

Biology		Lesson 3: DNA discovery		
Curriculum Key:	AQA Core 10.8	OCRA B1	OCRB B1g	Edexcel topic 2
Objective(s) 1. Understand that there are different types of scientists, some methodical and some inspirational. 2. Learn that scientific discovery is often a race and not always fair.		Resources needed: Audio cassette player Time line card sort Pegs/paperclips String.		
Starter: 10 minutes Teacher asks who has heard of DNA and who discovered it. Explains that DNA controls everything about us and that in the 1950s many scientists were trying to find out the structure of DNA so that they could explain how it works. Audio clip from BBC Book of the Week "Rosalind Franklin. The Dark Lady of DNA".		Teacher input/assessment After clip ask if Rosalind Franklin had been fairly treated.		
Main Activity 1: 25 minutes Card sort: Cards have details of incidents and dates leading up to discovery of structure of DNA. Students sort and turn into a time line. Students attach to "washing line". Alternative for higher ability students, card set without dates and with accompanying text. If time permits, ask students to consider the conditions which enabled Rosalind's work to be ignored, and whether this could happen now. What do scientists do to avoid plagiarism?.		Teacher input / assessment Teacher to circulate, questioning students about their choices.		
Plenary: 10 minutes Discussion about different ways scientists can work – methodical like RF or inspirational like Watson and Crick (who did no experimental work). Ask if students have heard of any famous women scientists. Students' vote whose work was most important in discovery of DNA, Franklin or Watson and Crick. A more structured plenary could focus on the outcomes to measure the learning that has taken place.		Teacher input / assessment Lead discussion. Emphasise how important it is that scientists share information.		
Learning Outcomes: All students must: Understand that the structure of DNA was discovered in 1953. Most students should: Understand that scientists may disagree with each other and scientific discoveries can be a race. Some students could: Understand that two different types of scientific investigation resulted in the elucidation of DNA structure Understand that not all scientific researchers are credited with their discoveries.				
Key Skills: Literacy, analysis of text, teamwork, communication, listening Key words: DNA, X ray crystallography, double helix Homework: Research another woman scientist.		Differentiation: More able: Understand the importance of open discussion and scientific research. Less able: Understand that different types of scientific research can result in discoveries.		