



LA IMMACULADA CONCEPCION SCHOOL

JUNIOR HIGH SCHOOL

GRADE 8 – SCIENCE

March 30 – April 3, 2020

Activity 1

Directions: Encircle the letter of the correct answer.

1. \_\_\_\_\_ happens when pairs of sister chromatids align at the center of the cell.  
a. prophase  
b. Anaphase  
c. Telophase  
d. Metaphase
2. which of the following is NOT part of mitosis?  
e. anaphase  
f. interphase  
g. prophase  
h. telophase
3. A nuclear envelope forms around each set of sister chromatids in \_\_\_\_\_.  
i. prophase  
j. anaphase  
k. telophase  
l. metaphase
4. Cytokinesis occurs at the end of \_\_\_\_\_.  
m. prophase  
n. anaphase  
o. telophase  
p. metaphase
5. cytokinesis is \_\_\_\_\_.  
q. cytoplasmic division  
r. movement of material within eukaryotic cells  
s. separation of divided cells  
t. none of the above
6. DNA replication is controlled at the \_\_\_\_\_ checkpoint.  
u. G1 phase  
v. Synthesis phase  
w. G2 phase  
x. Mitosis
7. Which of the following is the same in cancer cells and normal cells?  
y. rate of cell growth  
z. nutrients needed for growth  
a. How often these cells divide  
b. arrest in division when they touched other cells.
8. Which of the following is the period during the cell cycle of a cell's growth and development?  
c. interphase  
d. metaphase  
e. anaphase  
f. telophase
9. Which of the following is NOT associated with mitosis?  
g. growth of height  
h. repair of the stomach  
i. production of egg and sperm  
j. growth of fetus inside the womb.
10. Which of the following occurs only during the formation of sex cells?  
k. meiosis  
l. haploid cells  
m. mitosis  
n. diploid cells

Activity 2

Directions: Answer the following questions.

1. What are sister chromatids? (2points)

---

---

---

2. How do the events in the cell cycle ensure that each new cell will be genetically identical to the original cell? (3points)

---

---

---



LA IMMACULADA CONCEPCION SCHOOL

JUNIOR HIGH SCHOOL

GRADE 8 – SCIENCE

3. How does the DNA content of the cell change from prophase to telophase? Does the number of chromatids change? Explain. Does the number of chromosomes change? Explain. (5points)

---

---

---

---

---

Activity 3

Directions: Fill in the blanks with the correct answer.

1. If a parent cell has 16 chromosomes, then each of the daughter cells which are products of meiosis will have \_\_\_\_\_ chromosomes.
2. \_\_\_\_\_ is the point at which two non sister chromatids intersect during crossover.
3. A \_\_\_\_\_ is a structure formed when two homologous chromosomes synapse during prophase.
4. The \_\_\_\_\_ are female sex cells.
5. Crossing over occurs during \_\_\_\_\_.
6. In \_\_\_\_\_, homologous chromosomes align at the center.
7. Sister chromatids attach at the \_\_\_\_\_.
8. A human sperm cell has \_\_\_\_\_ chromosomes.
9. Meiosis begins with one cell and ends with \_\_\_\_\_ cells.
10. When cell divide during meiosis, homologous chromosomes are randomly distributed to daughter cells, and different chromosomes are \_\_\_\_\_ of each other.

Activity 4

Directions: Answer briefly.

1. How do the end products of meiosis differ from those of mitosis? (2points)

---

---

---

2. Explain why the chromosomes in a haploid cell produced after meiosis I look different from those produced after meiosis? ( 2points)

---

---

---

3. How does cytokinesis in the production of the eggs in females differ from cytokinesis in regular mitotic cell division? ( 2points)

---

---

---

4. How can two species have the same number of chromosomes but have different characteristics? (2points)

---

---

---

5. How is meiosis II more similar to mitosis than to meiosis I ? How does it differ? (2points)

---

---

---