



Ecology

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Is the scientific study of the interactions of organisms in their environment

Ecosystem

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Community of organisms and their environment e.g. seashore ecosystem

Biosphere

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The part of the earth where organisms can live

Habitat

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Part of an ecosystem where organisms live



LC Biology – Key Definitions



Community

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The different groups of organisms living in an ecosystem

Niche

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The role of an organism in an ecosystem

Abiotic Factors

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Non-living features of the environment that affect the community
e.g. aspect

Biotic Factors

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Living factors of the environment that affect the community
e.g. food

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Food Web

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The interconnection between two or more food chains

Food Chain

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Pathway along which energy is passed from one organism to another

Trophic Level

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Feeding stage in a food chain

Pyramid of numbers

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Diagram that shows the number of organisms at each trophic level



LC Biology – Key Definitions



Competition

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When organisms in an ecosystem struggle for a resource that is in short supply

Contest Competition

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A physical confrontation between two organisms and only one can win the resource

Scramble Competition

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A struggle for a resource in an ecosystem with all the organisms obtaining a small amount of the resource

Predation

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The killing, catching and eating of another animal



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Parasitism

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When one organism live in or on a second organism from a different species, feeding on it and causing it harm

Symbiosis

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When two organisms, from different species lives together and at least one benefits

Mutualism

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When two organisms from different species live together and both benefit e.g. clover and rhizobium

Commensalism

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When two organisms from different species live together and one benefits and the other neither benefits or is harmed e.g. birds nest in a tree



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Conservation

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The wise management of the environment and its resources

Pollution

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The addition of anything harmful to the environment e.g. gases from burning fossil fuels

Eutrophication

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When nutrients run off from the land into a lake/river which causes the dense growth of plants in the water and the death of fish and other organisms

Decomposers

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Microorganisms and other organisms that return nutrients to the environment by death and decay

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Hypothesis

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An educated
guess

Experiment

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Designed to
test the
hypothesis

Control

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Used to compare
the results of an
experiment

Data

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The collection
of observations
and results

Cut dotted horizontal lines. Fold vertical line.



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Replicate

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A repeat of the experiment

Theory

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A hypothesis supported by results gathered over a long period of time

Double-blind Testing

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Neither the experimenter nor the test group know the treatment that is being given

Observation

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Taking in information about the natural world



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Law/Principle

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A definite and
factual
explanation

**Random
Selection**

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Choosing without
a method or
conscious choice

Placebo

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A substance used
as a control in an
experiment

Diversity

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The large variety
of organisms on
earth

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Cell

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The basic unit of structure and function in an organism

Tissue

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A group of cells specialised for a particular function e.g. connective tissue

Organ

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A group of tissues working together for a particular function e.g. heart

Tissue Culture

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The growth of cells in a sterile nutrient medium

Cut dotted horizontal lines. Fold vertical line.



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Prokaryotic

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Do not have a membrane bound nucleus or membrane bound organelles

Eukaryotic

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Have a membrane bound nucleus and membrane bound organelles

Diffusion

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The movement of a substance from an area of high concentration to an area of low concentration along a concentration gradient

Osmosis

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Is the movement of water molecules from an area of high concentration to an area of low concentration across a selectively permeable membrane

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Active Transport

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The movement of a substance from an area of low concentration to an area of high concentration against a concentration gradient. It requires ATP (energy)

Turgor

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The pressure of the cell contents against the cell wall

Plasmolysis

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The shrinkage of a plant cell due to the loss of water by osmosis

Selectively Permeable

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Only allows some substance to pass through the cells membranes

Cut dotted horizontal lines. Fold vertical line.





Substrate

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Substances on which an enzyme acts

Enzyme

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A biological catalyst which is made of protein

Denaturation

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The change in the structure of the active site preventing the enzyme from bonding with a specific substrate

Immobilised Enzymes

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Enzymes that are fixed in an inert material





Metabolism

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The sum of all the chemical reactions in a living organism

Optimum Activity

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Enzymes working at its most efficient and best rate

Specific

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Each enzyme only acts on a particular substrate

Anabolism

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When small molecules are built into larger molecules using energy e.g. Photosynthesis



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Catabolism

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When big molecules are broken down into smaller molecules releasing energy e.g. Respiration

Cell Continuity

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The ability of cells to divide and survive

Somatic Cells

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All the normal body cells that are not gametes

Cancer

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When normal cells lose control of the rate and number of mitotic divisions



