**Biology Vocabulary Flash Cards 2016**

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| --- | --- | --- |
| **Term****Independent Variable** | **Definition**

|  |
| --- |
| **The one variable an experimenter changes; it is graphed on the x axis** |

 |
| **Term**

|  |
| --- |
| **Dependent Variable** |

 | **Definition**

|  |
| --- |
| **The variable that is measured for a result; it is graphed on the y axis** |

 |
| **Term**

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| --- |
| **Control Group** |

 | **Definition**

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| --- |
| **Subjects in the experiment that do not receive the experimental treatment; needed for comparison** |

 |
| **Term**

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| --- |
| **Placebo** |

 | **Definition**

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| --- |
| **An inert or inactive substance** |

 |
| **Term**

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| --- |
| **Bias** |

 | **Definition**

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| --- |
| **a preconceived idea of how an experiment will turn out- good scientists avoid this** |

 |
| **Term**

|  |
| --- |
| **Good experiments include:** |

 | **Definition**

|  |
| --- |
| **question, testable hypothesis, control group, experimental group, one independent variable, multiple trials** |

 |
| **Term**

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| --- |
| **carbohydrate** |

 | **Definition**

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| --- |
| **primary source of energy for living things, made of C,H,O found in fruits, vegetables, and grains** |

 |
| **Term**

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| --- |
| **monosaccharide** |

 | **Definition**

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| --- |
| **single sugars such as glucose and fructose** |

 |
| **Term**

|  |
| --- |
| **disaccharide** |

 | **Definition**

|  |
| --- |
| **two sugar monomers such as sucrose or lactose** |

 |
| **Term**

|  |
| --- |
| **polysaccharide** |

 | **Definition**

|  |
| --- |
| **chain of sugars such as cellulose, glycogen, and starchused for energy storage or structure** |

 |
| **Term**

|  |
| --- |
| **cellulose** |

 | **Definition**

|  |
| --- |
| **structural polysaccharide of plant cell walls- humans can't digest it (fiber)** |

 |
| **Term**

|  |
| --- |
| **starch** |

 | **Definition**

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| --- |
| **energy storing polysaccharide of plants** |

 |
| **Term**

|  |
| --- |
| **glycogen** |

 | **Definition**

|  |
| --- |
| **energy storing polysaccharide of animals** |

 |
| **Term**

|  |
| --- |
| **glucose** |

 | **Definition**

|  |
| --- |
| **building block of carbohydrates; molecule that begins cellular respiration** |

 |
| **Term**

|  |
| --- |
| **protein** |

 | **Definition**

|  |
| --- |
| **diverse molecules used for structure, transport, as enzymes, muscle, and antibodies** |

 |
| **Term**

|  |
| --- |
| **antibody** |

 | **Definition**

|  |
| --- |
| **protein molecule used by immune system to fight infection** |

 |
| **Term**

|  |
| --- |
| **amino acid** |

 | **Definition**

|  |
| --- |
| **building block of proteins** |

 |
| **Term**

|  |
| --- |
| **lipid** |

 | **Definition**

|  |
| --- |
| **molecule that contains twice the energy of carbs; used for energy, insulation, and cell membranes** |

 |
| **Term**

|  |
| --- |
| **enzyme** |

 | **Definition**

|  |
| --- |
| **protein catalysts that speed chemical reactions to maintain homeostasis** |

 |
| **Term**

|  |
| --- |
| **factors affecting enzyme activity** |

 | **Definition**

|  |
| --- |
| **pH and temperature; there is an optimal level for each** |

 |
| **Term**

|  |
| --- |
| **pH scale** |

 | **Definition**

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| --- |
| **0-14, 7 is neutral, 0-6 acidic, 8-14 basic, 6-8 is zone of life (stomach is very acidic)** |

 |
| **Term**

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| --- |
| **ribosome** |

 | **Definition**

|  |
| --- |
| **manufactures proteins for cell by assembling chains of amino acids** |

