Homeostasis and response

Answers

GCSE science knowledge recall

This topic online

Q	Answer	Remember
1	homeostasis	Homeo = same, stasis = staying still: the body keeps its insides steady.
2	receptors	Receptors detect, coordination centres decide, effectors do.
3	effectors	Muscles respond by contracting; glands respond by releasing hormones.
4	brain and spinal cord	Everything else - the nerves running to your fingers and toes - is outside the CNS.
5	sensory neurone	Sensory in, motor out - motor neurones carry impulses to effectors.
6	relay neurone	Relay = passes it on, like the middle runner in a relay race.
7	synapse	The electrical impulse cannot jump the gap, so a chemical carries the signal across.
8	They are automatic and very fast, so they protect the body from harm without waiting for the conscious brain to decide.	Pulling your hand off a hot pan happens before you even feel the pain.
9	cerebral cortex	It is the wrinkly outer layer - the folds give it a huge surface area.
10	cerebellum	Cerebellum sounds like 'balance' if you squint - it sits at the back, low down.
11	retina	It contains receptor cells that respond to light intensity and colour.
12	myopia	In myopia light focuses in front of the retina; a concave lens corrects it.
13	hypothalamus	Hypothalamus - think 'hypo-thermia': it guards your temperature.
14	pituitary	It is pea-sized but sends out hormones such as FSH, LH, TSH and ADH.
15	blood	That is why hormones act more slowly than nerve impulses, but their effects last longer.
16	pancreas	The pancreas is both a gland and the controller of blood sugar.
17	glycogen	Glycogen is the animal store; starch is the plant store.
18	glucagon	Glucagon makes the liver turn glycogen back into glucose - 'glucose is gone'.
19	type 1	Type 1 is treated with insulin injections.
20	type 2	Type 2 is first treated with a carbohydrate-controlled diet and more exercise.

Free for classroom and home use: print, photocopy and share. Not for resale or re-hosting.

Q	Answer	Remember
21	urea	Ammonia is made first, but it is toxic, so the liver turns it into urea.
22	ADH	More ADH means less, more concentrated urine - you release more when you are dehydrated.
23	oestrogen	Oestrogen builds up the uterus lining; testosterone is the main male hormone.
24	FSH	The egg develops inside a follicle - FSH stimulates the follicle.
25	LH	Ovulation happens around day 14 of a 28-day cycle, just after the LH surge.
26	condom	Barrier methods stop sperm reaching the egg; condoms also reduce the spread of STIs.
27	adrenaline	It boosts the supply of oxygen and glucose to the brain and muscles - 'fight or flight'.
28	The high thyroxine level is detected, so the pituitary releases less TSH, and the thyroid then makes less thyroxine.	Negative feedback always works against the change - too high triggers a fall.
29	auxin	Auxin collects on the shaded side, so that side grows faster and the shoot bends.
30	ethene	Fruit is picked unripe, shipped, then ripened with ethene just before sale.

Free for classroom and home use: print, photocopy and share. Not for resale or re-hosting.