

# Glossary

## Word Meaning

### A

Abdomen	The part of the body below the diaphragm
Abomasum	The final compartment of the stomach of ruminants. This the 'true' stomach where muscular walls churn the food and gastric juice is secreted
Absorption	Passage of digested food from the gut into the blood
Accessory gland	A gland that produces secretions that make up the liquid portion of semen
Acetylcholine	A neurotransmitter released at a synapse
Acoustic	Relating to sound
Active transport	The movement of substances across a membrane against the concentration gradient Requires energy
Adipose tissue	Connective tissue in which the cells are filled with fat or lipid
Adrenal cortex	Outer portion of adrenal gland
Adrenal medulla	Inner portion of adrenal gland
Albumin	The most common of the proteins in the plasma
Aldosterone	The hormone produced by the adrenal cortex
Alimentary	Concerning nutrition
Alimentary canal	The long canal from the mouth to the anus through which food passes as it is digested and absorbed
Alkaline	Containing few hydrogen ions. pH above 7
Alveolus	An air sac in the lung, where gas exchange takes place
Amino acids	Molecules containing nitrogen that are the building blocks of proteins
Amphibian	Vertebrate Class containing the frogs and toads
Amylases	Enzymes that split carbohydrates like starch and glycogen into monosaccharides like glucose
Anaemia	A condition involving a low number of red blood cells or haemoglobin in blood
Antagonistic muscles	A pair of muscles that work together such that as one contracts the other relaxes and vice versa.
Anterior	Nearer to the front of the body (usually used in human anatomy)
Anterior pituitary gland	Anterior portion of pituitary gland
Antibodies	Proteins made in response to a stimulating molecule called an antigen The basis for the immune response
Anticoagulant	A substance that prevents blood clotting
Antidiuretic	A substance that inhibits urine production
Antidiuretic hormone	A hormone produced by posterior pituitary gland that stimulates water reabsorption from the kidney tubule
Antigens	A substance that stimulates the body to produce an antibody
Anus	Distal end of rectum
Aorta	The main artery to body and head from heart
Apex	The pointed end of a cone shaped structure e.g. heart
Appendage	A structure attached to the body
Aqueous humor	The watery fluid that fills the anterior chamber of the eye
Arteriole	A small, almost microscopic, artery
Artery	A blood vessel that carries blood away from the heart
Articulate	The point of contact between bones. Where they move against each other
Appendage	A structure attached to the body
Aqueous humor	The watery fluid that fills the anterior chamber of the eye
Arteriole	A small, almost microscopic, artery
Artery	A blood vessel that carries blood away from the heart
Articulate	The point of contact between bones. Where they move against each other
Articulation	A joint. Point of contact between 2 bones
Atlas	First cervical vertebra
Atom	A unit of matter that comprises a chemical element
Atrioventricular valve	A valve that prevents blood flow backwards from ventricle to atrium
Atrium (pl. atria)	One of two cranial chambers of heart

Auditory ossicle	One of 3 small bones in middle ear
Autonomic nervous system	The part of the vertebrate nervous system that innervates smooth and cardiac muscle and glandular tissues and governs involuntary actions. Consists of the sympathetic nervous system and the parasympathetic nervous system.
Axillary lymph node	A lymph node under junction of forelimb and body
Axis	The second cervical vertebra
Axon	A long extension from the neuron that carries nerve impulses away from the cell body

## B

Ball and socket joint	A synovial joint where rounded end of one bone fits into cup-shaped depression of another
Barb	The part of the feather that sticks out of the shaft
Barbules	The parts of a feather that grow out of the barbs They have hooks and rolled edges to lock the barbs together
Basement membrane	The thin membrane between epidermis and dermis
Basophil	A white blood cell with granules in the cytoplasm
Biceps	The muscle that extends from the shoulder to the elbow responsible for flexing the forearm
Bilateral	Including both sides
Bile	An alkaline secretion from liver that helps break down fats into small droplets
Binocular vision	The placement of the eyes such that both see the same wide area but from slightly different angles
Binomial	The two-part Latinized name of a species, consisting of genus and species names
Blastocyst	A hollow ball of cells that develop from the fertilized ovum
Blind spot	The area of retina at end of optic nerve where there are no receptor cells
Blood	The fluid that circulates in the blood vessels
Blood pressure	The pressure of blood on the walls of the blood vessels
Body cavity	A space within the body that contains various organs
Bowman's capsule	The double walled globe at proximal end of nephron. Encloses glomerulus
Brain stem	The part of the brain just above the spinal cord. Contains the medulla oblongata
Breed	A race or variety
Bronchiole	A branch of the bronchi in the respiratory system
Bronchus	One of the large branches of the trachea
Buccal	To do with the mouth

