Biology 1 Temperature Regulation

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1.	**active site**	the part of an enzyme to which the substrate binds
2.	**anabolic**	reactions that build complex molecules from simpler ones, requiring energy input
3.	**brown fat**	fat present in many hibernating mammals with the purpose of generating body heat
4.	**catabolic**	breaking down complex molecules into simpler ones, releasing energy
5.	**catalysts**	substances that speed up reversible chemical reactions
6.	**central nervous system**	parts of the nervous system that include the brain and spinal cord
7.	**chemoreceptors**	sensory cells in an organism that detect chemical stimuli
8.	**cofactor**	any non-protein molecule needed by an enzyme for its activity
9.	**control centre**	process controller that detects incoming information and relays outgoing information to regulate functioning
10.	**denature**	the change of shape of a protein, due to heat or changed pH, causing it to lose its ability to function
11.	**ectothermic**	an animal that depends on an external source for heat energy
12.	**effector**	the organ, gland or muscle that carries out a response when activated by nerve endings as a result of a stimulus
13.	**endothermic**	an animal whose heat is generated through its own metabolic activities
14.	**enzymes**	biological protein catalysts produced by cells, responsible for all chemical reactions in living organisms
15.	**heat-gain centre**	part of the hypothalamus in the brain that triggers responses in the body to generate heat
16.	**heat-loss centre**	part of the hypothalamus in the brain that triggers responses in the body to cool down
17.	**homeostasis**	processes which maintain a stable internal environment in an organism, despite fluctuations in the external environment
18.	**hypothalamus**	part of the brain involved in homeostatic mechanisms such as temperature regulation and water balance in mammals
19.	**induced-fit model**	the view of enzyme functioning based on the idea that an enzyme is not rigid, but alters shape slightly when it binds with a substrate
20.	**interoreceptors**	specialised sensory nerve receptors that receive and respond to stimuli originating from within the body
21.	**lock-and-key model**	the view of enzyme functioning based on the idea that an enzyme is rigid and reciprocally shaped to fit a substrate like a key fits a lock
22.	**metabolism**	the sum of the chemical processes occurring within a living cell or organism
23.	**negative feedback**	a self-regulatory biological system where a response counteracts the stimulus, reducing its effect so that a balance is maintained
24.	**nerves**	bundles of sensory or motor fibres of neurons which act as messengers, transmitting impulses
25.	**receptors**	specialised cells or groups of nerve endings that detect sensory stimuli
26.	**response**	any behaviour of a living organism that results from a stimulus
27.	**saturation point**	the maximum level at which all available enzymes are being used to catalyse a chemical reaction
28.	**sense organs**	a group of sensory receptors and associated non-sensory tissue specialised for detecting stimuli in the environment
29.	**set point**	any one of a number of quantities (such as temperature and pH) which the body tries to keep steady at a particular value during homeostasis
30.	**stimuli**	changes in the environment detected by the sensory organs
31.	**substrate**	a molecule upon which an enzyme acts
32.	**substrate-specific**	an enzyme that can work on only one particular substrate molecule, because the active site is reciprocally shaped to bind with that molecule
33.	**thermoreceptors**	sensory cells or organs that detect heat or cold