

**Recombinant DNA technology**

Specification reference	Checklist questions	
3.8.4.1	Can you explain how complementary DNA is made using reverse transcriptase?	<input type="checkbox"/>
3.8.4.1	Can you explain how restriction endonucleases are used to cut DNA into fragments?	<input type="checkbox"/>
3.8.4.1	Can you explain the importance of sticky ends?	<input type="checkbox"/>
3.8.4.1	Can you explain how a DNA fragment can be inserted into a vector?	<input type="checkbox"/>
3.8.4.1	Can you explain how the DNA of the vector is introduced into host cells?	<input type="checkbox"/>
3.8.4.1	Can you describe the nature of gene markers and explain how they work?	<input type="checkbox"/>
3.8.4.1	Can you describe the polymerase chain reaction?	<input type="checkbox"/>
3.8.4.1	Can you explain how the polymerase chain reaction is carried out?	<input type="checkbox"/>
3.8.4.1	Can you summarise the advantages of <i>in vitro</i> and <i>in vivo</i> cloning?	<input type="checkbox"/>
3.8.4.2	Can you describe what DNA probes are and explain how they work?	<input type="checkbox"/>
3.8.4.2	Can you explain how DNA hybridisation is used to locate specific alleles of genes?	<input type="checkbox"/>
3.8.4.2	Can you describe the use of labelled DNA probes to screen for heritable conditions or health risks?	<input type="checkbox"/>
3.8.4.2	Can you consider the use of genetic screening in genetic counselling?	<input type="checkbox"/>

Specification reference	Checklist questions	
3.8.4.3	Can you describe what genetic fingerprinting is?	<input type="checkbox"/>
3.8.4.3	Can you explain the technique of gel electrophoresis?	<input type="checkbox"/>
3.8.4.3	Can you explain how genetic fingerprinting is carried out?	<input type="checkbox"/>
3.8.4.3	Can you explain how the results of genetic fingerprinting are interpreted?	<input type="checkbox"/>
3.8.4.3	Can you consider the uses of genetic fingerprinting?	<input type="checkbox"/>