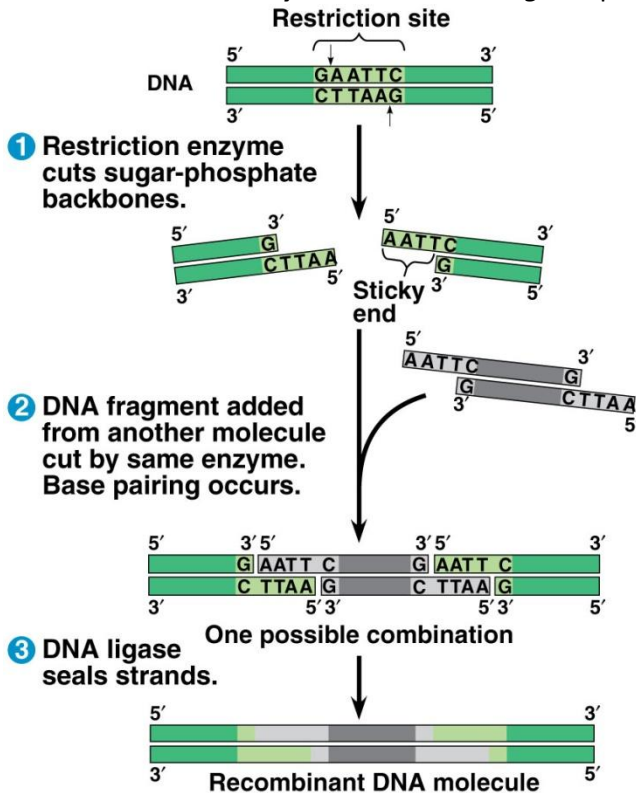


## Handout Ch20

How *restriction enzymes* cut DNA and *ligase* splices.



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## Cutting and splicing DNA for genetic engineering

Restriction Enzymes

Who

What

How

When

Where

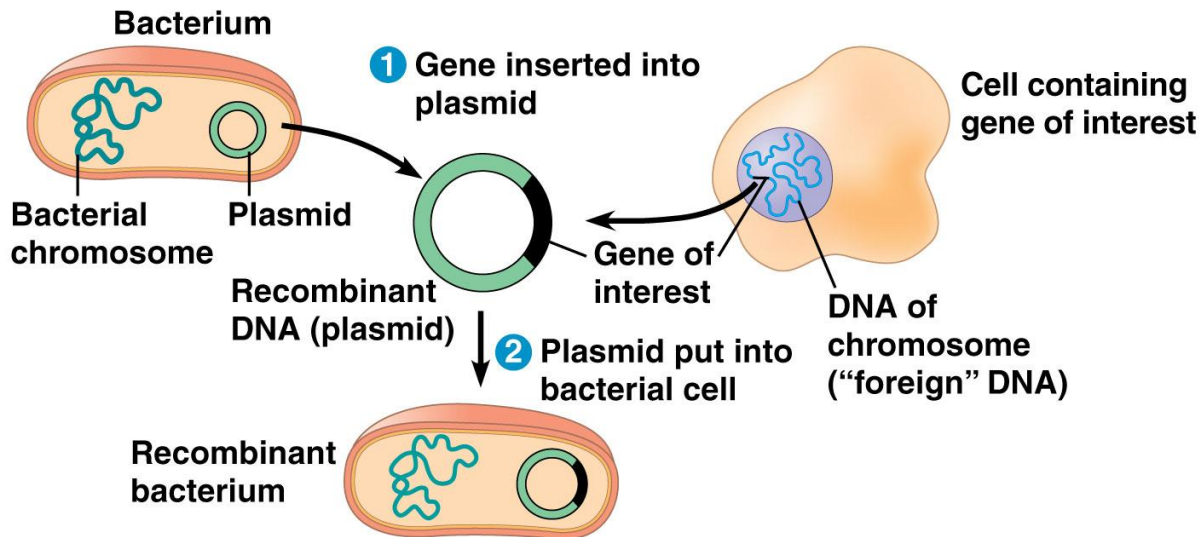
Why

“Dog-leg” cut and “sticky ends”