## C

Callus	A thickening of the skin or growth of new bone tissue in and around a fracture
Canines	The long, cone-shaped teeth just behind the incisors.
Carbohydrate	An organic compound containing carbon, hydrogen and oxygen Made up of sugar subunits
Cardiac cycle	A complete heartbeat consisting of systole and diastole
Cardiac muscle	The muscle that makes up the wall of the heart Striated branched fibres
Cardiovascular system	The body system comprising the heart, blood vessels and blood
Carnassial teeth	The modified premolars and molars in carnivores that slice against each other like scissors for shearing flesh and bone.
Carotid artery	The artery from aorta that supplies the head and brain
Carpal	A bone of the "wrist"
Cartilage	Dense connective tissue found at ends of long bones, in trachea, ear pinna Also forms the skeleton of the foetus
Cataract	A condition in which the lens becomes cloudy resulting in blurred vision.
Caudal	Nearer to the tail than
Caudal vena cava	The large vein that collects blood from the body caudal to the heart
Cell	The basic structural and functional unit of all organisms
Cell division	The process by which a cell reproduces itself Two types: mitosis and meiosis
Cell inclusion	A substance produced by cell that is free in cytoplasm ie not enclosed by a membrane
Cellular respiration	The chemical pathway that produces energy in the cell It consumes a fuel, generally glucose, in the presence of oxygen

Central nervous system	The part of the nervous system consisting of the brain and spinal cord
Cephalic	To do with the head
Cerebellum	The part of the vertebrate hindbrain located dorsally; functions in unconscious coordination of movement and balance
Cerebral cortex	The surface of the cerebrum; the largest and most complex part of the mammalian brain, containing sensory and motor nerve cell bodies of the cerebrum
Cerebrospinal fluid	The fluid that circulates around and within brain and spinal cord
Cerebrum	The dorsal portion of the brain composed of right and left hemispheres; the integrating center for memory, learning, emotions
Cervical vertebrae	The neck vertebrae
Cervix	The neck of the uterus
Chemoreceptor	A receptor that detects chemicals
Chorionic gonadotrophin	The hormone secreted by the placenta that prevents uterine contractions before labour and prepares the mammary glands for lactation
Choroid	The middle coat of the eyeball
Chromosome	One of the small dark staining bodies in the cell nucleus Contains the DNA
Chyle	The milky fluid found in the lacteals of the small intestine
Chyme	The semi fluid mixture of partly digested food and digestive secretions in the stomach and small intestine
Cilium (pl. cilia)	A hair like process projecting from a cell Used to move cell substances along the surface of the cell
Class	The taxonomic grouping of related, similar orders; category above order and below phylum
Clavicle	The collar bone
Clot	The process that changes liquid blood to a gelatinous mass
Coagulation	The process by which blood clots
Coccyx	The tail bones
Coccygeal vertebrae	The vertebrae of the tail
Cochlea	The coiled tube forming the portion of the inner ear that converts sound waves to nerve impulses
Collagen	A protein that is the main organic constituent of connective tissue
Colon	Part of the large intestine.
Colostrum	The first milk, it contains antibodies.
Common bile duct	The duct that carries both bile and pancreatic juice into the small intestine
Compact bone	Dense bone made up of Haversian systems
Conditioned Reflex	The response that is elicited by a stimulus after training has taken place
Condyle	A rounded protuberance at the ends of some bones where it forms an articulation with another bone
Cone	A light sensitive receptor in the retina that responds to colour
Congenital	Present at the time of birth
Conjunctiva	The delicate membrane covering the cornea of the eye
Connective tissue	One of the 4 basic tissue types of the body. Binds and supports Consists of cells and fibres in a matrix
Constipation	Decreased defecation due to decreased mobility of the intestines
Continuous breeding	When breeding continues throughout the year
Cornea	The transparent anterior layer of the eye through which the iris can be seen
Coronary artery	The artery that supplies the heart muscle
Corpus luteum	A yellow endocrine gland formed in the empty ovarian follicle after ovulation
Cortex	The outer layer of an organ
Costal	To do with a rib
Cowper's gland	One of the accessory glands of the male reproductive system
Cranial	Towards the head
Cranial nerve	One of the 12 nerves that leave the brain
Cranium	The brain case that surrounds and protects the brain
Crop	The bag-like structure at the base of the oesophagus in birds In many birds it stores food before it enters the stomach
Crop-milk	A secretion produced by glands in the wall of the crop of in pigeons and doves Parents regurgitate it to feed their young
Cross section.	Crosswise slice of an animal or organ
Cryptorchidism	Undescended testes
Cutaneous	To do with the skin
Cytology	The study of cells
Cytosol	The semi fluid portion of the cytoplasm

