

Name _____ **answer** _____ Date _____

MITOSIS AND MEIOSIS

CHROMOSOMES

1. How many chromosomes are in a human body cell? **46**
2. What are duplicated (doubled) chromosomes called? **homologous pairs**
3. What holds chromatids together? **centromere**
4. What makes up each chromosomes? **DNA tightly coiled into two sister chromatids connected by the centromere**
5. Uncoiled chromosomes are called **chromatin**

CELL CYCLES

6. Why does the body constantly make new cells?
**Cells get too large for efficient diffusion of substances across the cell's interior.
For unicellular reproduction - ex. fission
The larger the cell becomes, the more demands the cell places on its DNA.
For the growth of multi-cellular organisms. (ex. Fertilized egg divides and becomes a multi-cellular organism)**
7. From where do new cells arise?
All cells come from other cells
8. Copying DNA is known as? **replication**
9. Why must each new cell get a complete copy of the original cell's DNA?
Cells need a complete set of DNA to function properly - it is the instruction manual for the cell.
10. The original cell that divides is called the **mother** cell, while the two, new identical cells are called **daughter** cells.

CELL REPRODUCTION

11. What is asexual reproduction?
making new cells by making exact copies of the mother cells. Only one parent.
12. What is sexual reproduction and give an example!
**The formation of offspring by the combination of haploid cells from the mother and father.
Require two parents**
13. Which process produces identical new cells. Mitosis, meiosis, or both?
Mitosis