

# Quick Cloning review:

Turn in Cloning work from yesterday if you haven't already. 😊

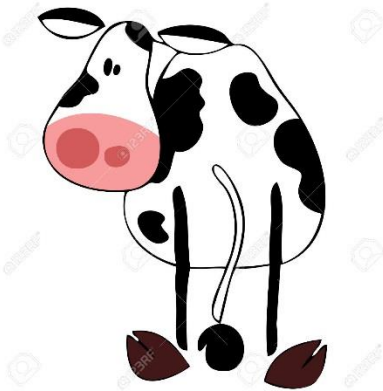
Pick up today's assignment.



6 year old dairy cow



Surrogate cow



Egg donor



Clone

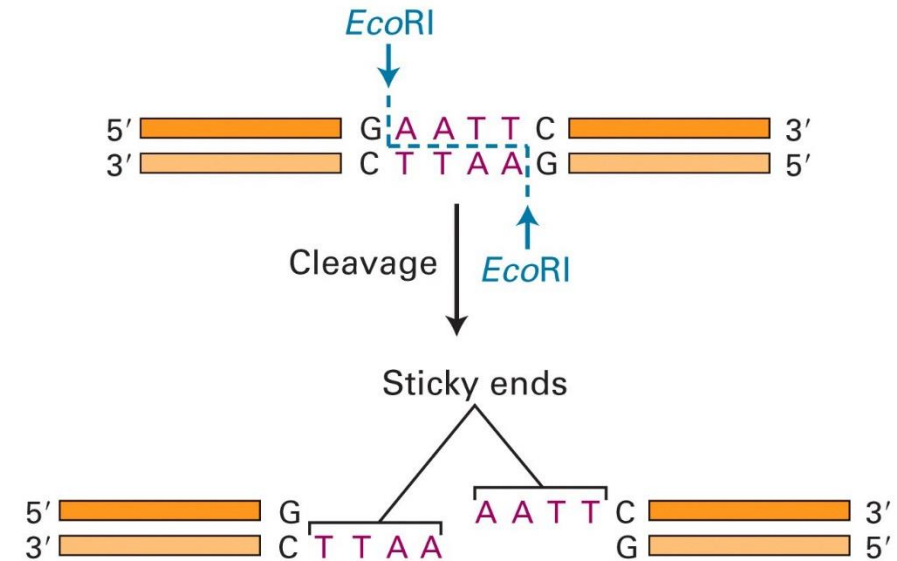
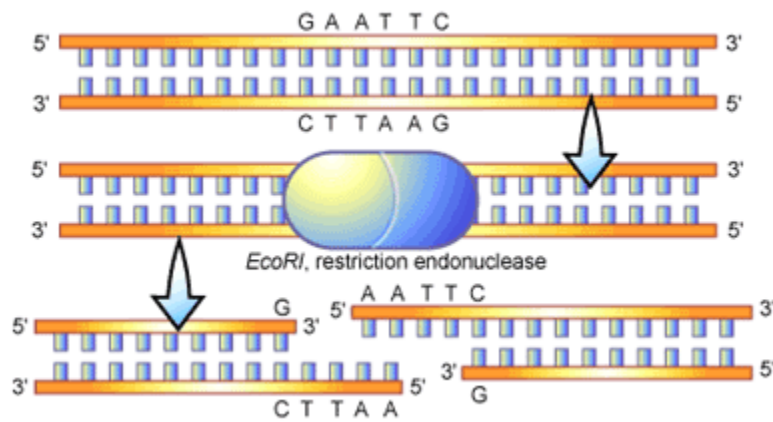
# GENE SPLICING

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Use with handout!

# Restriction Enzyme

- Restriction enzymes are enzymes that cut a DNA molecule at a particular place.

