enhances a chemical reaction) that inverts a sequence of DNA by 1) cutting the sugar-phosphate backbone at specific positions, 2) flipping the released segment of double-stranded DNA, 3) and rejoining the DNA.</p> <p data-bbox="526 583 1464 621"><a href="https://en.wikipedia.org/wiki/Integrase">https://en.wikipedia.org/wiki/Integrase</a></p>
229	Biomolecules	<p data-bbox="526 657 1464 695">Integrase (invertase)</p> <p data-bbox="526 705 1464 842">n. An enzyme (a protein that catalyzes or enhances a chemical reaction) that inverts a sequence of DNA by 1) cutting the sugar-phosphate backbone at specific positions, 2) flipping the released segment of double-stranded DNA, 3) and rejoining the DNA.</p> <p data-bbox="526 856 1464 894"><a href="https://en.wikipedia.org/wiki/Site-specific_recombination">https://en.wikipedia.org/wiki/Site-specific_recombination</a></p>
312	Biomolecules	<p data-bbox="526 930 1464 968">Intercalation</p> <p data-bbox="526 978 1464 1047">In Biochemistry, intercalation is the insertion of molecules between planar bases of DNA.</p> <p data-bbox="526 1104 1464 1142"><a href="https://en.wikipedia.org/wiki/Intercalation_(biochemistry)">https://en.wikipedia.org/wiki/Intercalation_(biochemistry)</a></p>
151	Biomolecules	<p data-bbox="526 1173 1464 1211">Invertase</p> <p data-bbox="526 1222 1464 1358">n. An enzyme (a protein that catalyzes or enhances a chemical reaction) that inverts a sequence of DNA by 1) cutting the sugar-phosphate backbone at specific positions, 2) flipping the released segment of double-stranded DNA, 3) and rejoining the DNA.</p> <p data-bbox="526 1373 1464 1411"><a href="https://en.wikipedia.org/wiki/Invertase">https://en.wikipedia.org/wiki/Invertase</a></p>
434	Biomolecules	<p data-bbox="526 1446 1464 1484">Isoelectric Point</p> <p data-bbox="526 1495 1464 1564">n. The pH at which a particular molecule carries no net electrical charge. Commonly denoted as pI or pI(I).</p> <p data-bbox="526 1621 1464 1659"><a href="https://en.wikipedia.org/wiki/Isoelectric_point">https://en.wikipedia.org/wiki/Isoelectric_point</a></p>
446	Biomolecules	<p data-bbox="526 1698 1464 1736">Macromolecule</p> <p data-bbox="526 1747 1464 1816">n. A very large molecule such as a protein, commonly created by the polymerization of smaller subunits.</p> <p data-bbox="526 1873 1464 1911"><a href="https://en.wikipedia.org/wiki/Macromolecule">https://en.wikipedia.org/wiki/Macromolecule</a></p>

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230	<p>Biomolecules</p> <p>Messenger RNA</p> <p>n. The RNA copy, usually represented as mRNA, of a DNA-coded gene used to synthesize proteins.</p> <p><a href="https://en.wikipedia.org/wiki/Messenger_RNA">https://en.wikipedia.org/wiki/Messenger_RNA</a></p>
442	<p>Biomolecules</p> <p>Metabotropic Glutamate Receptor 5</p> <p>n. Also referred to a "mGlu5 Receptor." A G protein coupled receptor that in humans is encoded in the GRM5 gene.</p> <p><a href="https://en.wikipedia.org/wiki/Metabotropic_glutamate_receptor_5">https://en.wikipedia.org/wiki/Metabotropic_glutamate_receptor_5</a></p>
443	<p>Biomolecules</p> <p>mGlu5 Receptor</p> <p>n. Also referred to a "Metabotropic Glutamate Receptor 5." A G protein coupled receptor that in humans is encoded in the GRM5 gene.</p> <p><a href="https://en.wikipedia.org/wiki/Metabotropic_glutamate_receptor_5">https://en.wikipedia.org/wiki/Metabotropic_glutamate_receptor_5</a></p>
132	<p>Biomolecules</p> <p>Micrometer</p> <p>n. A measure of distance equal to one-millionth of a meter.</p>
231	<p>Biomolecules</p> <p>Micron</p> <p>n. A measure of distance equal to .000001 meter also known as a micrometer.</p> <p><a href="https://en.wikipedia.org/wiki/Micrometre">https://en.wikipedia.org/wiki/Micrometre</a></p>
131	<p>Biomolecules</p> <p>Molecule</p> <p>n. A group of atoms held together by covalent bonds.</p> <p><a href="https://en.wikipedia.org/wiki/Molecule">https://en.wikipedia.org/wiki/Molecule</a></p>