## D

Dehydration	Excessive loss of water from the body or its parts
Denaturation	Disruption of the structure of a protein by heat, acids etc. to make it inactive
Dendrite	A nerve cell process that carries the nerve impulses towards the cell body
Dental formula	The formula that describes the numbers of the different kinds of teeth
Dentine	The tissue below the enamel in teeth
Dermis	The layer of dense connective tissue lying under the epidermis
Diabetes insipidus	The condition caused by under secretion of antidiuretic hormone (ADH) Symptom: excretion large amounts dilute urine
Diabetes mellitus	The condition caused by under secretion of insulin Symptoms: raised blood glucose levels, glucose in urine
Diaphragm	The dome shaped skeletal muscle separating the thoracic from the abdominal cavities
Diaphysis	The shaft of a long bone
Diarrhoea	Frequent defecation of liquid faeces
Diastema	The space in the jaw in animals that have no (or reduced) canines
Diastole	The phase of the heartbeat involving the relaxation of the ventricles
Diastolic blood pressure	Blood pressure in the arteries between the passage of the pulses
Diffusion	A passive process of movement of molecules from a region of high concentration to one of low concentration
Digestion	The mechanical and physical breakdown of food
Digitigrade locomotion	Locomotion on the "fingers" as in cats and dogs
Dilate	To expand or swell
Diploid	Having a double set of chromosomes one maternal, one paternal
Directional terms	Terms that describe the locations of structures in relation to other structures or locations in the body.
Disaccharides	Double sugar, consisting of two joined monosaccharides
Distal	Farther away from the trunk of the body or point of origin
Diuretic	A chemical that reduces Antidiuretic hormone production and increases urine volume
Dorsal	Nearer the back of the animal than
Duodenum	First part of the small intestine

## E

Echolocation	The use of high frequency sound like sonar and radar by animals (i.e. whales and bats) to locate objects in the surrounding environment
Effector	A muscle or gland that responds to a motor neuron impulse
Egestion	The elimination of indigestible waste products from the body
Electrolyte	A compound that separates into charged particles or ions
Electron microscope	A microscope that focuses an electron beam through a specimen, resulting in resolving power a thousand-fold greater than that of a light microscope.
Element	Any substance that cannot be broken down to any other substance
Embryo	The young of any organism in an early stage of development
Emulsification	The breakdown of large fat particles to smaller ones in the presence of bile
Enamel	The hard white substance covering the crown of teeth
Endocrine gland	A ductless gland that secretes hormones into the blood
Endometrium	The inner lining of the uterus
Endoplasmic reticulum	The network of membranous channels running through the cytoplasm of cells
Endothelium	The layer of squamous epithelium that lines blood vessels
Enzyme	A substance that increases the speed of a chemical reaction
Eosinophil	A white blood cell with granules in the cytoplasm
Epidermis	The thin outer layer of the skin
Epididymis	The organ composed of convoluted tubules that lies on the border of the testis Where sperm mature
Epiglottis	The cartilage on the top of the larynx that closes the windpipe during swallowing
Epiphyseal line	The remnant of epiphyseal plate at end of long bone
Epiphyseal plate	The cartilaginous plate at the end of a long bone where bone growth occurs
Epiphysis	The end of a long bone
Epithelial tissue	Tissue that forms outer part of skin, lines blood vessels, hollow organs and passages in the body
Erythrocyte	A red blood cell

Essential amino acids	The 10 amino acids that can not be made by animals and must be acquired in the diet
Eustachian tube	The passage connecting middle ear to pharynx Equalises air pressure in middle and outer ear
Evolution	All the changes that have transformed life on Earth from its earliest beginnings to the diversity that characterizes it today
Excretion	To cast out material from the body, cell or tissue
Exocrine gland	A gland that secretes substances into a duct
Exocytosis	The discharge of substances through the plasma membrane
Expiration	Breathing out
Extension	Bending of a joint so that the angle between the bones increases.
Extracellular fluid	Fluid outside body cells

## F

Facilitated diffusion	Diffusion across a membrane using a carrier substance
Fallopian tube	A slender tube through which eggs pass from an ovary to the uterus
Fats	Biological compounds consisting of three fatty acids linked to one glycerol molecule
Feedback system	The sequence of events where information about the status of a situation is continually fed back to the central control region
Femur	The long bone between the pelvis and the knee
Fertilisation	Penetration of ovum by sperm and union of nuclei
Fetlock	The joint between the metacarpals or metatarsals and the phalanges in horse
Fibrin	The insoluble protein formed from fibrinogen
Fibrinogen	The protein in blood plasma essential for blood clotting
Fibula	The lateral bone of the lower hind limb
Filtrate	The fluid produced by filtration of blood in the nephron
Flagellum	A long hair like process e.g. tail of sperm
Flexion	The movement involving decreasing the angle between two bones
Fluoroxylate	An anticoagulant used for biochemical tests for glucose
Foetus	Later stage of development of a young animal
Follicle	The cavity surrounding the developing ovum
(Follicle stimulating hormone FSH)	Hormone secreted by anterior pituitary gland Stimulates development of ovarian follicle
Foramen	A hole in a bone for passage of vessels or nerves
Foramen magnum	The hole at the base of the skull for passage of the spinal cord
Fossa	A furrow or shallow depression in a bone
Fovea	The area of the retina of greatest concentration of cone cells Area of sharpest vision
Functional caecum	The enlarged large intestine and caecum occupied by cellulose digesting micro-organisms

