

# What is GENETIC ENGINEERING???

These questions will guide you through your textbook to create a set of notes to help you gain a better understanding of biotechnology and genetic engineering. DO ALL WORK on your own paper...

- Look at the introduction page to *Genetics* on 126-127. Read each of the statements made about genetics.
- Now turn to section 9.2 on genetic engineering (p 209). Read this section and define the following terms:
  - Genetic engineering
  - DNA fingerprint
  - Restriction enzymes
  - Recombinant DNA
  - Vector
  - Plasmid
- Examine Figure 9.5 (p 210-211) on gel electrophoresis. Do the "Think About It!" Lab Zone on page 211 to analyze gel electrophoresis results.
- Copy Figure 9.6 on gene cloning (p 212). Include BOTH the diagrams and text in your copy.
- Go on to section 9.3 on the applications of genetic engineering (p 213). Read this section and define the following terms:
  - Transgenic organisms
  - Gene therapy
- Finish reading this section and answer the 9.3 checkpoint questions #1-3 (p 217).
- Finally, read section 9.4 on safety and ethics in biotechnology and do the 9.4 Checkpoint questions #1-3.