LC Biology – Key Definitions



**Cleavage
Furrow**

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Is the separation of two identical nuclei during mitosis to form one cell each

Alleles

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Alternative form of a gene e.g. T and t

Chromosome

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A thread like structure made up of DNA and proteins containing genes, found in the nucleus

Dominant

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The gene that is expressed in the phenotype of the heterozygous condition e.g. Tt, T is dominant

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Recessive

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The gene that is masked in the phenotype by the dominant allele e.g. Tt, t is recessive

Fertilisation

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The fusion of two haploid gametes to form a diploid zygote

Gamete

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A haploid sex cell capable of fusion

Genes

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Unit of heredity made up of DNA that codes for one trait

Cut dotted horizontal lines. Fold vertical line.



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Genotype

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The genetic
makeup of an
organism

Heterozygous

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When two different
alleles of a gene
control the same trait
e.g. Tt

Homozygous

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When two identical
alleles control the
same trait e.g. TT

Mitosis

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Cell division where two
cells are produced each
with the same number
of chromosomes

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Incomplete Dominance

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When neither allele is completely expressed in the phenotype of the heterozygous condition e.g. Roan breed of cattle

Phenotype

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The physical appearance of an organism

Meiosis

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Cell division which produces 4 cells. Each cell has half the number of chromosomes as the parent cell

Homologous Chromosomes

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Pairs of chromosomes that contain genes that control the same characteristics



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Sex Chromosomes

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A pair of chromosomes that determine the sex of the individual e.g. XX = female or XY = male in humans

Sex Linkage

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When genes are carried on the sex chromosomes (X or Y) e.g. haemophilia

Linkage

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When genes are present on the same chromosome

Autosomes

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The 22 pairs of chromosomes that are not sex linked



LC Biology – Key Definitions



Mendel's Law of Segregation

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Traits are controlled by a pair of factors. Only one of any pair can enter a gamete

Mendel's Law of Independent Assortment

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When gametes are formed, either a pair of alleles can enter a gamete with either of another pair

DNA Profiling

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The examination of a sample of DNA for a pattern or band to compare

Non-coding DNA

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Does not carry the information to make a protein



LC Biology – Key Definitions



Genetic Engineering

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The manipulation and alteration of genes or genotype to give valuable traits to the organism

Genetic Screening

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Testing for the presence or absence of genes

Evolution

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Inheritable change within a species overtime in response to the change of their environment and by natural selection

Mutation

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A change in the DNA that alters the genetic code



Cut dotted horizontal lines. Fold vertical line.

LC Biology – Key Definitions



Species

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A group of organisms capable of interbreeding to produce fertile offspring

Variation

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Differences within a population or species

Heredity

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Genetic inheritance from parents to offspring

Complimentary base pairs

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Each base has a corresponding base/pair e.g. Cytosine and Guanine are complimentary pairs



LC Biology – Key Definitions



Translation

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Translating the genetic code of mRNA in the cytoplasm to make a specific sequence of amino acids

Transcription

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Transferring the genetic code from DNA to mRNA in the nucleus

DNA

(Deoxyribonucleic Acid)

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Located in the nucleus and makes up genes and chromosomes. Forms a double helix and its base sequence forms the genetic code

Bioprocessing

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Using microorganisms to form single celled protein

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Binary Fission

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The reproduction of bacteria asexually. Two genetically identical cells are produced

Plasmid

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A loop of bacteria within a bacterium which can code for antibiotic resistance

Endospore

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Produced by bacteria when under unfavourable conditions as a survival method

Chemosynthetic

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Use the energy released from chemical reactions to make food e.g. rhizobium



LC Biology – Key Definitions



Photosynthetic

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Use light energy to produce food

Saprophytic

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Feed on or take in dead organic matter

Bioreactor

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Where bioprocessing occurs

Batch Processing

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A fixed amount of nutrient and bacteria are placed in a bioreactor in the beginning

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Continuous flow
processing

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Nutrient is constantly
added to the
bioreactor throughout
processing

Antibiotic

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Produced by
microorganisms to
inhibit the growth of
bacteria

Antibiotic
resistance

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When antibiotics
no longer kill
bacteria

Budding

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The asexual
reproduction of
unicellular fungi e.g.
Yeast

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Osmoregulation

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The maintenance of water and salt balance in an organism

Obligate Parasite

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Viruses can only replicate in a host cell by using its metabolism

Amino Acid

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The building blocks of proteins joined together by peptide bonds

Protein

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A chain of many amino acids

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



**Trace
Element**

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Minerals needed in small amounts in the body e.g. Iron, Zinc and Copper

