

Tuesday Oct 25

1) Cont Chapter 6 Review

Reminder of Test Tomorrow!!!

Chapter 6 Review
Understanding concepts
Pg 198-199

2, 3ab,5, 6, 8 , 10, 11, 12, 13, 14, 15,19,24



Define each of the following words: (We will review in our BINGO)

mutation

chromosome

benign

cancer

carcinogen

cloning

fragmentation

malignant

regeneration

stem cell

tumour

enucleated cell

DNA

genetic engineering

DNA replication

transgenics

DNA fingerprints

genes

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2. DNA replication is required for cells to divide. The genetic material, regulating cell activity, must be found in each new cell.

3a. DNA replication

3b. The duplication of genetic material is needed for cell division since the material must be present in both daughter cells.

5. DNA replicates by separating/unzipping the two DNA strands and then each strand creates a copy of itself matching base pairs. A (adenine) pairs with T (thymine) and C (cytosine) pairs with G (guanine).

6. DNA fingerprinting: Every cell in you body contains a full, identical copy of your DNA. This means, if the DNA from one cell is extracted and compared to the DNA of another cell from your body, they will be identical.

8. Nuclear transplants occur when they take the nucleus from one cell and place it in another cell.

Frog.

Egg cell w/o nucleus.

Nucleus from another cell.

→ Transplant nucleus into

the enucleated cell.

→ New develops into a tadpole.

Sheep.

- Once nucleus is implanted in the egg cell, it develops into an embryo.

→ The embryo is implanted into a carrier mother

A - T	A - T	A - T
T - A	T - A	T - A
C - G	C - G	C - G
G - C	G - C	G - C
A - T	A - T	A - T
T - A	T - A	T - A

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10. The cells of a salamander are not as specialized.

Human cells are more complex

11. Stem cells are unspecialized cells that have the ability to divide into different types of cells.

Unlimited Capacity for Reproduction

12. Cancer cells divide faster than normal cells and they can divide on their own. Also, Cancer cells are have NO function.

not specialized.

13. Viruses, radiation, exposure to chemicals.

Smoking, Sunlight.

Carcinogens → Cause mutations to DNA.

14. Stop smoking, proper diet, reduce sunlight exposure.

15. Because scientists had believed that specialized cells couldn't be used for cloning.

Dolly was the first sheep cloned using mature cells.

19a. The immature cells are capable of cell division. This would permit the regeneration of cartilage ~~in the end of long bones.~~

19b. People who have cartilage problems in their knees would be able to make new cartilage.

24. Answers will vary

Vocabulary BINGO