 |
| **Term**

|  |
| --- |
| **nucleus** |

 | **Definition**

|  |
| --- |
| **houses the eukaryotic cell's DNA and directs cell activities** |

 |
| **Term**

|  |
| --- |
| **vacuole** |

 | **Definition**

|  |
| --- |
| **stores water and waste in eukaryotic cells; larger in plants** |

 |
| **Term**

|  |
| --- |
| **mitochondria** |

 | **Definition**

|  |
| --- |
| **performs cellular respiration to make ATP for eukaryotic cells** |

 |
| **Term**

|  |
| --- |
| **chloroplast** |

 | **Definition**

|  |
| --- |
| **uses the sun, water, and carbon dioxide to perform photosynthesis; makes organic compounds** |

 |
| **Term**

|  |
| --- |
| **cell wall** |

 | **Definition**

|  |
| --- |
| **outer boundary of plants, fungi, and bacteriaplant contains cellulose** |

 |
| **Term**

|  |
| --- |
| **cell membrane** |

 | **Definition**

|  |
| --- |
| **selectively permeable bilayer; outer boundary of animal cells; made of lipids** |

 |
| **Term**

|  |
| --- |
| **plant vs animal cell** |

 | **Definition**

|  |
| --- |
| **plants have cell wall, chloroplast, and larger vacuole than animal cells** |

 |
| **Term**

|  |
| --- |
| **prokaryotic** |

 | **Definition**

|  |
| --- |
| **cells lacking a nucleus; today's bacteria are this type** |

 |
| **Term**

|  |
| --- |
| **eukaryotic** |

 | **Definition**

|  |
| --- |
| **cells with a nucleus and other membrane bound organelles** |

 |
| **Term**

|  |
| --- |
| **All cells have...** |

 | **Definition**

|  |
| --- |
| **a cell membrane, ribosomes, DNA, cytoplasm** |

 |
| **Term**

|  |
| --- |
| **osmosis** |

 | **Definition**

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| --- |
| **movement of water across a membrane from an area of high concentration to low concentration** |

 |
| **Term**

|  |
| --- |
| **flagella** |

 | **Definition**

|  |
| --- |
| **whip-like structure used for movement by some cells** |

 |
| **Term**

|  |
| --- |
| **cilia** |

 | **Definition**

|  |
| --- |
| **short hair-like structures used for movement** |

 |
| **Term**

|  |
| --- |
| **pseudopodia** |

 | **Definition**

|  |
| --- |
| **false foot used for movement** |

 |
| **Term**

|  |
| --- |
| **contractile vacuole** |

 | **Definition**

|  |
| --- |
| **special organelle in some organisms to prevent bursting from too much water moving in** |

 |
| **Term**

|  |
| --- |
| **density of ice** |

 | **Definition**

|  |
| --- |
| **less than fresh water so it floats; < 1.0g/mL because of hydrogen bonding due to polarity of water** |

 |
| **Term**

|  |
| --- |
| **mitosis** |

 | **Definition**

|  |
| --- |
| **creation of identical daughter cells for growth and repair; 2n to 2n** |

 |
| **Term**

|  |
| --- |
| **meiosis** |

 | **Definition**

|  |
| --- |
| **process that makes haploid gametes (2n to n) leads to genetic variation through crossing over** |

 |
| **Term**

|  |
| --- |
| **gamete** |

 | **Definition**

|  |
| --- |
| **haploid sex cells such as egg or sperm; produced by meiosis** |

 |
| **Term**

|  |
| --- |
| **chromosome** |

 | **Definition**

|  |
| --- |
| **structure made of DNA; carries an organism's traits, found in nucleus of eukaryotes** |

