

Name _____ Date _____ Period _____

DNA & Cell Division Practice

1. Fill in the opposite side of the DNA strand.

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

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

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

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

2. What does DNA stand for?
3. What shape is the DNA molecule?
4. Why do chromosomes come in pairs?
5. How many PAIRS of chromosomes do humans have?
6. Rank the following from smallest to largest (1 → 6)

base pairs	gene	nucleus	cell	chromosome	DNA

7. Who was credited for discovering the DNA molecule?
8. Who actually discovered the shape/ of DNA?

9. Draw each stage of Mitosis and describe below your picture what is happening.

Stage 1	Stage 2	Stage 3
Description	Description	Description

10. Draw each stage of Meiosis based on the description.

Stage 1	Stage 2	Stage 3	Stage 4
Description Normal parent cell	Description Cell gets bigger Organelles are copied DNA is copied	Description Cell divides into 2 diploid daughter cells	Description Both cells divide into 4 haploid daughter cells

11. What is the main purpose of mitosis?

12. What is the main purpose of meiosis?

13. What is the main difference between mitosis and meiosis?