

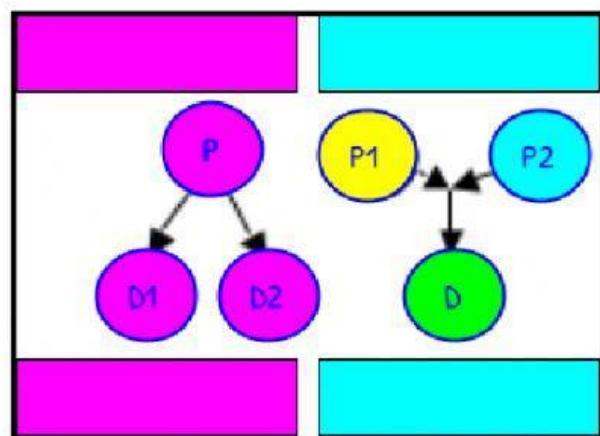
Notes: Cell Division (Reproduction)

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.

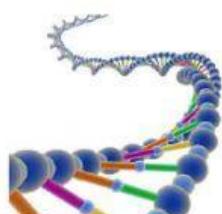
* Only the sex cells (_____ and _____) will go through sexual reproduction or _____!

* All other cells in your body will go through asexual reproduction or _____!

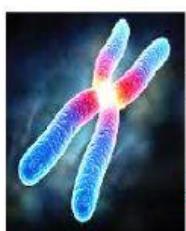
Reproduction starts with the _____!

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?)

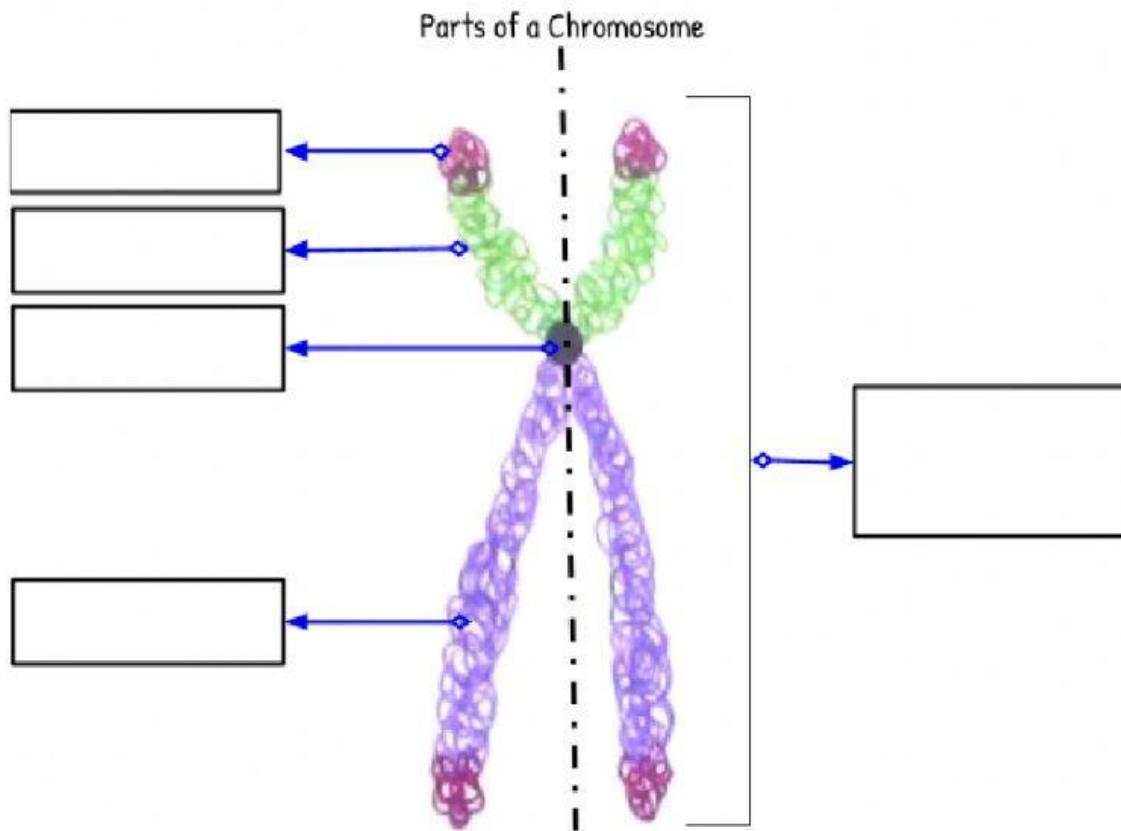


- DNA is the _____, twisted ladder, molecule that consists of _____ that code for our _____.
- Chromatin is _____ DNA that is wadded up in the _____, (or center of the cell for _____ that have no nucleus.)



- 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 it 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