Monosaccharide

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A single unit of a carbohydrate e.g. glucose and fructose

Disaccharide

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Two units of a carbohydrate e.g. Sucrose and Maltose

Polysaccharide

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Many units of carbohydrates e.g. starch, cellulose and glycogen

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Aerobic Respiration

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Is the enzyme controlled release of energy from food in the presence of oxygen

Anaerobic Respiration

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Is the enzyme controlled release of energy from food in the absence of oxygen

Glycolysis

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Is the breakdown of glucose to pyruvate during respiration in the cytoplasm to produce two NADH and two ATP molecules

Krebs Cycle

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Second stage of respiration after glycolysis, converts Acetyl CoA to Carbon Dioxide and NADH in the stroma of the mitochondria



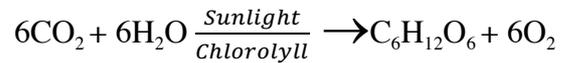
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Photosynthesis

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The process by which plants use light energy to produce glucose from carbon dioxide and water.



Light Stage

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Light-dependent stage of photosynthesis that occurs in the thylakoid membrane of the granum in the chloroplast and produces ATP, NADPH and Oxygen

Dark Stage/Calvin Cycle

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Light-independent stage of photosynthesis that occurs in the stroma in the chloroplast and produces glucose

ATP (Adenosine Triphosphate)

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Made up of adenine (amino acid), ribose (sugar) and three phosphates. ATP stores and provides energy in cells



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ADP (Adenosine Diphosphate)

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Made up of adenine (amino acid), ribose (sugar) and two phosphates. ADP is a low energy molecule which is needed to make ATP by adding another phosphate

NAD (Nicotinamide Adenine Dinucleotide)

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A carrier molecule used in aerobic respiration that traps electrons and protons and transfers the to an electron transport chain

NADP
(Nicotinamide Adenine Dinucleotide Phosphate)

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A carrier molecule used in photosynthesis that picks up energised electrons in the light stage and transfers them along with protons (now NADPH) to the dark stage to combine with Carbon Dioxide to make glucose

Nutrition

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The way in which living organisms obtain and use food



LC Biology – Key Definitions



Response

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The reaction of living organisms to stimuli in their environment

Biomolecule

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A complex molecule made up of different elements

Chromatin

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Chromosomes that are not dividing

Cell Membrane

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Controls what substances enter and leave the cell

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Ribosome

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Made up of RNA and protein, functions to make proteins and found in the cytoplasm

Cell Wall

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makes exams easier

Only found in plant cells. Functions in giving shape and support

Catalyst

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makes exams easier

Speeds up chemical reactions without affecting itself

Chitin

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A carbohydrate found in the cell walls of fungi



LC Biology – Key Definitions



Asepsis

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The removal of
contaminating
microorganisms

Sterile

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An environment free
of contaminating
microorganisms

Monera

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Organisms that do
not have a have a
membrane bound
nucleus e.g. Bacteria

Protista

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Single celled,
eukaryotic organisms
e.g. Amoeba



LC Biology – Key Definitions



Fungi

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Single celled and multicellular heterotrophs which do not have chlorophyll. Cell walls are made of chitin e.g. yeast and rhizopus

Taxonomy

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The classification of organisms based on similarities in structure and form

Mutagen

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Agents that promote mutations e.g. carcinogens

Natural Selection

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The process by which species become better adapted overtime due to the advantages of genetic changes and mutations



LC Biology – Key Definitions



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studyclix.ie
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A carbohydrate found in the cell walls of fungi



Cut dotted horizontal lines. Fold vertical line.

LC Biology – Key Definitions



Transpiration

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The loss of water vapour from a plant as it diffuses out through the stomata and into the atmosphere

Adhesion

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The water molecules in the plant are attracted to the wall of the xylem

Cohesion

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The water molecules in the plant are attracted to each other

Pollination

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Is the transfer of pollen from the anther of a stamen to the stigma of the carpel in flowers of the same species

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Self-Pollination

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Pollen is transferred from the anther to the stigma on the same plant

Cross-Pollination

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Pollen is transferred to the stigma of a flower on a different plant of the same species

Endosperm

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Is the source of nourishment in an endospermic plant

Cotyledon

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Is the source of nourishment of a non-endospermic plant e.g. broad bean



LC Biology – Key Definitions



Dicotyledon

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The reproduction of a flowering plant with two cotyledons. Food is passed directly from cotyledon to embryo e.g. broad bean