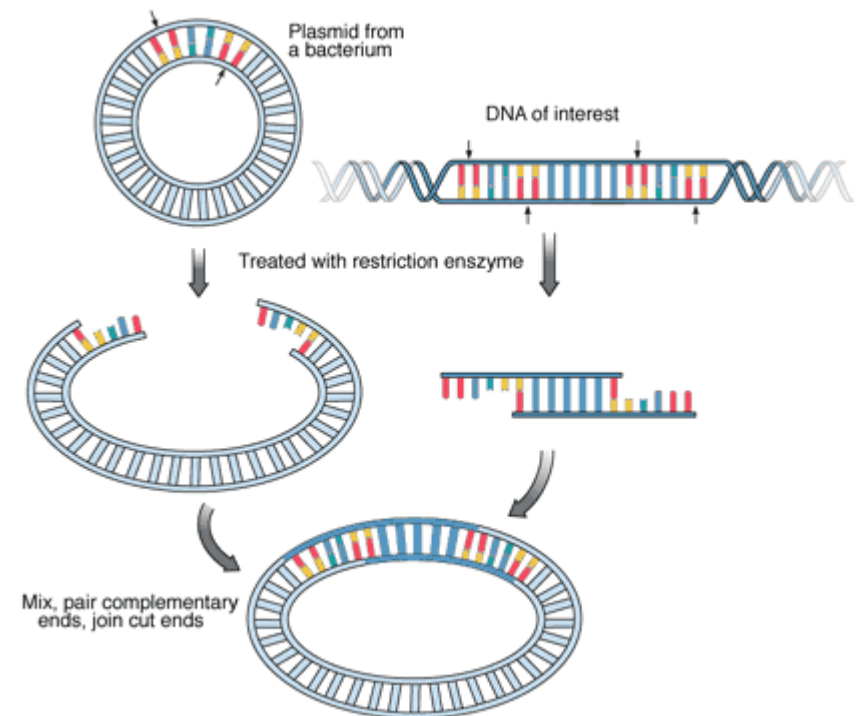
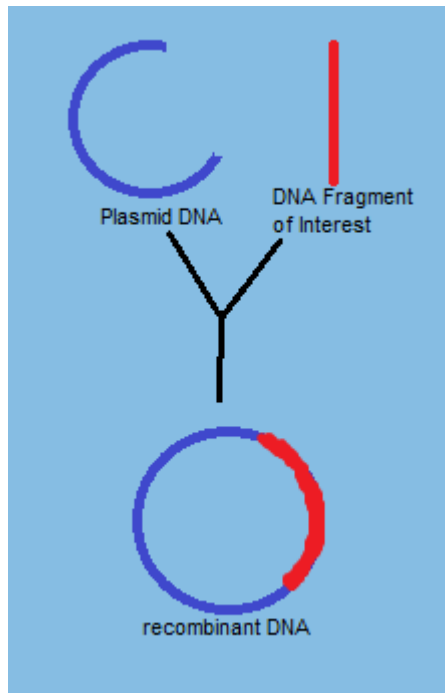


Use the scissors to cut at the sticky ends on your piece of DNA.

- What do the scissors represent?

# Recombinant DNA

- **Recombinant DNA** is DNA that has been created by combining the DNA of two different organisms.



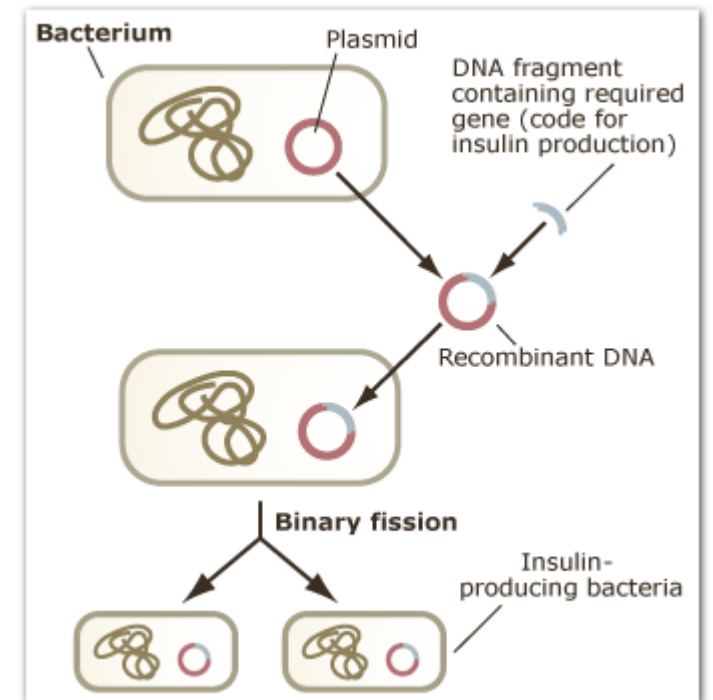
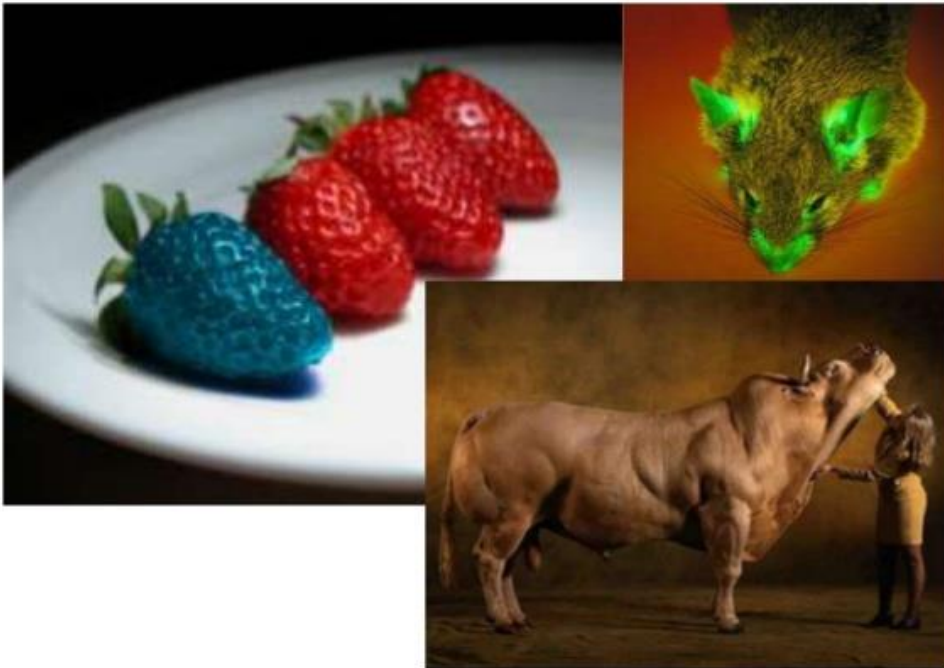
Working with a partner, place the human gene into the bacterial gene (plasmid).

