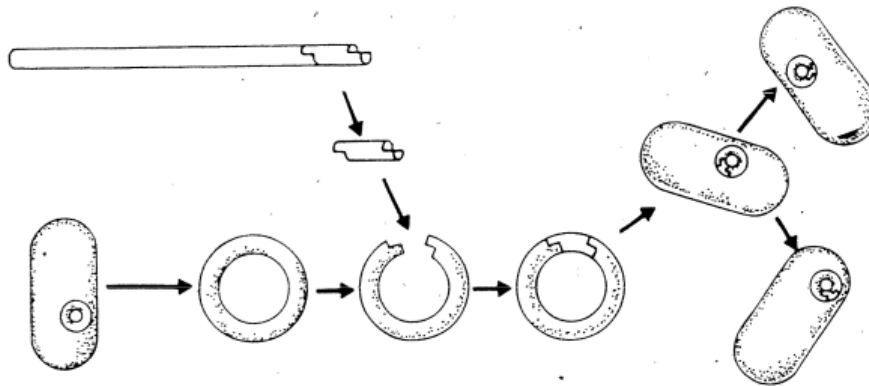


ACTIVITY ■ Applied Genetics

Making Recombinant DNA

The following diagram illustrates the special process scientists use to make recombinant DNA.



1. Listed below are the steps that must be followed to make recombinant DNA. On the line at the left, number the steps so that they are in the correct order.

- _____ The combined DNA is put back into the bacterial cell.
- _____ The bacterial cell and all its offspring will produce the human protein coded for by the piece of human DNA.
- _____ The plasmid forms a ring again.
- _____ A short piece of DNA from a human cell is "tied" to the plasmid.
- _____ A plasmid is removed from a bacterium.

2. Label the following structures on the diagram.

- a. DNA from human cell
- b. Reproduced bacterial cell
- c. Plasmid
- d. Recombinant DNA
- e. Bacterial cell