## G

Gall bladder	The small pouch that stores bile
Gamete	A reproductive cell - sperm or ovum
Ganglion	A group of nerve cells outside central nervous system
Gas exchange	The process in which oxygen from inhaled air is transferred into the blood and carbon dioxide from the blood is transferred into the alveoli.
Gastric juice	The digestive secretion produced by glands in the wall of the stomach
Gene	A biological unit of heredity
Gestation	The period of foetal development inside the uterus
Girdle	An encircling or arching arrangement of bones
Gizzard	The second part of the stomach of birds In seed eating birds it contains pebbles and its muscular walls help grind the food
Gland	A collection of cells that secrete substances
Gliding joint	A synovial joint with flat articulating surfaces that permits limited movements e.g. between carpals and tarsals
Glomerular capsule	See Bowman's capsule
Glomerulus	Tuft of capillaries surrounded by the Bowman's capsule in nephron
Glottis	Vocal cords
Glucose	The smallest sugar Major energy source for all cells

Glycerol	A molecule that combines with three fatty acid molecules to form a fat or oil
Glycogen	A highly branched polymer of glucose Energy store in body
Goitre	A condition involving enlargement of thyroid gland
Golgi complex apparatus	A cell organelle concerned with packaging, processing and secretion of organic molecules
Gonad	The ovary and testes
Graafian follicle	The mature ovarian follicle
Grey matter	Area of the nervous system consisting of cell bodies
Growth hormone	A hormone secreted by the anterior pituitary gland Stimulates growth, particularly of the skeleton

## H

Haematocrit	The percentage of blood made up of red blood cells Also called packed cell volume (PCV)
Haematuria	Urine that contains red blood cells
Haemoglobin	Pigment containing iron in red blood cells that allows them to carry oxygen
Haemolysis	The escape of haemoglobin from a red blood cell
Haemorrhage	Bleeding
Haploid	Having half the normal number of chromosomes, produced by meiosis
Haversian canal	The canal down centre of a Haversian system
Haversian system	The columns of boney tissue that make up compact bone
Heparin	A naturally occurring anticoagulant Also used in laboratory tests for heavy metals
Hepatic	To do with the liver
Hepatic portal vessel	The blood vessel that carries blood from the intestines to the liver
Hinge joint	A synovial joint that allows movement in only one plane e.g. elbow
Histamine	A substance secreted from white cells and platelets that is involved in the inflammatory response
Hock	The joint (between the tarsals and metatarsals)
Homoiothermic	'Warm-blooded' animals that regulate their body temperature
Hormone	A secretion from an endocrine gland
Humerus	The bone of the upper forearm between the scapula and the radius and ulna
Hyperglycemia	Elevated blood glucose level
Hypertension	High blood pressure
Hyperthermia	High body temperature
Hypertonic	Having an osmotic pressure higher than a solution with which it is compared
Hypotension	Low blood pressure
Hypotonic	Having an osmotic pressure lower than a solution with which it is compared

## I

Ileum	The terminal part of the small intestine
Immunity	Being resistant to injury or invasion by microorganisms
Implantation	The attachment of blastocyst to lining of uterus
Impotence	The inability to copulate
Incisors	The chisel-shaped 'biting off' teeth at the front of the mouth
Induced ovulation	When ovulation is stimulated by mating as in cat and rabbit
Inferior	Towards the lower part of the body Not used in animals
Infertility	The inability to conceive or cause conception
Inflammation	A localised protective response to tissue injury
Ingestion	The taking in of food, liquids etc.
Inguinal	To do with the groin
Inorganic	Compounds that lack carbon
Insertion	The attachment of a muscle tendon to a bone that moves
Inspiration	Breathing in
Insulin	A hormone produced by the pancreas. Decreases blood glucose levels
Intercostal muscles	The muscles between the ribs.
Internal	Away from the surface of the body
Interstitial fluid	Extracellular fluid surrounding the cells
Intervertebral disc	A pad of cartilage between the vertebrae
Intestinal juice	Digestive secretion produced by glands in the lining of the small intestine

