

<b>Subject</b>	<b>Science</b>
<b>Unit/Topic</b>	Year 11 Homeostasis And Response

Key Vocabulary	Definition
<b>Homeostasis</b>	The regulation of internal conditions to maintain optimum conditions in response to changes.
<b>Urea</b>	Chemical formed from the breakdown of too much protein. It is excreted in the urine.
<b>Urine</b>	Liquid produced by the kidneys (and stored in the bladder). Contains mostly water and some urea and ions.
<b>Kidney</b>	Organ that maintains water concentration in the body. It also regulates ions and excretes urea.
<b>Lung</b>	Organ of gas exchange that excretes carbon dioxide.
<b>Stimulus</b>	A change in the environment.
<b>Receptors</b>	Cells that detect changes in the environment e.g. rod and cone cells in the eye.
<b>Receptor organs</b>	Receptor organs are organs that contain receptor cells; eyes, ears, skin (touch, temperature and pain), nose, tongue.
<b>Central nervous system (CNS)</b>	The brain and the spinal cord.
<b>Coordination centres</b>	Receive and process information from receptors. E.g. brain.
<b>Effectors</b>	Muscles or glands which bring about a response .
<b>Neuron</b>	A nerve.
<b>Sensory neurone</b>	A nerve that takes messages from a receptor to the CNS.
<b>Relay neurone</b>	A nerve that connects a sensory neurone and a motor neurone.

<b>Motor neurone</b>	A nerve that takes messages from the CNS to an effector (muscle or gland).
<b>Reflex action</b>	An automatic and rapid action.
<b>Synapse</b>	The connection between two nerve cells.
<b>Neurotransmitter</b>	A chemical released into the synapse that allows a message to be passed on.
<b>Negative feedback</b>	How the body controls internal conditions. Any move away from a set point is detected and returned back.
<b>Endocrine system</b>	Consists of glands that release hormones into the blood to get to a target organ to cause a response.
<b>Hormone</b>	A chemical messenger, released by an endocrine gland carried around the body in the blood that affects a target organ.
<b>Pituitary gland</b>	Gland in the brain that produces several hormones (e.g FSH, LH and ADH).
<b>Thyroxine</b>	Hormone produced by the thyroid gland that regulates metabolism.
<b>Adrenaline</b>	Hormone.
<b>Pancreas</b>	Gland in the digestive system that produces insulin and glucagon as well as digestive enzymes.
<b>Insulin</b>	Released from the pancreas in response to high blood glucose levels and causes glucose to move from the blood into the cells. It causes glucose to be converted into glycogen for storage in the liver.
<b>Glucagon</b>	Released from the pancreas in response to low blood glucose levels and causes glycogen to be broken down into glucose and released back into the blood.
<b>Type 1 diabetes</b>	When the pancreas does not produce enough insulin.
<b>Type 2 diabetes</b>	When the body cells no longer respond to insulin.
<b>Oestrogen</b>	Released by the ovaries. Stops FSH being released and stimulates LH to be released. Causes the uterus lining to thicken in preparation for a fertilised egg.
<b>Follicle stimulating hormone (FSH)</b>	Hormone released by the pituitary gland. Causes maturation of the egg in the ovary.

<b>Lutenising hormone (LH)</b>	Hormone released by the pituitary gland. Causes the egg to be released from the ovary.
<b>Progesterone (HT)</b>	Hormone released by the egg follicle after ovulation. Maintains the lining of the uterus.
<b>In vitro fertilisation (IVF)</b>	Where egg cells are fertilised outside of the body with sperm cells.
<b>Testosterone</b>	The male hormone, produced by the testes, stimulates sperm production and secondary male sexual characteristics.
<b>Thyroid gland</b>	Endocrine gland in the neck that makes thyroxine.
<b>Thyroxine</b>	Hormone that controls metabolic rate (how quickly reactions in your cells takes place).
<b>Adrenal gland</b>	Endocrine gland on the kidneys that makes adrenaline.
<b>Adrenaline</b>	Hormone that prepares your body for 'fight or flight'.