- What is the new DNA structure called?
- Why might it be useful to combine DNA from different organisms?

# Transgenic Organism

- **Organisms** that have altered genomes are known as **transgenic**

## Examples of transgenic organisms

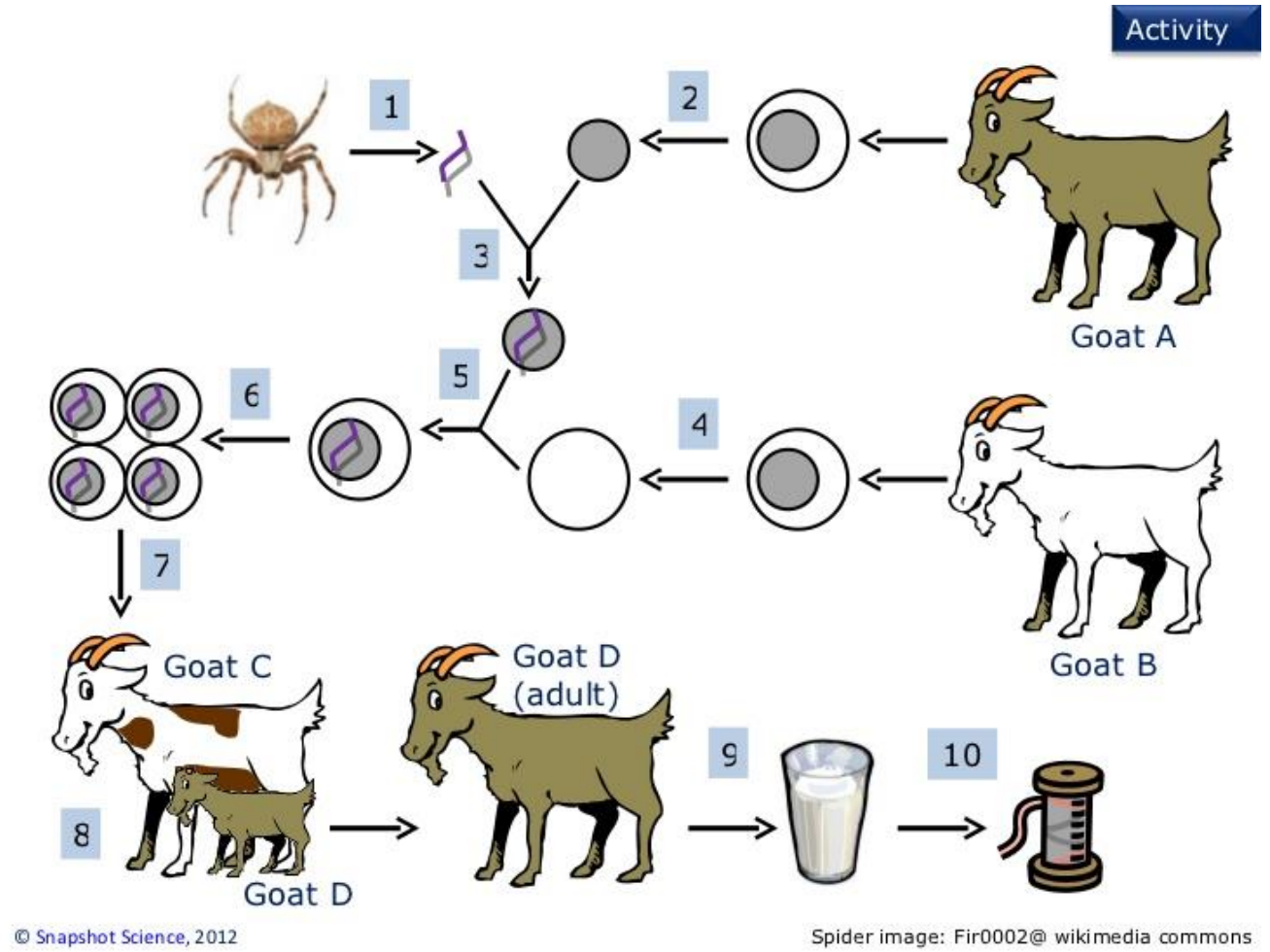




# Spider Goat!

The transferred genes **MUST** be placed in an embryo of the modified organism!

Webbing used to reinforce tendons and jaw after surgery



Complete parts d and e on your paper.

Flip it over and complete the back side.

Turn in your paper and work on your product – let Mrs. Napier know what your topic is. 😊