Intracellular fluid	Fluid within the cells
Invertebrates	Animals that do not possess a backbone or vertebral column
Ion	A charged particle
Isotonic	Having an osmotic pressure equal to that of a solution with which it is compared
J	
Jejunum	The middle portion of the small intestine
K	
Keel	The breast bone in birds
Keratin	A protein found in epidermis, hair, feathers, hoofs etc
Kidney	The organ that produces urine
L	
Lachrymal gland	The tear gland of the eye
Lactation	The secretion and ejection of milk by mammary glands
Lacteal	A lymphatic vessel within the villi of the small intestine
Lacuna	A small hollow space
Lamellae	Concentric rings of hard calcified material found in compact bone
Large intestine	Part of the gut consisting of the colon, caecum, rectum and anal canal
Larynx	The voice box
Lateral	Away from the midline
Lens	Transparent part of the eye that helps focus light rays on the retina
Leukocyte	A white blood cell
Ligament	Dense connective tissue that attaches bone to bone
Lipase	Digestive enzyme that breaks down fats (lipids)
Lipid	Fat
Liver	The large organ caudal to the diaphragm
Longitudinal	Lengthwise slice of an animal or organ
Lordosis response	Standing firm to pressure on the loin region
Lumbar	Loin region of the back
Lumen	A space within an artery, vein, intestine or tube
Lung	The organs of respiration
Luteinising hormone	The hormone from the anterior pituitary gland that stimulates ovulation and development of corpus luteum
Lymph	Tissue fluid that has entered the lymphatic system
Lymph node	A structure that filters lymph and produces lymphocytes
Lymphatic capillary	The closed ended microscopic vessel that collects lymph in tissues
Lymphatic tissue	Specialised tissue that contains large numbers of lymphocytes
Lymphatic vessel	A large vessel that carries lymph
Lymphocyte	A white blood cell associated with the immune response
Lysosome	A cell organelle that contains digestive enzymes
M	
Macrophage	A large phagocytic cell present in many tissues
Mammary gland	The milk producing gland
Mandible	The bone of the lower jaw
Marrow	The soft sponge like material in the cavities of bone
Matrix	The substance of a tissue in which the more specialised structures are embedded
Maxilla	The bone of the upper jaw
Medial	Towards the midline
Mediastinum	The tissue that separates the two sides of the lungs
Medulla	Inner part of an organ
Medulla oblongata	The part of the brain stem or hind brain
Meiosis	The type of cell division for production of gametes Halves the number of chromosomes
Melanin	The dark pigment in the skin and hair
Melatonin	The hormone produced by the pineal gland
Membrane	A thin, flexible sheet of tissue
Meninges	The membranes covering the brain and spinal cord

Mesentery	The membrane attaching the small intestine to the abdominal wall
Metacarpals	The bones of the "hand"
Metastasis	The distant spread of disease especially a malignant tumour from its site of origin
Metatarsals	The five bones of the foot that connect the "ankle" to the toes
Microfilaments	A solid contracting strand in the cytoplasm of cells that brings about cell contraction.
Microtubule	A hollow rod of protein in the cytoplasm of all eukaryotic cells and in cilia, flagella, and the cytoskeleton
Microvilli	The microscopic fingerlike projections from the membrane of the cells covering the villi of the small intestine
Middle ear	The cavity in the skull between the eardrum and inner ear housing the auditory ossicles
Milk teeth	The first set of teeth in a young animal
Minute volume	The volume of air inspired or expired during a minute of normal tidal breathing
Mitochondrion	The organelle in cell cytoplasm that produces energy
Mitosis	The cell division for growth and repair Produces 2 cells identical to parent and each other
Molars	The more posterior cheek teeth
Monocyte	The largest leukocyte It is phagocytic and has no granules in the cytoplasm.
Monosaccharide	The simplest carbohydrate Also known as simple sugar
Morula	The solid mass of cells produced by successive divisions of the fertilized ovum
Mucus	A thick fluid secretion
Myelin	The fatty insulating coating to an axon of a neuron

## N

Nasal cavity	The space just inside the nostril
Negative feedback	Control in which the stimulus initiates actions that reverse or reduce the stimulus
Nephron	The functional unit of the kidney
Nerve	A bundle of nerve fibres
Nerve impulse	The nerve "current" that passes along a neuron
Neuron	A nerve cell
Neurotransmitter	Molecules released at a synapse to transmit the nerve impulse from one neuron to the next
Neutral fat	Biological compound consisting of three fatty acids linked to one glycerol molecule A fat or triglyceride
Neutrophil	White blood cell with granules in the cytoplasm involved in phagocytosis
Nictitating membrane	The third eyelid in the cat, tuatara and crocodiles
Normal saline	A 0.9% solution of sodium chloride
Nuclear membrane	The double layered membrane that surrounds the nucleus
Nucleolus	The spherical body within the nucleus, containing RNA
Nucleus	The spherical or oval body in the cell that contains the DNA
Nutrient	A chemical substance in food that provides energy or assists various body processes

## O

Oedema	Excessive accumulation of fluid in the body tissues
Oesophagus	The hollow muscular tube connecting the pharynx with stomach
Oestrogen	The female sex hormone produced by ovaries
Olfactory	To do with smell
Omasum	Part of the modified stomach of ruminants with a folded inner surface
Open rooted teeth	Teeth in which the root opening remains wide They grow continuously e.g. the incisors of rabbits and rats
Optic Nerve	The nerve carrying impulses from the retina of the eye to the brain
Orbit	The bony cavity in the skull that holds the eyeball
Organ	A structure with a specific function
Organelle	A structure in the cell with a specific function
Organic	A compound that contains carbon and hydrogen e.g. carbohydrates, lipids and proteins
Organism	A living form. One individual