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144	<p>Biomolecules</p> <p>Monomer</p> <p>n. Identifiable minimal units that are linked together to form a polymer chain by covalent bonds.</p> <p><a href="https://en.wikipedia.org/wiki/Monomer">https://en.wikipedia.org/wiki/Monomer</a></p>
529	<p>Biomolecules</p> <p>Morphology</p> <p>n. Refers to an organism's outward appearance.</p> <p><a href="https://en.wikipedia.org/wiki/Morphology_(biology)">https://en.wikipedia.org/wiki/Morphology_(biology)</a></p>
530	<p>Biomolecules</p> <p>Mutation</p> <p>n. A permanent alteration of the nucleotide sequence of the genome of an organism, virus or extrachromosomal DNA.</p> <p><a href="https://en.wikipedia.org/wiki/Mutation">https://en.wikipedia.org/wiki/Mutation</a></p>
133	<p>Biomolecules</p> <p>Nanometer</p> <p>n. A measure of distance equal to .000000001 meter, or 10 Angstroms.</p> <p><a href="https://en.wikipedia.org/wiki/Nanometre">https://en.wikipedia.org/wiki/Nanometre</a></p>
142	<p>Biomolecules</p> <p>Nucleobase (Base)</p> <p>n. One of four nucleic acids that express the information in DNA or RNA: adenine, thymine, cytosine and guanine.</p> <p><a href="https://en.wikipedia.org/wiki/Nucleobase">https://en.wikipedia.org/wiki/Nucleobase</a></p>
232	<p>Biomolecules</p> <p>Nucleoside</p> <p>n. A DNA or RNA base when attached to either deoxyribose (DNA) or ribose (RNA).</p> <p><a href="https://en.wikipedia.org/wiki/Nucleoside">https://en.wikipedia.org/wiki/Nucleoside</a></p>

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233	<p>Biomolecules</p> <p>Nucleotide</p> <p>n. A DNA or RNA nucleoside attached to 1-3 phosphate groups. The monomers in DNA and RNA are nucleotides monophosphates.</p> <p><a href="https://en.wikipedia.org/wiki/Nucleotide">https://en.wikipedia.org/wiki/Nucleotide</a></p>
542	<p>Biomolecules</p> <p>Peptide Bond</p> <p>n. A covalent chemical bond linking two consecutive amino acid monomers along a peptide or protein chain.</p> <p><a href="https://en.wikipedia.org/wiki/Peptide_bond">https://en.wikipedia.org/wiki/Peptide_bond</a></p>
538	<p>Biomolecules</p> <p>pH</p> <p>n. "Potential of Hydrogen." The numeric scale used to specify the acidity or basicity of an aqueous solution.</p> <p><a href="https://en.wikipedia.org/wiki/PH">https://en.wikipedia.org/wiki/PH</a></p>
528	<p>Biomolecules</p> <p>Phenotype</p> <p>n. The composite of an organism's observable characteristics or traits such as morphology, development, behavior etc.</p> <p><a href="https://en.wikipedia.org/wiki/Phenotype">https://en.wikipedia.org/wiki/Phenotype</a></p>
234	<p>Biomolecules</p> <p>Phosphate</p> <p>n. A molecule containing phosphorous and oxygen with four oxygens bound to the phosphorous.</p> <p><a href="https://en.wikipedia.org/wiki/Phosphate">https://en.wikipedia.org/wiki/Phosphate</a></p>
537	<p>Biomolecules</p> <p>PKA</p> <p>n. Acid dissociation constant often written as "pKa.". The pH at which a molecule has no "net charge."</p> <p><a href="https://en.wikipedia.org/wiki/Acid_dissociation_constant">https://en.wikipedia.org/wiki/Acid_dissociation_constant</a></p>

