

## Curriculum Links for: ABPI Genetic Engineering

### SCOTTISH BIOLOGY QUALIFICATIONS

Intermediate 1	C007 10	Unit 2 Biotechnological Industries <ul style="list-style-type: none"><li>• iii Modern production methods including genetic engineering and computer – control technology</li></ul>
Intermediate 2	C007 11	Unit 2 Environmental Biology and Genetics <ul style="list-style-type: none"><li>• xiii genetic engineering</li></ul>
Higher	C007 12	Unit 2 Genetics and Adaption <ul style="list-style-type: none"><li>• 2. Artificial selection</li></ul>
Advanced Higher	C007 13	Unit Cell and Molecular Biology <ul style="list-style-type: none"><li>• ii Human Therapeutics – detecting genetic disorders</li></ul>

### SCOTTISH BIOTECHNOLOGY QUALIFICATIONS

Intermediate 2	C008 11	Unit 3 Biotechnology Processes <ul style="list-style-type: none"><li>• b pharmaceuticals</li></ul>
Higher	C008 12	Unit 1 Microbiology <ul style="list-style-type: none"><li>• c Genetic engineering</li></ul> Unit 3 Biotechnology <ul style="list-style-type: none"><li>• b Biotechnology applications 2 Clinical and forensic medicine applications</li></ul>

**'Genetic Engineering'** has an animated diagram showing the basic steps in the genetic engineering of a bacterium and information on different ways of moving genes, silencing of genes, production of vaccines such as hepatitis B using genetically modified yeast and xenotransplantation. Activities encourage students to consider the ethical implications and potential importance of these developments.

These will help students;

- to understand the science behind gene transfer
- to think about the implications of our newly – acquired ability to move genes from one living thing to another
- to grapple with the issues involved in transferring tissues from animals to humans