

SB7: **Animal Coordination, Control and Homeostasis (Paper 2)**

Lesson	Objectives Tracker Sheet	Date covered	I know this well	I need to do more work on this
SB7a Hormones	B7.1 Describe where hormones are produced and how they are transported from endocrine glands to their target o			
SB7b Hormonal control of metabolic rate	B7.2 H Explain that adrenalin is produced by the adrenal glands to prepare the body for fight or flight, including: increased heart rate increased blood pressure increased blood flow to the muscles raised blood sugar levels by stimulating the liver to change glycogen into glucose.			
	B7.3 H Explain how thyroxine controls metabolic rate as an example of negative feedback, including: low level of thyroxine stimulates production of TRH in hypothalamus, this causes release of TSH from the pituitary gland, TSH acts on the thyroid to produce thyroxine, when thyroxine levels are normal, thyroxine inhibits the release of TRH and the production of TSH.			
SB7c The menstrual cycle	B7.4 Describe the stages of the menstrual cycle, including the roles of the hormones oestrogen and progesterone, in the control of the menstrual cycle.			
	B7.6 Explain how hormonal contraception influences the menstrual cycle and prevents pregnancy.			
	B7.7 Evaluate hormonal and barrier methods of contraception.			
SB7d Hormones and the menstrual cycle	B7.5 H Explain the interactions of oestrogen, progesterone, FSH and LH in the control of the menstrual cycle, including the repair and maintenance of the uterus wall, ovulation and menstruation.			
	B7.8 H Explain the use of hormones in Assisted Reproductive Technology (ART) including IVF and clomifene therapy.			
SB7e Control of blood glucose	B7.9 Explain the importance of maintaining a constant internal environment in response to internal and external change.			
	B7.13 Explain how the hormone insulin controls blood glucose concentration.			

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	B7.14 H Explain how blood glucose concentration is regulated by glucagon.			
	B7.15 Explain the cause of type 1 diabetes and how it is controlled.			
SB7f Type 2 diabetes	B7.16 Explain the cause of type 2 diabetes and how it is controlled.			
	B7.17 Evaluate the correlation between body mass and type 2 diabetes including waist : hip calculations and BMI, using the BMI equation			
SB7g Thermoregulation	B7.10B Explain the importance of homeostasis, including: thermoregulation – the effect on enzyme activity.			
	B7.11B Explain how thermoregulation takes place, with reference to the function of the skin, including: the role of the dermis the role of the epidermis the role of the hypothalamus.			
	B7.12B Explain how thermoregulation takes place, with reference to: shivering vasoconstriction vasodilation.			
SB7h Osmoregulation	B7.10B Explain the importance of homeostasis, including: osmoregulation – the effect on animal cells.			
	B7.18B Describe the structure of the urinary system.			
	B7.21B Describe the treatments for kidney failure, including kidney dialysis and organ donation.			
	B7.22B State that urea is produced from the breakdown of excess amino acids in the liver.			
SB7i The kidneys	B7.19B Explain how the structure of the nephron is related to its function in filtering the blood and forming urine including: filtration in the glomerulus and Bowman's capsule selective reabsorption of glucose reabsorption of water.			
	B7.20B H Explain the effect of ADH on the permeability of the collecting duct in regulating the water content of the blood.			