 |
| **Term**

|  |
| --- |
| **allele** |

 | **Definition**

|  |
| --- |
| **an alternative version of a gene** |

 |
| **Term**

|  |
| --- |
| **homozygous** |

 | **Definition**

|  |
| --- |
| **both alleles of a gene are the same i.e. HH or hh** |

 |
| **Term**

|  |
| --- |
| **heterozygous** |

 | **Definition**

|  |
| --- |
| **both alleles for a gene are different; i.e. Hh or Tt** |

 |
| **Term**

|  |
| --- |
| **dominant** |

 | **Definition**

|  |
| --- |
| **a trait that will appear if just one copy is present in the organism** |

 |
| **Term**

|  |
| --- |
| **recessive** |

 | **Definition**

|  |
| --- |
| **a trait that will only appear if there is no dominant allele i.e tt or hh** |

 |
| **Term**

|  |
| --- |
| **sex linked trait** |

 | **Definition**

|  |
| --- |
| **a trait usually passed from female to male offspring; carried on X chromosome (ex colorblindness)** |

 |
| **Term**

|  |
| --- |
| **variation** |

 | **Definition**

|  |
| --- |
| **slight differences between members of the same species** |

 |
| **Term**

|  |
| --- |
| **adaptation** |

 | **Definition**

|  |
| --- |
| **a trait that increases the chances of survival for an organism in its environment** |

 |
| **Term**

|  |
| --- |
| **natural selection** |

 | **Definition**

|  |
| --- |
| **process in which those organisms best suited to the environment reproduce and pass on their traits** |

 |
| **Term**

|  |
| --- |
| **phenotype** |

 | **Definition**

|  |
| --- |
| **the physical appearance or traits an organism has** |

 |
| **Term**

|  |
| --- |
| **genotype** |

 | **Definition**

|  |
| --- |
| **an organism's allele pairs such as HH or Tt** |

 |
| **Term**

|  |
| --- |
| **transcription** |

 | **Definition**

|  |
| --- |
| **process of copying the information in DNA to mRNA** |

 |
| **Term**

|  |
| --- |
| **RNA** |

 | **Definition**

|  |
| --- |
| **single stranded molecule with nucleotides A,U,G, and C** |

 |
| **Term**

|  |
| --- |
| **mRNA** |

 | **Definition**

|  |
| --- |
| **carries information of DNA to the ribosome for protein synthesis** |

 |
| **Term**

|  |
| --- |
| **translation** |

 | **Definition**

|  |
| --- |
| **"reading" mRNA by tRNA to assemble a chain of amino acids at the ribosome** |

 |
| **Term**

|  |
| --- |
| **gene** |

 | **Definition**

|  |
| --- |
| **a segment of DNA that codes for a protein** |

 |
| **Term**

|  |
| --- |
| **mutation** |

 | **Definition**

|  |
| --- |
| **a change in a DNA sequence; usually but not always harmful** |

 |
| **Term**

|  |
| --- |
| **causes of mutation** |

 | **Definition**

|  |
| --- |
| **radiation, uv light, chemical mutagens** |

 |
| **Term**

|  |
| --- |
| **mutualism** |

 | **Definition**

|  |
| --- |
| **symbiotic relationship in which both organisms benefit (ex bees and flowers)** |

 |
| **Term**

|  |
| --- |
| **commensalism** |

 | **Definition**

|  |
| --- |
| **symbiotic relationship in which one organism benefits and the other is unaffected** |

 |
| **Term**

|  |
| --- |
| **parasitism** |

 | **Definition**

|  |
| --- |
| **one organism benefits while the other is harmed** |

 |
| **Term**

|  |
| --- |
| **autotroph** |

 | **Definition**

|  |
| --- |
| **organisms such as plants and some bacteria that can make their own food** |

 |
| **Term**

|  |
| --- |
| **heterotrophs** |

 | **Definition**

|  |
| --- |
| **organisms that cannot manufacture food (animals and fungi)** |

 |
| **Term**

|  |
| --- |
| **chemotrophs** |

 | **Definition**

|  |
| --- |
| **organisms found near hot vents on ocean floor that make their own food with inorganic molecules and no light** |