Monocotyledon

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The reproduction of a flowering plant with one cotyledon. Food is stored in the endosperm and is transported from the endosperm to the cotyledon to the embryo e.g. maize

Plumule

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Forms the stem of a new plant developed from the embryo

Radical

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Forms the root of a new plant developed from the embryo



LC Biology – Key Definitions



Dormancy

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Period of reduced metabolic activity in plants where germination does not occur

Germination

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When the embryo of a plant begins to regrow after a period of dormancy and the conditions (water, oxygen and temperature) are optimal

Epigeal

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A method of germination in plants when the cotyledon rise above the soil and becomes photosynthetic

Hypogeal

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A method of germination in plants when the cotyledon stays below the soil and shrivel, the plumule sprouts as leaves



LC Biology – Key Definitions



Tropism

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The growth of a plant in response to a stimulus

Phototropism

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Plants growth in response to light

Geotropism

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Plants growth in response to gravity

Hydrotropism

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Plants growth in response to water

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Thigmotropism

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Plants growth in response to touch

Chemotropism

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Plants growth in response to chemicals

Herbaceous

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Plants with a green soft stem, that photosynthesise

Dermal Tissue

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Protective outer layer of tissue in plants

Cut dotted horizontal lines. Fold vertical line.



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Vascular Tissue

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Transport tissue in plants composed of the xylem, transports water and dissolved minerals and the phloem that transports glucose

Ground Tissue

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Is all the other tissue in plants which is the bulk of the plant

Meristematic Tissue

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Plant cells that are actively dividing by mitosis in the meristem

Stimulus

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A change in the environment that causes a response in an organism



Cut dotted horizontal lines. Fold vertical line.

LC Biology – Key Definitions



Vegetative Propagation

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Asexual reproduction in plants where offspring come from one parent and are genetically identical to the parent

Growth Regulators

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Chemicals that are responsible for growth in plants

Homeostasis

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The maintenance of a constant internal environment

Endotherms

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Organisms whose internal temperature remains constant despite its surroundings e.g. mammals



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Ectotherms

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Organisms whose internal temperature changes with environmental changes
e.g. lizards

Shivering

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The skeletal muscles generate heat by contracting and relaxing quickly

Vasoconstriction

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When the capillaries at the surface of the skin narrow to move the blood to the core area and maintain heat

Piloerection

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When the erector muscles in the skin erect to trap air and prevent loss of heat



LC Biology – Key Definitions



Sweating

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The cool down of the body by the release of sweat from the sweat glands

Vasodilation

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When the capillaries at the surface of the skin widen to release heat

Epidermis

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The upper most layer of skin

Gaseous Exchange

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The transfer of gases between an organism and its external environment



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Excretion

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Is the elimination of waste products of metabolism from the body

Secretion

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The process where substances are passed from the kidney cells into the glomerular

Reabsorption

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The process by which useful substances that are in the glomerular filtrate are returned to the blood

Mechanical Digestion

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The physical breakdown of food by crushing the food into smaller pieces by the teeth or muscles



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LC Biology – Key Definitions



Chemical Digestion

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The chemical breakdown of food by enzymes, bile and hydrochloric acid

Peristalsis

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The contractions of muscles that move food along the alimentary canal

Ingestion

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The taking in and consuming of food into the mouth

Absorption

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The movement of single biomolecules from the gut to the blood





Egestion

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The removal of undigested material

Appendicular Skeleton

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The pectoral girdle, pelvic girdle, arms and legs

Axial Skeleton

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The skull, ribcage, spine, sternum and coccyx

Osteocytes

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Non-dividing and inactive bone cells



LC Biology – Key Definitions



Osteoclasts

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Remove bone lamella so reduce bone size

Growth Plates

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Produce cartilage which is ossified to make new bone

Osteoblasts

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Cells that make new bone by producing a calcium matrix

Joint

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Where two bones meet e.g. synovial joint

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Tendons

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Connect muscle to bone
e.g. Achilles tendon
connects calf muscles to
the heel bone

Ligament

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Connect bone to
bone

Cartilage

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Allows friction free
movement and
prevents chipping of
bones

Muscle

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Contractile tissue
that allows
movement



LC Biology – Key Definitions



Antagonistic Muscles

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A pair of muscles that work in opposing motions e.g. the biceps contract and the triceps relax to raise the arm

Bone

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Hard tissue made of collagen, calcium and phosphorus

Compact bone

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Hard tissue which forms the rigid outer part of bone that provides strength

