

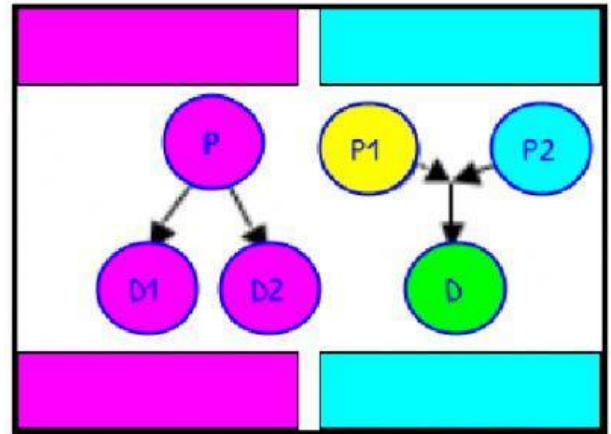
# Notes: Cell Division (Reproduction)

There are 2 kinds of cell division:

- ❖ \_\_\_\_\_ and \_\_\_\_\_.
- ❖ Asexual is scientifically called \_\_\_\_\_.
- ❖ Sexual is scientifically called \_\_\_\_\_.

## Asexual Reproduction

- has the prefix "a" meaning \_\_\_\_\_.  
This is \_\_\_\_\_ sexual reproduction!
- Instead, \_\_\_\_\_ parent cell divides to form \_\_\_\_\_ identical daughter cells with the \_\_\_\_\_ genetic information.
  - **ADVANTAGES:** \_\_\_\_\_; produces genetically \_\_\_\_\_ offspring.
  - **DISADVANTAGES:** cells lack genetic \_\_\_\_\_; organisms may NOT have characteristics needed to \_\_\_\_\_ if the environment changes.



## Sexual Reproduction

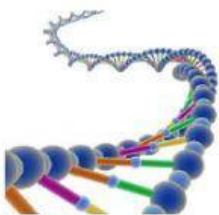
- The scientific name for this process is called \_\_\_\_\_.
  - This is when 2 different parent cells (\_\_\_\_\_ and \_\_\_\_\_) form one new daughter cell with a combination of genetic information from \_\_\_\_\_ parents.
    - **ADVANTAGES:** offspring are genetically \_\_\_\_\_ than parents and the species can try out new genetic \_\_\_\_\_. This diversity helps species \_\_\_\_\_ to changes in the environment.
    - **DISADVANTAGES:** This process is much \_\_\_\_\_ than asexual reproduction.
- \* Only the sex cells (\_\_\_\_\_ and \_\_\_\_\_) will go through sexual reproduction or \_\_\_\_\_!
- \* All other cells in your body will go through asexual reproduction or \_\_\_\_\_!

Reproduction starts with the \_\_\_\_\_!

The DNA must make a \_\_\_\_\_ of itself so that each new daughter cell gets its own copy.

(But, DNA is a term commonly misused. So what's the deal?)

- DNA is the \_\_\_\_\_, twisted ladder, molecule that consists of \_\_\_\_\_ that code for our \_\_\_\_\_.

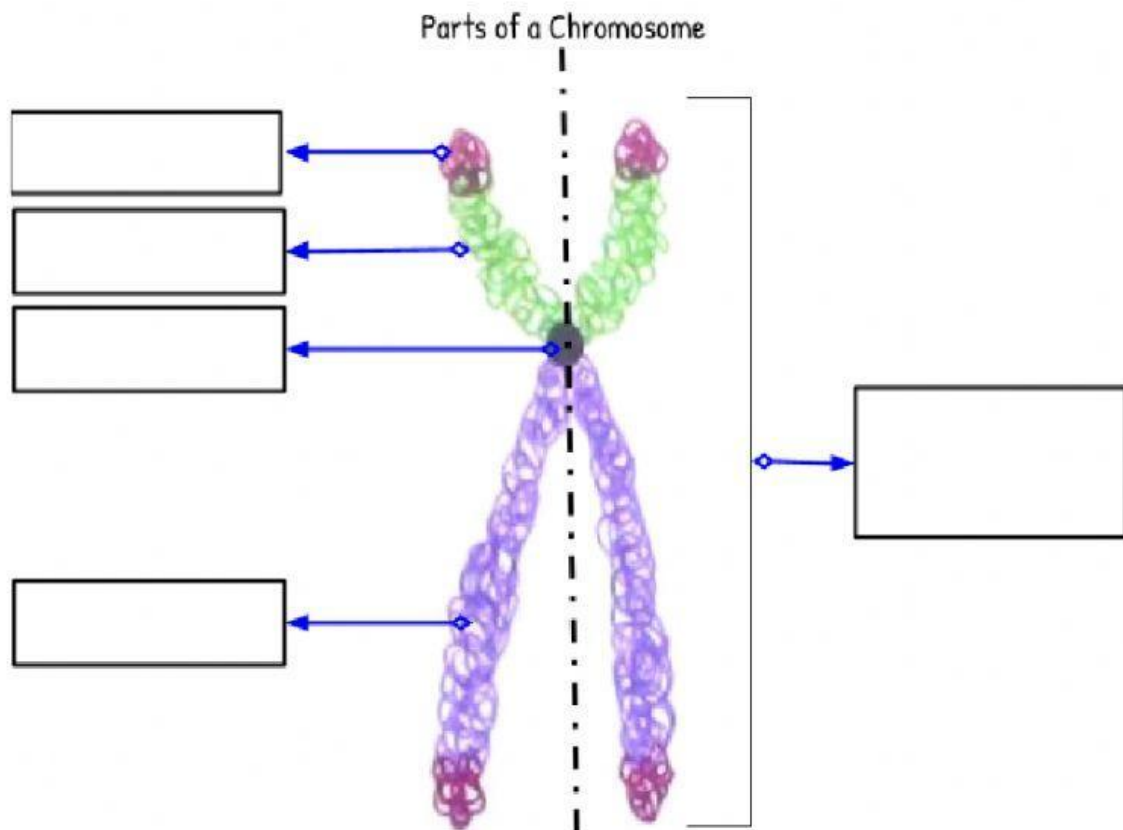


- Chromatin is \_\_\_\_\_ DNA that is wadded up in the \_\_\_\_\_, (or center of the cell for \_\_\_\_\_ that have no nucleus.)



- When the cell is ready to copy the genetic code, the chromatin will organize itself around proteins. The chromatin will densely compact itself around the proteins as it makes its copy and forms an "X" shape. Now it is called a \_\_\_\_\_.
- Chromosomes in the "X" shape are so \_\_\_\_\_ that they can be seen with a \_\_\_\_\_. The "X" shape shows that the copy of the genetic code is already \_\_\_\_\_.

made! The right and left halves are exactly \_\_\_\_\_. The halves are called \_\_\_\_\_. The sisters will \_\_\_\_\_ during the cell division process. So, each new cell now has its own DNA.



A cell's life cycle has 2 parts: \_\_\_\_\_ and \_\_\_\_\_ (M stands for Mitosis or Meiosis when the cell is reproducing making new daughter cells!)

\*\* Cells spend most of their time in Interphase. In fact, \_\_\_\_\_ % of their life is in Interphase!  
Therefore, \_\_\_\_\_ % of their life cycle is spent dividing.

Diagram of a Cell's Life Cycle