Origin	The attachment of a muscle to a bone that does not move
Osmosis	The movement of water molecules across a semi permeable membrane from an area of high water concentration to an area of low water concentration
Osmotic pressure	The pressure required to prevent water moving across a semi permeable membrane by osmosis
Ossicle	A small bone
Ossification	The formation of bone
Otolith	A particle of calcium carbonate embedded in the membrane of the otolith organ of the inner ear
Oval window	The small opening between the middle and inner ear
Ovarian cycle	The series of events in the ovary associated with the maturation of the ovum
Ovarian follicle	The developing ovum with the epithelial tissues surrounding it
Ovary	The female gonad that produces ova
Ovulation	The release of the ovum from the mature follicle of the ovary
Ovum	The egg cell (plural: ova)
Oxyhaemoglobin	Haemoglobin combined with oxygen
Oxytocin	The hormone from the posterior pituitary gland. Stimulates milk "let down"

## P

Palate	The roof of the mouth
Palmar	The "walking" surface of the front paw
Pancreas	The organ lying along the caudal margin of the stomach. Has endocrine and exocrine functions
Pancreatic juice	The digestive secretion produced by the pancreas
Parasympathetic division	One of the two parts of the autonomic nervous system Concerned with normal "at rest" activities
Parathyroid gland	One of four small endocrine glands on the dorsal surface of the thyroid gland
Parathyroid hormone	The hormone secreted from the parathyroid gland.
Parotid gland	One of the paired salivary glands ventral to the ear
Parturition	The act of giving birth
Patella	The kneecap
Pathogen	A disease-producing organism
Pectoral	To do with the chest or breast
Pelvic cavity	The caudal portion of the abdominal cavity. Contains the bladder, colon and re-productive structures
Pelvic girdle	The bony structure formed by the hip bones, sacrum and Coccygeal bones
Pelvis	The bony structure formed by the two hip bones, sacrum and coccyx
Pepsin	The structure formed by the two hip bones, sacrum and coccyx
Pericardial cavity	A protein digesting enzyme secreted by the stomach wall
Pericardium	The small cavity between the two layers of the pericardial membranes
Periosteum	The membrane that encloses the heart
Peripheral	The tough connective tissue covering of a bone
Peripheral nervous system	Located on the outer part of the body The part of the nervous system composed of the cranial and spinal nerves
Peristalsis	The successive muscular contractions along the wall of the gut
Peritoneum	The membrane that lines the abdominal cavity and covers the abdominal organs
Permanent teeth	The second set of teeth that persist through life
Peyer's Patches	Large clusters of lymph nodules found in the wall of the small intestine
pH	A symbol that indicates the acidity or alkalinity of a solution.
Phagocytosis	The process by which cells ingest particles and bacteria
Phalanges	The bones of the "fingers" and "toes"
Pharynx	The throat
Phospholipid bilayer	The arrangement of phospholipids molecules in two layers
Phospholipids	Molecules that make up the double layer of biological membranes
Photoreceptor	A receptor that detects light
Photosynthesis	The making of organic molecules by plants using energy from the sun
Physiology	The science that deals with the functions of an organism and its parts
Pineal gland	The gland situated in the brain that secretes melatonin
Pinna	The projecting part of the external ear
Pinocytosis	The process by which cells ingest liquid
Pituitary gland	The endocrine gland lying under the caudal surface of the brain attached to the hypothalamus by a stalk
Pivot joint	A synovial joint where a peg of bone articulates with a ring of bone as in the joint between the atlas and axis

Placenta	The special structure through which the exchange of materials between the foetus and mother occurs
Plantar	The “walking” surface of the hind paw
Plantigrade locomotion	Locomotion involving placing the whole surface of the foot on the ground as in humans and bears
Plasma	The fluid that surrounds the blood cells
Plasma membrane	The outer membrane surrounding the cell
Platelets	Cell fragments in the blood essential for clotting
Pleura	Membranes that cover the lungs and line the walls of the chest and diaphragm
Pleural cavity	The space between the two layers of the pleura
Plexus	A network of nerves
Poikilothermic	‘Cold-blooded’ animals whose body temperature varies, to a large extent depending on the environment
Polysaccharides	A carbohydrate formed from up to a thousand monosaccharides
Preen	To clean, straighten and fluff feathers
Premolars	The more anterior cheek teeth
Progesterone	The hormone produced by the corpus luteum
Prolactin	The hormone produced by the anterior pituitary gland
Prostate gland	The gland caudal to bladder in males
Proteases	Enzymes that split proteins into amino acids
Protein	An organic compound consisting of carbon, hydrogen, oxygen and nitrogen Made up of amino acids
Proximal	Nearer to the body or to the point of origin
Pulmonary	To do with the lungs
Pulp cavity	The cavity within the crown and neck of a tooth
Pulse	The series of waves of high pressure blood passing along an artery
Pupil	The hole in the centre of the iris of the eye
Pus	Dead white blood cells
Pyloric sphincter	The ring of smooth muscle between the stomach and the small intestine

