	Homeostasis			
1	Homeostasis	the regulation of the internal conditions of a cell or organism to maintain optimum conditions to function		
2	Optimum	best		
3	Examples of Homeostatic systems	water	blood sugar	temperature (37°C)

	Nervous System	
4	Sequence of a nervous system response	stimulus → receptor → sensory Neurone → co-ordinator → motor neurone → effector → response
5	Reflex arc	nervous pathway for a reflex action which uses a relay neurone in the spinal cord to bypass the brain
6	Stimulus	a change in the environment which causes a response
7	Receptor	sense organ: eg skin, eyes, ears, nose, tongue
8	Impulse	the electrical signal carried in a neurone
9	Neurone	a nerve cell
10	Synapse	the gap between 2 neurones where chemical messengers (neurotransmitters) can pass across
11	Effector	a gland or muscle
12	Central Nervous System	the brain and spinal cord

13	**Required Practical: Ruler Drop (Reaction Time)**	
A	Independent Variable:	a named factor such as caffeine intake, gender, age
B	Dependent Variable:	how quickly (cm) you catch the ruler
C	Control Variables:	starting position of ruler, alignment (vertical) of the ruler
D	Method: Ruler drop (reaction times) i) person A holds out their hand with a gap between thumb and forefinger ii) person B holds the ruler with the zero at the top of person A's thumb iii) person B drops the ruler without warning and person A catches it as fast as they can iv) record in a suitable table, repeat 5 times, and calculate a mean. v) repeat the above, changing the identified independent variable.	

	IVF Process
42	i) FSH & LH given to stimulate eggs to mature ii) eggs and sperm collected. eggs fertilised in a lab iii) embryo inserted into mother's uterus

	Hormonal Control	
14	Hormones	chemical messengers carried in the blood
15	Target Organ	the place where hormones have an effect
16	Glands	secrete (produce) hormones
17	Pituitary Gland	the 'master gland' – controls other glands
18	Adrenal Glands	produce adrenaline
19	Adrenaline	hormone that increases heart & breathing rate
20	Pancreas	produces **insulin** & monitors blood glucose
21	Testes	produce testosterone (stimulates sperm production)
22	Thyroid Gland	produces thyroxine
23	Thyroxine	hormone that controls metabolic rate
24	Ovaries	produce **oestrogen**

	Control of blood glucose	
25	Insulin	hormone that tells glucose to move into cells
26	Glucagon	hormone that causes glycogen in the liver to be converted back to glucose
27	Glycogen	a store of glucose
28	Negative Feedback	where a change in conditions in the body is detected and acted on by the body to return it to normal levels
29	Diabetes Type 1	the pancreas fails to produce sufficient insulin
29a	Cause /treatment	often genetic / insulin injections
30	Diabetes Type 2	the body's cells no longer respond to insulin
30a	Risk Factors	obesity / sugary food

	Hormones in Reproduction	
34	FSH	causes an egg to mature
35	Oestrogen	stimulates repair of the uterus lining
36	LH	causes release of the egg (ovulation)
37	Progesterone	maintains the uterus lining
38	Menstrual Cycle	process in a female to prepare for pregnancy

	Contraceptive types	
39	Contraceptive Pill	inhibits FSH production
40	Implant / Injection / Skin patch	hormonal control methods
41	Condoms / IUD / Sterilisation	mon-hormonal methods