

Name: _____

Heredity MCAS Test Review

Color: _____ Date: _____ W

Directions: These are the test questions that the majority of students answered incorrectly on the Pre-Assessment at the beginning of the Heredity unit. Each question is circled with the **WRONG** answer. Explain **WHY** the answer is wrong, then choose the correct answer and explain why your new answer is **RIGHT**.

1.

A student prepared the following list of characteristics about a cellular organelle.

- present in animal cells
- present in plant cells
- helps make energy available to the cell

Which of the following cellular structures is the student describing?

- A. cell wall
- B. chloroplast
- C. mitochondrion
- D. nucleus**

Why is that answer **WRONG**?

Correct answer: _____. Why is that answer **RIGHT**?

2.

Which of the following parts of a plant cell has a function that is **most** similar to the function of an animal skeleton?

- A. cell membrane**
- B. cell wall
- C. chloroplast
- D. nucleus

Why is that answer **WRONG**?

Correct answer: _____. Why is that answer **RIGHT**?

3.

A scientist is comparing two body cells of a multicellular organism. Which of the following is most likely identical?

- A. shape of cell walls
- B. number of mitochondria**
- C. shape of cell membranes
- D. number of chromosomes

Why is that answer **WRONG**?

Correct answer: _____. Why is that answer **RIGHT**?

4.

Which of the following is an example of asexual reproduction?

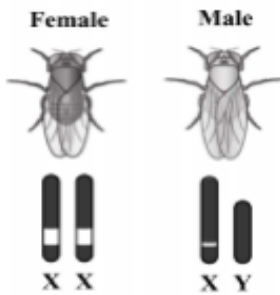
- A. Turtles lay fertilized eggs in a pit in the sand.
- B. Seeds form in pine cones after pollen reaches the cones.
- C. Fish release egg cells and sperm cells at the surface of the water.
- D. Trees send out rootlike extensions that produce new stems.

Why is that answer WRONG?

Correct answer: _____. Why is that answer RIGHT?

5.

The diagram below shows the X chromosomes in a female fruit fly and the X and Y chromosomes in a male fruit fly.



The two fruit flies are crossed with each other. The female offspring of the fruit flies will receive which pair of chromosomes?

- A)
- B)
- C)
- D)

Why is that answer WRONG?

Correct answer: _____. Why is that answer RIGHT?

6.

Jerome crossed two purple-flowered plants. The offspring produced from this cross had either white flowers or purple flowers, as shown in the table below.

Number of Offspring	Flower Color
10	Purple
3	White

Which of the following statements best explains why some of the offspring have white flowers?

- A) These offspring inherited a DNA sequence coding for white flowers from only one parent plant.
- B) These offspring were produced in a dark environment.
- C) These offspring inherited a DNA sequence coding for white flowers from each parent plant.
- D) These offspring were created by asexual reproduction.

Why is that answer WRONG?

Correct answer: _____. Why is that answer RIGHT?