Ravens Wood School

KS3 Curriculum Plan

Subject: Year 7 Human Reproduction

Overarching Topic: Human reproduction			
Why is this topic being studied at this time? How does it fit into the wider subject curriculum?	• The birds, the bees, chimpanzees, humans – we all do it, but few people realise that sexual reproduction actually first evolved in creatures vastly different to ourselves. The dawn of sexual reproduction has always been a puzzle for scientists. Today on Earth 99% of multicellular creatures – the big organisms we can see – reproduce sexually. All have their unique mechanisms, but why this process evolved is actually a subject of great mystery. Even for Darwin, the father of evolution, sex was confusing. He wrote in 1862: "We do not even in the least know the final cause of sexuality; why new beings should be produced by the union of the two sexual elements. The whole subject is as yet hidden in darkness." What is the real story of the birds and the bees? • This unit is used to extend students earlier ideas about human reproduction and consider how offspring are protected and nurtured. They will relate what they know of the way their bodies change during adolescence to knowledge about human reproduction, growth and the menstrual cycle. This unit draws on ideas developed in the key stage 2 programme of study. It builds on unit 5B 'Life cycles' in the key stage 2 scheme of work and on unit Cells in year 7. PSHE, drugs education, sex education In scientific enquiry pupils: consider sample size in biological investigations, present data in bar charts and graphs, interpret data they have collected and data from secondary sources.		
	Critical	**Core**	**Pinnacle**
The Big Questions (What questions will students be able to answer upon mastery of the topic?)	What are three parts of the female reproductive system? What are three parts of the male reproductive system? Where are sperm and eggs produced? How are sperm and eggs adapted to their function? What is fertilisation?	How are substances passed from the mother to the foetus? What are the stages in development of a foetus from the production of sex cells to birth? What are causes of low fertility in male and female reproductive systems? What are key events of the menstrual cycle?	How could you improve a sperm cell's structure? How would your life be different if male and female reproductive organs were swapped over? Why does pregnancy take 9 months? What health advice would you give to a pregnant woman? If men could get pregnant, how would this affect your life? As a GP, evaluate the use of different methods of contraception.
The Key Skills/ Techniques	**The sophistication and application of skills will become more advanced as students' progress through the critical, core and pinnacle knowledge.**		
	Skill/Technique	**How will this skill be developed?**	
	1. Graphing & Drawing	Draw graphs with suitable scales, axes and units. Correct line of best fit. Appreciation of anomalies and processed data. Scientific drawing of cells, concepts and scientific equipment.	
	2. Variables	Identify independent, dependent and control variables and devise experiments to include these to ensure valid results. Appreciation of uncertainty.	
	3. Data Analysis	Describe, explain and predict trends. Graph and table data interpretation. Identify links and patters within and between topics. Statistical analysis of data to include mode/median/mean/range determination. Drawing justified conclusions from presented data.	
	4. Application	Apply known and taught theory in unfamiliar contexts. Making links to taught theory and extracting key ideas. Communicating using correct scientific terminology.	

	5. Working Scientifically	Identify hazards and planning to limit risk. Describe how to improve accuracy/precision/repeatability/reproducibility/validity. Evaluate reliability of methods and investigations, taking in to account data analysis.