



AQA GCSE Combined Science: Trilogy

Topic Checklists **4.5 Homeostasis and Response**

4.5.1 Homeostasis

Topic	Success Criteria	Progress		
Homeostasis	I can give a definition for the term 'homeostasis'.			
	I can explain why homeostasis is important for the body.			
	I can give some examples of conditions in the body that are automatically controlled by nervous or chemical responses.			
	I can describe the role of receptors, coordination centres and effectors in automatic control systems.			

4.5.2 The Human Nervous System

Topic	Success Criteria	Progress		
The Human Nervous System	I can describe the function of the nervous system in humans.			
	I can describe how information is passed through the nervous system.			
	I can explain how the structure of the nervous system is adapted to its functions.			
	I can explain how the structures in a reflex arc relate to their functions.			
	I can explain the importance of reflex actions.			
	I can describe a method to investigate the effect of a factor on human reaction time (required practical activity 6).			
	I can extract and interpret data about the functioning of the nervous system from graphs, charts and tables.			
	I can translate information about reaction times between numerical and graphical forms.			

**4.5.3 Hormonal Coordination in Humans**

Topic	Success Criteria	Progress		
Human Endocrine System	I can name and identify the main glands that make up the human endocrine system.			
	I can describe the function of the human endocrine system.			
	I can describe how hormones are transported to a target organ.			
	I can compare the effects of the endocrine system to the effects of the nervous system in terms of speed and length of action.			
	I can describe the function of the pituitary gland.			
Control of Blood Glucose Concentration	I can name the gland that monitors and controls blood glucose concentration.			
	I can explain the changes that take place in the body if the blood glucose concentration is too high.			
	(HT only) I can explain the changes that take place in the body if the blood glucose concentration is too low.			
	(HT only) I can explain how glucagon interacts with insulin in a negative feedback cycle to control blood glucose levels in the body.			
	I can compare the causes of Type 1 and Type 2 diabetes and explain how they can be treated.			
	I can extract information and interpret data from graphs that show the effect of insulin on blood glucose levels in both people with diabetes and people without diabetes.			



Topic	Success Criteria	Progress		
Hormones in Human Reproduction	I can describe the role of reproductive hormones in puberty.			
	I can name the main female reproductive hormone and state where it is produced.			
	I can describe the main stages in the menstrual cycle.			
	I can name the hormones involved in the menstrual cycle.			
	I can describe the role of each hormone in the menstrual cycle.			
	I can name the main male reproductive hormone and state where it is produced.			
	I can describe the role of the main male reproductive hormone in human reproduction.			
	(HT only) I can explain the interactions of FSH, oestrogen, LH and progesterone, in the control of the menstrual cycle.			
	(HT only) I can extract and interpret data from graphs showing hormone levels during the menstrual cycle.			
Contraception	I can give some examples of hormonal methods of contraception and explain how they work.			
	I can give some examples of non-hormonal methods of contraception and explain how they work.			
	I can evaluate the different hormonal and non-hormonal methods of contraception.			
The Use of Hormones to Treat Infertility (HT Only)	I can explain the use of hormones in modern reproductive technologies to treat infertility.			
	I can describe the main steps in the process of in vitro fertilisation (IVF).			
	I can explain how the development of microscopy techniques has enabled IVF treatments to develop.			
	I can describe some social and ethical issues associated with IVF treatments.			
	I can evaluate from the perspective of patients and doctors the methods of treating infertility.			



Topic	Success Criteria	Progress		
Negative Feedback (HT Only)	I can name the gland that produces adrenaline.			
	I can describe the role of adrenaline in the body.			
	I can name the gland that produces thyroxine.			
	I can describe the role of thyroxine in the body.			
	I can explain how thyroxine levels are controlled by negative feedback.			
	I can interpret and explain simple diagrams of negative feedback control.			