

Topic	Student Checklist	R	A	G
4.5.1 Homeostasis	Describe what homeostasis is and why it is important stating specific examples from the human body			
	Describe the common features of all control systems			
4.5.2 The human nervous system	State the function of the nervous system and name its important components			
	Describe how information passes through the nervous system			
	Describe what happens in a reflex action and why reflex actions are important			
	Explain how features of the nervous system are adapted to their function, including a reflex arc (inc all types of neurone and the synapse)			
	Required practical 6: plan and carry out an investigation into the effect of a factor on human reaction time			
	<i>Describe how body temperature is monitored and controlled</i>			
4.5.3 Hormonal coordination in humans	Describe the endocrine system, including the location of the pituitary, pancreas, thyroid, adrenal gland, ovary and testis and the role of hormones			
	State that blood glucose concentration is monitored and controlled by the pancreas			
	Describe the body's response when blood glucose concentration is too high			
	Explain what type 1 and type 2 diabetes are and how they are treated			
	HT ONLY: Describe the body's response when blood glucose concentration is too low			
	HT ONLY: Explain how glucagon interacts with insulin to control blood glucose levels in the body			
	Describe how water, ions and urea are lost from the body			
	Describe the consequences of losing or gaining too much water for body cells			
	HT ONLY: Recall that protein digestion leads to excess amino acids inside the body and describe what happens to these			
	Describe how the kidneys produce urine			
	HT ONLY: Describe the effect of ADH on the permeability of the kidney tubules and explain how the water level in the body is controlled by ADH			
	Describe how kidney failure can be treated by organ transplant or dialysis and recall the basic principles of dialysis			
	Describe what happens at puberty in males and females, inc knowledge of reproductive hormones			
	Describe the roles of the hormones involved in the menstrual cycle (FSH, LH and oestrogen)			
	HT ONLY: Explain how the different hormones interact to control the menstrual cycle and ovulation			
	Describe how fertility can be controlled by hormonal and non-hormonal methods of contraception (giving specific examples from the spec)			
HT ONLY: Explain how hormones are used to treat infertility, inc the steps in IVF				

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	HT ONLY: Evaluate the risks and benefits of fertility treatments			
	HT ONLY: Describe the functions of adrenaline and thyroxine in the body, and recall where they are produced			
	HT ONLY: Explain the roles of thyroxine and adrenaline in the body as negative feedback systems			