

# Introduction to Genetics Notes

## What is genetics?

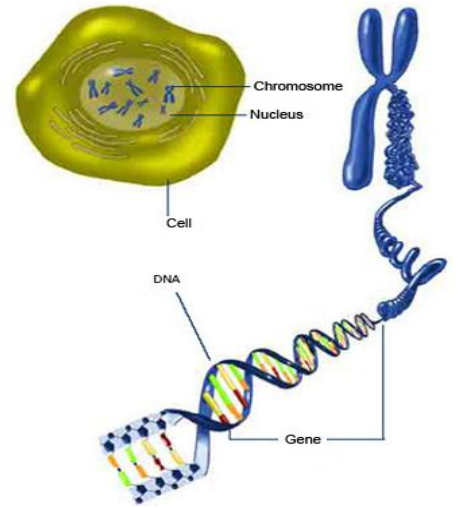
- The study of how \_\_\_\_\_ are inherited through the interactions of \_\_\_\_\_

## DNA

- Contains \_\_\_\_\_ for the \_\_\_\_\_
- Made of two strands \_\_\_\_\_ together in a \_\_\_\_\_
- \_\_\_\_\_% of your DNA is identical to everyone else's
  - The remaining \_\_\_\_\_% controls our differences (hair color, eye color, height, etc.)

## Genes

- Short segments of \_\_\_\_\_
- one \_\_\_\_\_ molecule contains many \_\_\_\_\_
- Each \_\_\_\_\_ has instructions for a \_\_\_\_\_ in an organism



## Chromosomes

- Packets of \_\_\_\_\_-up \_\_\_\_\_
- Humans have \_\_\_\_\_ chromosomes in our \_\_\_\_\_ cells  
(\_\_\_\_\_ in our sex cells)
- \_\_\_\_\_ parent contributes \_\_\_\_\_ of his/her chromosomes to its \_\_\_\_\_

## Heredity

- The \_\_\_\_\_ of \_\_\_\_\_ from \_\_\_\_\_ to \_\_\_\_\_

## Traits

- \_\_\_\_\_ or features
- Genetic traits are passed from parents to offspring (by genes)
- Traits can be \_\_\_\_\_ by the \_\_\_\_\_
  - Ex: your **hair color** may become lighter after being in the sun for long periods of time
  - Ex. **height** can be reduced by malnutrition when you are young

## Traits & Reproduction

<b>ASEXUAL</b>	<ul style="list-style-type: none"> <li>• The offspring have the _____ traits as parents (same _____)</li> <li>• Very little _____ from generation to generation.</li> </ul>
<b>SEXUAL</b>	<ul style="list-style-type: none"> <li>• Offspring get a random _____ of _____ from each parent.</li> <li>• More _____! (New combinations of _____ with each new generation.)</li> </ul>