

IGCSE Biology (9-1) Specification 5(c)

(c) Genetic modification (genetic engineering)

Students should:

- 5.12** understand how restriction enzymes are used to cut DNA at specific sites and ligase enzymes are used to join pieces of DNA together
- 5.13** understand how plasmids and viruses can act as vectors, which take up pieces of DNA, and then insert this recombinant DNA into other cells
- 5.14** understand how large amounts of human insulin can be manufactured from genetically modified bacteria that are grown in a fermenter
- 5.15** understand how genetically modified plants can be used to improve food production
- 5.16** understand that the term transgenic means the transfer of genetic material from one species to a different species

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