## R

Radius	The shorter bone of the forelimb between the humerus and the “wrist”
Receptor	A specialized cell that responds to specific sensory stimuli such as touch, pressure, light etc.
Red marrow	Bone marrow found in the spaces of spongy bone Makes red blood cells.
Reflex	A fast automatic response to a stimulus
Reflex arc	The most basic conduction pathway in the nervous system Consists of receptor, sensory, relay and motor neurons and effector
Refraction	Bending of light as it passes from one medium to another
Relaxin	The hormone secreted by the placenta and ovaries that eases the joint between the right and left pelvis and dilates the cervix for birth
Renal	To do with the kidney
Renal pelvis	The cavity in the centre of the kidney
Renal pyramid	A cone shaped structure in kidney medulla
Renal system	The body system involving the kidneys
Reticulum	The part of the modified stomach of ruminants with honeycomb of raised folds on its inner surface
Retina	The inner coat of the eyeball. Nerve cells here (rods and cones) respond to light rays
Ribosome	The organelle in the cell that makes proteins
Rickets	A bone disorder caused by inadequate vitamin D
Rod	The photoreceptor in the retina, specialized for vision in dim light
Rostral	Towards the muzzle
Rumen	The first and largest compartment of the modified stomach of ruminants It houses the microorganisms
Ruminants	An animal with a rumen e.g. sheep, cows, camels
Rumination	Chewing the “cud”

## S

Sacrum	The triangular bone formed from fused sacral vertebrae Located between the two hipbones
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Sagittal plane	Plane that divides the body into left and right portions
Sagittal section	Lengthwise slice of an animal or organ
Saliva	The secretion from the salivary glands
Salivary amylase	The starch digesting enzyme in saliva
Saturated fat	A fat containing saturated fatty acids
Scapula	The shoulder blade
Sciatic nerve	The large nerve that passes down the hind leg
Sclera	The fibrous outer coat of eyeball
Seasonal breeding	Breeding confined to certain seasons of the year
Sebaceous gland	An exocrine gland in the dermis of the skin associated with a hair follicle
Sebum	The secretion from a sebaceous gland
(Secondary sex characteristic)	A characteristic that develops at sexual maturity e.g. large body size of males, manes in lions
Secretion	The production or release of a fluid from a gland
Semen	The fluid discharged at ejaculation of male. Consists of sperm and fluid
Semicircular canals	The membranous fluid filled canals containing receptors for equilibrium
Semilunar valve	The valve guarding the entrance to the aorta or the pulmonary artery
Seminal vesicle	A gland that secretes a component of semen
Seminiferous tubule	The tightly coiled duct in the testis where sperm are produced
(Semi-permeable membrane)	A membrane that allows some substances to cross more easily than others
Sensory neuron	A neuron that carries a nerve impulse towards the central nervous system
Serum	Plasma minus its clotting proteins
Sesamoid bones	Small bones usually found in tendons
Shock	Reduced cardiac output resulting in failure to deliver adequate oxygen and nutrients to the body
Shoulder	The synovial joint where the humerus joins the scapula
Sinus	An air cavity in a bone especially in the bones of the face or skull
Skeletal muscle	Tissue specialized for contraction with striated fibres. Attached to the bones of the skeleton
Skull	The skeleton of the head
Small intestine	The long tube of the gut that begins at the stomach and ends at the large intestine
Smooth muscle	Tissue specialized for contraction with spindle shaped non striated fibres
Soft palate	The posterior portion of the roof of the mouth
Solution	One or more substances dissolved in a liquid
Sperm duct	The tube that carries sperm from the epididymis to the urethra Also called the vas deferens
Spermatic cord	The structure in the male reproductive system attached to the testis that carries the vas deferens, arteries, veins, etc.
Spermatozoon	A mature sperm cell
Sphincter	A ring-like muscle that controls movement along a body passage or orifice
Spinal cord	The mass of nerve tissue in the vertebral column
Spinal nerve	One of the nerves that originate in the spinal cord
Spleen	The large lymphatic organ near the stomach that stores blood and produces lymphocytes
Spongy bone	The inner layer of bone; found at the ends of long bones less dense than compact bone.
Squamous	Scale like
Starch	The storage polysaccharide in plants consisting entirely of glucose
Sterile	Free from any living micro organisms
Sternum	The breastbone
Stifle	The joint between the femur and the tibia on the hind leg
Stimulus	Any change in the environment capable of initiating a nerve impulse
Stomach	The large baglike part of the gut between the oesophagus and the small intestine
Striated muscle	Striped or skeletal muscle
Subcutaneous	Beneath the skin
Submandibular gland	The salivary gland beneath the tongue
Substrate	A substance on which an enzyme acts
Sulcus	A groove or depression between the convolutions of the brain
Superficial	Nearer to the surface of
Suture	An immovable joint in the skull
Sympathetic division	One of the two subdivisions of the autonomic nervous system concerned with reacting to emergency situations