 |
| **Term**

|  |
| --- |
| **cellular respiration** |

 | **Definition**

|  |
| --- |
| **process performed by mitochondria to make ATP using glucose and oxygen and releasing carbon dioxide and water** |

 |
| **Term**

|  |
| --- |
| **aerobic respiration** |

 | **Definition**

|  |
| --- |
| **breakdown of carbohydrates for energy in the presence of oxygen; makes lots of ATP** |

 |
| **Term**

|  |
| --- |
| **anaerobic respiration** |

 | **Definition**

|  |
| --- |
| **breakdown of carbohydrates without using oxygen; used by bacteria, yeast, and very hard working muscle** |

 |
| **Term**

|  |
| --- |
| **producers** |

 | **Definition**

|  |
| --- |
| **first step in food chain; plants, contain large amounts of energy** |

 |
| **Term**

|  |
| --- |
| **consumers** |

 | **Definition**

|  |
| --- |
| **heterotrophs that feed on producers or other heterotrophs** |

 |
| **Term**

|  |
| --- |
| **decomposers** |

 | **Definition**

|  |
| --- |
| **bacteria and fungi that break down dead organisms and return the molecules to the environment** |

 |
| **Term**

|  |
| --- |
| **length** |

 | **Definition**

|  |
| --- |
| **measured in meters; micrometers, millimeters, centimeters, meters, kilometers** |

 |
| **Term**

|  |
| --- |
| **mass** |

 | **Definition**

|  |
| --- |
| **micrograms, milligrams, grams, kilograms** |

 |
| **Term**

|  |
| --- |
| **niche** |

 | **Definition**

|  |
| --- |
| **the role an organism plays in its habitat- where it lives, what it eats, what eats it, etc** |

 |
| **Term**

|  |
| --- |
| **succession** |

 | **Definition**

|  |
| --- |
| **change in an ecosystem as one community replaces another** |

 |
| **Term**

|  |
| --- |
| **primary succession** |

 | **Definition**

|  |
| --- |
| **occurs where no ecosystem has existed before such as a volcanic island; pioneer species move in and make soil** |

 |
| **Term**

|  |
| --- |
| **secondary succession** |

 | **Definition**

|  |
| --- |
| **takes place where an ecosystem already was such as after a forest fire** |

 |
| **Term**

|  |
| --- |
| **nervous system** |

 | **Definition**

|  |
| --- |
| **brain, spinal cord, and nerves; respond to stimuli and send messages throughout body** |

 |
| **Term**

|  |
| --- |
| **digestive system** |

 | **Definition**

|  |
| --- |
| **breaks down food to monomers for absorption to meet energy needs (mouth, stomach, intestines)** |

 |
| **Term**

|  |
| --- |
| **endocrine system** |

 | **Definition**

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| --- |
| **sends chemical messages called hormones through bloodstream** |

 |
| **Term**

|  |
| --- |
| **respiratory system** |

 | **Definition**

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| --- |
| **moves oxygen and carbon dioxide; involves lungs or gills** |

 |
| **Term**

|  |
| --- |
| **excretory system** |

 | **Definition**

|  |
| --- |
| **filters waste products from blood; kidneys are primary organ** |

 |
| **Term**

|  |
| --- |
| **circulatory system** |

 | **Definition**

|  |
| --- |
| **moves needed molecules throughout body; heart and blood vessels in animals, xylem in plants** |

 |
| **Term**

|  |
| --- |
| **biological magnification** |

 | **Definition**

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| --- |
| **type of pollution when a toxin builds up in concentration as it moves through a food chain (DDT)** |

 |
| **Term**

|  |
| --- |
| **Acid precipitation** |

 | **Definition**

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| --- |
| **rain or snow with a low pH caused by burning fossil fuels; especially harmful to aquatic organisms** |

 |
| **Term**

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| --- |
| **Introduced species** |

 | **Definition**

|  |
| --- |
| **non-native species brought to live or accidentally released in new place; often outcompete native species** |

 |