

Thursday Oct 20,2011

- 1) Finish discussion of Clones
- 2) Notes on Cloning Plants and Animals

Test Tues Oct 25th

Warm-Up

How old was Dolly when she was put down?

Celebrity Sheep Died at Age 6

Dolly, the first mammal to be cloned from adult DNA, was put down by lethal injection Feb. 14, 2003. Prior to her death, Dolly had been suffering from lung cancer and crippling arthritis. Although most Finn Dorset sheep live to be 11 to 12 years of age, postmortem examination of Dolly seemed to indicate that, other than her cancer and arthritis, she appeared to be quite normal. The unnamed sheep from which Dolly was cloned had died several years prior to her creation. Dolly was a mother to six lambs, bred the old-fashioned way.



After Watching the Video:

What benefits to humanity does human cloning offer?

Do these benefits outweigh the risks?

What risks are there with cloning?

Would you still create a clone of yourself?

Cloning Vocabulary

ethical: Relating to or involving questions of right and wrong
Context: The idea of cloning humans and other animals raises ethical and moral concern.

genes: The building blocks of DNA, which serve as transmitters of hereditary characteristics

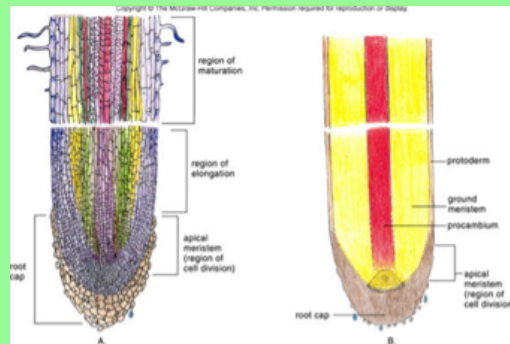
genetic engineering: The process of altering a living being's genes to create a desired effect

Context: Genetic engineering may produce a redder tomato, a taller giraffe, or a cow that gives more milk.

transgenics: The process of replacing the nucleus of one animal's cell with the nucleus of a different animal's cell

Cloning from a plant cell

The first cloned plant cell came from the root tip of a carrot. The cell was put into a dish with growth hormones. The cells were then put into another dish without hormones. The cells started to specialize into root, stem and leaf cells.