Synapse	The junction between two neurons
Synovial joint	A fully moveable joint
System	An association of organs that have a common function
Systemic circulation	The blood circulation from the left ventricle through the aorta to all the organs of the body and back to the heart
Systole	The phase of the heartbeat involving contraction of the ventricles
Systolic blood pressure	The blood pressure during passage of the pulse
Synapse	The junction between two neurons
Synovial joint	A fully moveable joint
System	An association of organs that have a common function

## T

Target cell	A cell whose activity is affected by a particular hormone
Tarsals	The bones of the “ankle”
Tendons	A tough cord of fibrous connective tissue that connects muscles to bones
Testis	The male gonad that produces sperm
Testosterone	The hormone produced by the cells between the seminiferous tubules of the testis
Thoracic cavity	The chest cavity that contains the heart and lungs
Thorax	The part of the body between the neck and the diaphragm
Thymus gland	The organ dorsal to the sternum that is essential to the immune response
Thyroid gland	The endocrine gland with lobes on either side of the trachea
Thyroxine	The hormone secreted by the thyroid gland
Tibia	The medial bone of the lower hind limb
Tidal breathing	Normal at rest breathing
Tidal volume	The volume of air breathed in or out in any one “at rest” breath
Tissue	A group of similar cells
Tissue fluid	Plasma that has left the capillaries and flowed into the spaces between the cells of the tissues; also known as intercellular fluid or interstitial fluid
Total lung capacity	The sum of the tidal volume, inspiratory reserve, expiratory reserve and residual volume of the lungs
Trachea	The windpipe
Transverse	A crosswise slice of an animal or organ
Triceps	The muscle that extends from the shoulder to the elbow responsible for extending the forearm
Triglycerides	A biological compound consisting of three fatty acids linked to one glycerol molecule. A fat
Trunk	The part of the body to which the fore and hind limbs are attached
Tympanic membrane	The thin transparent membrane of connective tissue between the external ear, canal and the middle ear Also called the eardrum

## U

Ulna	The longer bone of the forelimb between the humerus and the “wrist”
Umbilical cord	The cord containing arteries and vein that attaches the foetus to the placenta
Unguligrade locomotion	Locomotion on the “fingernails” as in horses and pigs
Urea	The soluble excretory product produced when excess amino acids (from proteins) are broken down by the body
Ureter	One of two tubes that connect the kidney with the bladder
Urethra	The duct from the bladder to the exterior of the body
Uric acid	An insoluble excretory product produced when excess amino acids (from proteins) are broken down by the body
Urinalysis	The analysis of urine
Urine	The fluid produced by the kidneys
Uterus	The hollow muscular organ in females where the foetus develops

## V

Vagina	The muscular, tubular organ in the female where sperm are deposited during copulation
Vagus nerve	The cranial nerve that controls the muscles that bring about swallowing, the muscles of the heart, airways, lungs, stomach and intestines

Vane	The flat part of a feather emerging from the shaft; there are two vanes per feather
Vas deferens	The duct that conducts the sperm from the epididymis to the urethra
Vascular	To do with blood
Vasoconstriction	The decrease in size of the channel down a blood vessel
Vaso dilation	The increase in size of the channel down a blood vessel
Vein	A blood vessel that carries blood towards the heart
Velvet	The layer that covers antlers
Vena cava	One of two large blood vessels that return blood to the heart
Ventral	Nearer the belly of the animal than
Ventricles	The caudal chambers of the heart
Venule	A small vein
Vertebral canal	The channel that encloses and protects the spinal cord
Vertebrates	Animals that have a backbone or vertebral column
Vesicles	Small, intracellular membrane-bound sac
Vestibular organ	The organ of balance – semicircular canals and otolith organ
Villus (pl. villi)	A projection from the lining of the small intestine to help absorb digested food molecules
Viscera	The organs in the abdominal and pelvic cavities
Visceral skeleton	Bones formed in the organs of the body
Viscosity	The thickness or stickiness of a liquid
Vital capacity	The sum of the inspiratory and expiratory reserve volumes and the tidal volume
Vital capacity	The volume of the air expired when a maximum expiration follows a maximum inspiration
Vitamin	An organic molecule necessary in minute quantities for the proper functioning of the chemical processes in the body
Vitreous Humor	The fluid in the posterior chamber of the eye

## W

White matter Masses of myelinated axons located in the brain and spinal cord

## Y

Yellow marrow Bone marrow that is yellow with fat; found at the ends of long bones

## Z

Zona pellucida The tough layer surrounding the ovum  
 Zygote Single cell resulting from the union of the sperm and egg