Endoskeleton

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An internal skeleton e.g. the skeleton of vertebrates



LC Biology – Key Definitions



Cerebrum

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The largest part of the brain also known as the forebrain and functions in learning and memory

Pituitary Gland

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An endocrine gland that is located at the base of the brain and controls the secretion of hormones

Medulla Oblongata

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Located in the brainstem, it controls the involuntary actions of the body such as breathing and swallowing

Cerebellum

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Also known as the hind brain, it is responsible for muscle coordination and balance



LC Biology – Key Definitions



Hypothalamus

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Part of the brain that is responsible for homeostasis

Thalamus

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Located above the hypothalamus in the brain, it is the sorting centre for incoming impulses from the nervous system

Meninges

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Three layer membrane that contains cerebrospinal fluid to protect the brain and spinal cord

The Central Nervous System

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Consists of the brain and spinal cord



LC Biology – Key Definitions



The Peripheral Nervous System

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All the body nerves linked to the central nervous system

Sensory Neuron

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Transfers nerve impulses towards the central nervous system

Motor Neuron

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Transfer nerve impulses away from the central nervous system to a muscle or gland

Neurotransmitter

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Is a chemical messenger which transfers nerve impulses across a synapse



LC Biology – Key Definitions



Synapse

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The region where two neurons meet to allow a nerve impulse pass from one neuron to another

Reflex Arc

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A circuit in the nervous system that provides an automatic response to a stimulus which is not controlled by the brain

Reflex Action

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An automatic response to a stimulus caused by a reflex arc which is not controlled by the brain

Dorsal Root

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A spinal nerve where sensory neurons enter the spinal cord



LC Biology – Key Definitions



Ventral Root

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A spinal nerve where motor neurons leave the spinal cord

Retina

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Has light receptor cells known as rods and cones. Functions in the conversion of light into nerve impulses

Myopia

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Short sighted, distant objects seem blurred as the lens focuses the image in front of the retina

Hyperopia

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Long sighted, near objects seem blurred as the lens focuses the image behind the retina





Sound

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Is a pressure wave caused by vibrations

Eustachian Tube

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Tube in the middle ear that leads to the pharynx, it equalise air pressure when swallowing to prevent damage to the ear drum

Ossicles

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Three small bones in the ear called the hammer, anvil and stirrup which amplify and dampen vibrations

Cochlea

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Has very small hairs that sense vibration of the endolymph (fluid) which convert to electrical impulses and are sent to the brain via the auditory nerve





Hormone

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Chemical messengers that are produced by endocrine glands. They are protein in nature and are transported in the blood

Endocrine Gland

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Ductless glands that release hormones directly into the blood e.g. Thyroid gland

Exocrine Gland

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Substances are secrete into a duct before their release e.g. sweat gland

Closed Circulatory System

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Blood is carried in blood vessels and moves in one direction under high pressure



LC Biology – Key Definitions



Pulmonary Circuit

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The heart pumps deoxygenated blood from the heart to the lungs

Systemic Circuit

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Oxygenated being pumped from the heart to the body

Diastole

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When the heart is relaxed and no contractions are occurring

Systole

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Contractions of the heart making a heartbeat

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Pulse

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A wave of vibration which passes down the wall of the arteries following a ventricle contraction

Blood

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Is a connective tissue and matrix in which blood cells suspend

Monocytes

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Engulf and destroy pathogens by phagocytosis

Lymphocytes

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White bloods cells that produce antibodies to fight antigens

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Blood Pressure

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The force of blood against the walls of the arteries.
High blood pressure damages the endothelium in the arteries

Valves

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Prevent the back flow of blood

Plasma

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Liquid part of blood consisting mostly of water

Lymph

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Clear liquid in the lymphatic system formed by collecting extra cellular fluid from around the cells

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Lymph Nodes

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Spherical-shaped organs of the lymphatic system that filter foreign particles from lymph and produces lymphocytes and antibodies

Lymph Vessels

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Are present in all organs and tissues in the body, functions in the transport of lymph

Subclavian Vein

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Located in the right shoulder, this is where the lymph re-enters the blood system

Villi

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Finger like projections located in the small intestine that contain lacteals (lymph capillaries) that absorb fats and blood capillaries to absorb nutrients



LC Biology – Key Definitions



Antigen

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A foreign object which stimulates the production of antibodies

Antibody

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Is a protein produced by the lymphocytes in response to an antigen

Immunity

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Is the ability if the body to resist entry of pathogens or the effects of their toxins