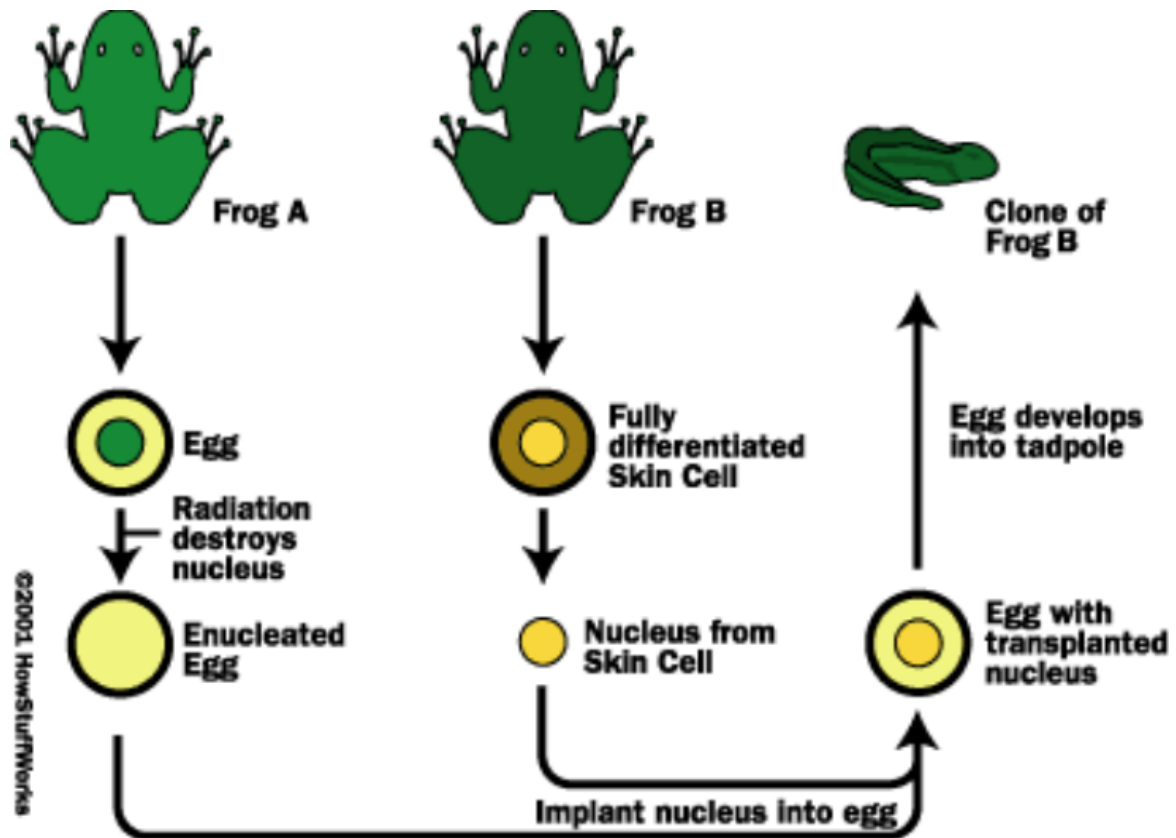


Cloning Animals

Scientists have cloned animals too. For example, one egg from a frog was taken. The nucleus was removed and replaced by the cell nucleus from another frog. The cells divided and a frog was born. The new frog was a clone of the frog that donated the

us.



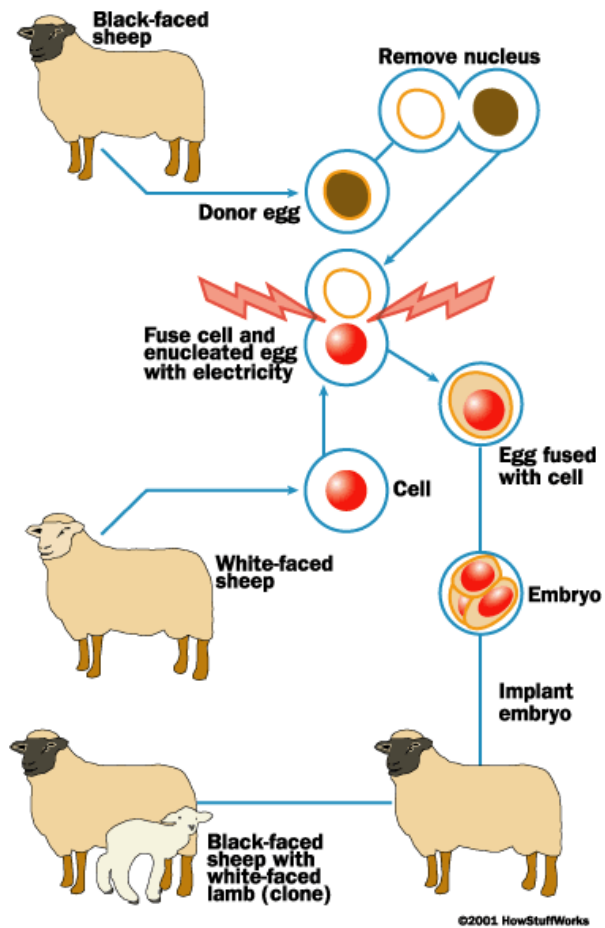


Mammal Cloning

Mammal clones have been created using the same kind of system as the frog.

Dolly was the first cloned sheep. What was different with Dolly is that adult cells were used instead of egg cells.





Cloning

Do understanding concept questions:

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