**Conga Line Game**

**Game Pieces (Sheet 1 of 2)**

- **EPIGENETICS**
  - The process when a gene is activated and performs a function, appearing as a phenotype.

- **GENE EXPRESSION**
  - Cells that have the potential to develop into many different types of cells in the body.

- **TISSUE**
  - A group of different tissues that work together to perform a body function.

- **BODY SYSTEMS**
  - A network of specialized cells that carry messages to and from the brain to various parts of the body.

- **NERVOUS SYSTEM**
  - A collection of bones, tendons, and ligaments that form the body's framework.

- **START**
  - The study of how changes in gene expression affects the phenotype but DOES NOT change the DNA sequence.

- **STEM CELLS**
  - A group of cells that work together to perform a specialized function.

- **ORGANS**
  - A group of organs and tissues working together to perform important functions in the body.

- **SKELETAL SYSTEM**
  - The heart and blood vessels move blood through the body, bringing oxygen and nutrients and removing waste.

- **CIRCULATORY SYSTEM**
  - A temporary organ that forms in the uterus during pregnancy. Provides nutrients and oxygen to the offspring.
**Game Pieces (Sheet 2 of 2)**

- **PLACENTA**
  - Substances that are harmful or poisonous to humans such as arsenic.

- **TOXINS**
  - The chemical bonding of methyl groups \((\text{CH}_3)\) to DNA that changes when genes are active and not active.

- **METHYLATION**
  - Observable physical characteristics of an organism such as how they look and act.

- **PHENOTYPE**
  - An alteration of the body's biochemistry which results in cells, tissues, or body systems to function abnormally.

- **METABOLIC DISEASES**
  - Endocrine system gland located in the abdomen that produces the hormone insulin to aid in digestion.

- **PANCREAS**
  - Hormone produced by the pancreas that lowers the levels of glucose in the blood.

- **INSULIN**
  - A simple sugar molecule \((\text{C}_6\text{H}_{12}\text{O}_6)\) the body uses as the primary source of energy in the body.

- **GLUCOSE**
  - High blood sugar levels in the blood caused by the body's inability to produce or use insulin correctly.

- **TYPE 2 DIABETES (T2D)**
  - Cell receptors unresponsive to insulin preventing glucose from entering the cell.

- **END**
  - Insulin resistant

- **DNA UNIT | LESSON 1:** ARSENIC AND EPIGENETICS: A DNA STORY
  - **ACTIVITY 1A:** CONGA LINE

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Name:  
Date:  
Period:  

CONGA LINE GAME

START END

ACTIVITY 1A: CONGA LINE

DNA UNIT | LESSON 1: ARSENIC AND EPIGENETICS: A DNA STORY

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