Active Immunity

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Is the stimulation of antibody production when exposed to a particular antigen naturally or artificially (vaccine). It is long lasting



LC Biology – Key Definitions



Passive Immunity

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Is the stimulation of antibody production from an external source naturally (breast feeding) or artificially (tetanus injection) to fight the antigen. It is short lived

Induced Immunity

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Is the ability to resist disease caused by pathogens by the production of antibodies

Auto-immune Disease

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An immune response when the body starts to attack itself by recognising healthy cells as foreign cells and begins to attack it e.g. rheumatoid arthritis

Vaccine

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Non-disease causing dose of a pathogen which stimulates antibody production



LC Biology – Key Definitions



Helper T Cells

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Recognises an antigen and activate Killer T cells to stimulate antibody production

Killer T Cells

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Recognises, attacks and bursts infected cells. Secrete perforin which fills the infected cells and causes them to burst

Suppressor T Cells

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Stop immune response by inhibiting B and T cell production

Memory T Cells

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Remember antigens allowing a quick response when the cells are under attack

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



B Lymphocyte

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Produced in the bone marrow and migrate to the lymph nodes to mature. When exposed to an antigen, B cells replicate and some form memory B cells which provide a rapid response if a second exposure occurs

T Lymphocyte

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Produced in the bone marrow, mature in the thymus and migrate to the lymph nodes. There are four types : Helper, Killer, Suppressor and Memory T cells

FSH (Follicle Stimulating Hormone)

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Secreted by the pituitary gland, FSH stimulates :
1. Cells in the testes to undergo mitosis and produce sperm
2. Development of Graafian follicle in the ovaries, stimulates ovary to produce oestrogen

LH (Luteinising Hormone)

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Secreted by the pituitary gland, LH stimulates production of testosterone in males and stimulates ovulation and progesterone production in females

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LC Biology – Key Definitions



Testosterone

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Hormone produced in the testis of males, it is responsible for the secondary sexual characteristics

Oestrogen

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Hormone produced in the ovaries in females, it is responsible for secondary sexual characteristics and the repair of the uterine wall

Progesterone

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Hormone produced in the ovaries in females after ovulation, maintains the endometrium during pregnancy and menstrual cycle

Copulation

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Is the insertion of an erect penis into the vagina



LC Biology – Key Definitions



Zygote

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What is formed when a haploid male gamete and a haploid female gamete fuse to make a diploid nucleus

Morula

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Is a ball of undifferentiated cells that form from a zygote as a result of mitosis

Blastocyst

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Fluid filled ball of embryo cells with an outer layer called the trophoblast. Muscular contractions and cilia move the blastocyst to the uterus

Embryo

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The stage following a blastocyst of a new organism after fertilisation

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Foetus

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After the first 8 weeks an embryo is referred to as a foetus, all organs are developed and will be known as the foetus for the rest of pregnancy

Implantation

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The embedding of the blastocyst into the endometrium to begin pregnancy

Germ Layers

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The three basic layers of the cells in the blastocyst. The Ectoderm, Mesoderm and Endoderm

Placenta

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Forms from the trophoblast (outer layer in the blastocyst) and the endometrium. It is fully formed after 12 weeks, acts as a link between the foetus and mother and acts as a barrier to prevent blood or hormones mixing

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Amnion

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Amniotic fluid filled sack that encloses and protects the embryo

Umbilical Cord

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Connects the placenta to the embryo, carrying nutrients to the embryo and waste away

Oxytocin

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The hormone secreted by the pituitary gland that causes the walls of the uterus to contract and the cervix to dilate to begin labour

Lactation

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The production of milk by the mammary glands after giving birth, stimulated by the hormone prolactin

Cut dotted horizontal lines. Fold vertical line.



LC Biology – Key Definitions



Contraception

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The prevention of fertilisation and implantation by different methods e.g. condom, birth control pill, vasectomy

Infertility

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A condition in either males or females which causes conception and pregnancy to be difficult or impossible

In-Vitro Fertilisation

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The fusion of a sperm and egg outside the body that are then implanted into the wall of the uterus to begin pregnancy

Labour

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The breakdown of the amniotic sac, the dilation of the cervix to 10 cm and the contraction of the uterus



LC Biology – Key Definitions



Parturition

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The passing of the baby through the birth canal, being born and the cutting and clamping of the umbilical cord

Afterbirth

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The passing of the placenta out of the uterus

Menstruation

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The shedding of the endometrium as fertilisation has not occurred in females every 28 days

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