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ID/Type/OLE	Word/Definition/Link
448	<p>Biomolecules</p> <p>Plasmin (Plasminogen)</p> <p>n. An enzyme in the blood that degrades many blood plasma proteins.</p> <p><a href="https://en.wikipedia.org/wiki/Plasmin">https://en.wikipedia.org/wiki/Plasmin</a></p>
143	<p>Biomolecules</p> <p>Polymer</p> <p>n. A large molecule, often linear which is made up of repeated identical or similar monomers such as plastics (nylon etc.) or biopolymers (DNA, RNA, and proteins).</p> <p><a href="https://en.wikipedia.org/wiki/Polymer">https://en.wikipedia.org/wiki/Polymer</a></p>
447	<p>Biomolecules</p> <p>Polymer</p> <p>n. A large molecule composed of repeated subunits or monomers.</p> <p><a href="https://en.wikipedia.org/wiki/Polymer">https://en.wikipedia.org/wiki/Polymer</a></p>
235	<p>Biomolecules</p> <p>Polymerase</p> <p>n. Enzymes that synthesizes DNA or RNA by copying a parental DNA template. RNA polymerase makes messenger RNA used to synthesize proteins. The process of making messenger RNA by RNA polymerase copying of DNA is called transcription.</p> <p><a href="https://en.wikipedia.org/wiki/RNA_polymerase">https://en.wikipedia.org/wiki/RNA_polymerase</a></p>
315	<p>Biomolecules</p> <p>Polymerase Chain Reaction (PCR)</p> <p>n. A techniques used in Molecular Biology to multiply a single copy, or a few copies of DNA.</p> <p><a href="https://en.wikipedia.org/wiki/Polymerase_chain_reaction">https://en.wikipedia.org/wiki/Polymerase_chain_reaction</a></p>
236	<p>Biomolecules</p> <p>Polyploidy</p> <p>n. Having more than two copies of each chromosome, a common feature of certain plants.</p> <p><a href="https://en.wikipedia.org/wiki/Polyploid">https://en.wikipedia.org/wiki/Polyploid</a></p>

# STEAM Tech Teams

## Glossary of Terms

[www.STEAMTechTeams.com/glossary-of-terms.html](http://www.STEAMTechTeams.com/glossary-of-terms.html)

ID/Type/OLE	Word/Definition/Link
531	<p>Biomolecules</p> <p>Primer</p> <p>n. A short strand of RNA or DNA that serves as a starting point for DNA synthesis. It is required for DNA replication because the enzymes that catalyze this process can only add new nucleotides to an existing strand of DNA.</p> <p><a href="https://en.wikipedia.org/wiki/Primer_(molecular_biology)">https://en.wikipedia.org/wiki/Primer_(molecular_biology)</a></p>
237	<p>Biomolecules</p> <p>Promoter</p> <p>n. The DNA sequence where RNA transcription begins. Protein factors recognize this sequence and recruit RNA polymerase to begin transcription.</p> <p><a href="https://en.wikipedia.org/wiki/Promoter_(genetics)">https://en.wikipedia.org/wiki/Promoter_(genetics)</a></p>
526	<p>Biomolecules</p> <p>Recessive (Dominance)</p> <p>n. A relationship between alleles of one gene in which the effect on phenotype of one allele masks the contribution of a second allele at the same locus. Often the dominant allele codes for a protein while the recessive allele does not.</p> <p><a href="https://en.wikipedia.org/wiki/Dominance_(genetics)">https://en.wikipedia.org/wiki/Dominance_(genetics)</a></p>
520	<p>Biomolecules</p> <p>Restriction Endonuclease</p> <p>n. Also referred to as "restriction enzyme." An enzyme that cleaves DNA into fragments at or near specific recognition sites within the molecule known as "restriction sites."</p> <p><a href="https://en.wikipedia.org/wiki/Restriction_enzyme">https://en.wikipedia.org/wiki/Restriction_enzyme</a></p>
519	<p>Biomolecules</p> <p>Restriction Enzyme</p> <p>n. Also referred to as "restriction endonuclease." An enzyme that cleaves DNA into fragments at or near specific recognition sites within the molecule known as "restriction sites."</p> <p><a href="https://en.wikipedia.org/wiki/Restriction_enzyme">https://en.wikipedia.org/wiki/Restriction_enzyme</a></p>
521	<p>Biomolecules</p> <p>Restriction Fragment</p> <p>n. A DNA fragment resulting from the cutting of a DNA strand by a restriction enzyme (restriction endonuclease).</p> <p><a href="https://en.wikipedia.org/wiki/Restriction_fragment">https://en.wikipedia.org/wiki/Restriction_fragment</a></p>