Role of *ligase*

*Recombinant DNA*

## Restriction Enzymes in Genetic Engineering (a.k.a. Biotechnology)

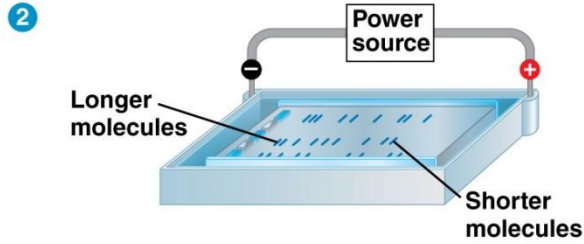
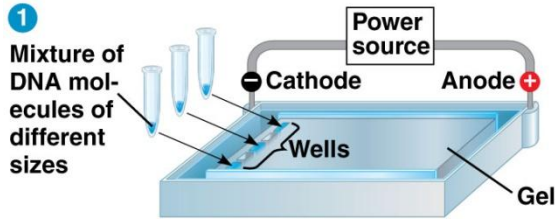


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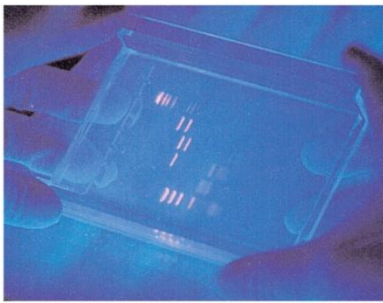
PCR (Polymerase Chain Reaction) for making numerous copies of DNA.

## Electrophoresis for creating DNA fingerprints (RFLPS)

### TECHNIQUE



### RESULTS



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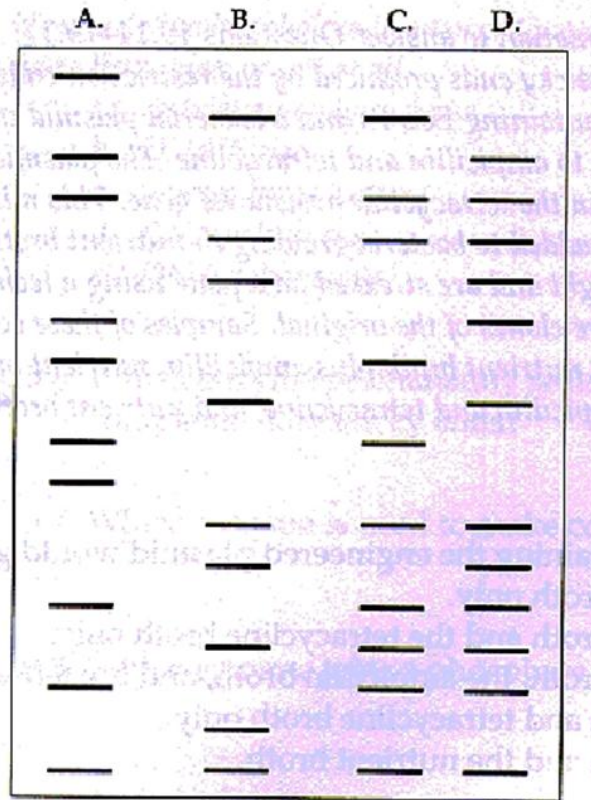
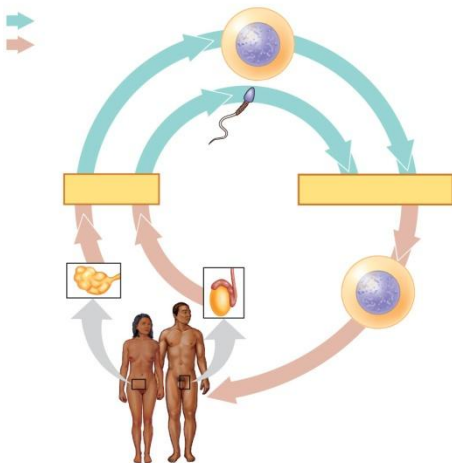


Figure 19.3

## Cloning for reproductive purposes



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## Cloning with stem cells for therapeutic purposes