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ID/Type/OLE	Word/Definition/Link
177	<p>Biomolecules</p> <p>Retrovirus</p> <p>n. A single-stranded, positive-sense RNA virus with a DNA intermediate.</p> <p><a href="https://en.wikipedia.org/wiki/Retrovirus">https://en.wikipedia.org/wiki/Retrovirus</a></p>
523	<p>Biomolecules</p> <p>RFLP Analysis</p> <p>n. Refers to "Restriction Fragment Length Polymorphism." A technique that exploits variations in homologous DNA sequences.</p> <p><a href="https://en.wikipedia.org/wiki/Restriction_fragment_length_polymorphism">https://en.wikipedia.org/wiki/Restriction_fragment_length_polymorphism</a></p>
238	<p>Biomolecules</p> <p>Ribosome</p> <p>n. The large RNA and protein complex that is the site of protein synthesis by the translation of the sequence in mRNA into a sequence of amino acids in the protein product.</p> <p><a href="https://en.wikipedia.org/wiki/Ribosome">https://en.wikipedia.org/wiki/Ribosome</a></p>
239	<p>Biomolecules</p> <p>RNA</p> <p>n. Ribonucleic acid is a polymer containing bases (A, G, C, and U) that is copied from DNA during transcription. There are a variety of types of RNA in the cell which have different shapes and functions. Messenger RNA codes for proteins.</p> <p><a href="https://en.wikipedia.org/wiki/RNA">https://en.wikipedia.org/wiki/RNA</a></p>
149	<p>Biomolecules</p> <p>RNA Polymerase (RNAP)</p> <p>n. An enzyme that produces primary transcription RNA and, thereby, promotes creation of proteins from the Messenger RNA (mRNA) template.</p> <p><a href="https://en.wikipedia.org/wiki/RNA_polymerase">https://en.wikipedia.org/wiki/RNA_polymerase</a></p>
148	<p>Biomolecules</p> <p>RNA Translation</p> <p>n. Translation is a process in which ribosomes in the cell's cytoplasm create proteins following "Transcription" of DNA to RNA.</p> <p><a href="https://en.wikipedia.org/wiki/Translation_(biology)">https://en.wikipedia.org/wiki/Translation_(biology)</a></p>

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ID/Type/OLE	Word/Definition/Link
541	<p>Biomolecules</p> <p>Side Chain</p> <p>n. A chemical group attached to the core part of a molecules or the backbone of the molecule.</p> <p><a href="https://en.wikipedia.org/wiki/Side_chain">https://en.wikipedia.org/wiki/Side_chain</a></p>
240	<p>Biomolecules</p> <p>Sugar</p> <p>n. Any of a number of simple biomolecules containing carbon, oxygen, and hydrogen. In DNA and RNA two sugars occur, deoxyribose (DNA) and ribose (RNA - five carbon sugars that form rings and attach to the bases of DNA or RNA.</p> <p><a href="https://en.wikipedia.org/wiki/Ribose">https://en.wikipedia.org/wiki/Ribose</a></p>
241	<p>Biomolecules</p> <p>Thymidine</p> <p>n. Thymine when attached to deoxyribose.</p> <p><a href="https://en.wikipedia.org/wiki/Nucleoside">https://en.wikipedia.org/wiki/Nucleoside</a></p>
242	<p>Biomolecules</p> <p>Thymine</p> <p>n. One of the four bases found in DNA but NOT in RNA usually represented as "T."</p> <p><a href="https://en.wikipedia.org/wiki/Nucleobase">https://en.wikipedia.org/wiki/Nucleobase</a></p>
243	<p>Biomolecules</p> <p>Transcription</p> <p>n. The process in which the genetic information in DNA is copied into messenger RNA.</p> <p><a href="https://en.wikipedia.org/wiki/Transcription_(biology)">https://en.wikipedia.org/wiki/Transcription_(biology)</a></p>
245	<p>Biomolecules</p> <p>Transcriptor</p> <p>n. The term coined by the Endy Research Group to describe a molecular transistor made up of a transcription termination sequence found at the end of genes and signaling RNA polymerase to stop making mRNA.</p> <p><a href="https://en.wikipedia.org/wiki/Transcriptor">https://en.wikipedia.org/wiki/Transcriptor</a></p>



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ID/Type/OLE		Word/Definition/Link
244	Biomolecules	Translation
		n. The process in which the genetic information in messenger RNA is changed into proteins.
		<a href="https://en.wikipedia.org/wiki/Translation">https://en.wikipedia.org/wiki/Translation</a>
246	Biomolecules	Uracil
		n. One of the four bases found in RNA but NOT in DNA, usually represented as "U."
		<a href="https://en.wikipedia.org/wiki/Nucleobase">https://en.wikipedia.org/wiki/Nucleobase</a>
247	Biomolecules	Uridine
		n. Uracil when attached to ribose.
		<a href="https://en.wikipedia.org/wiki/Nucleoside">https://en.wikipedia.org/wiki/Nucleoside</a>