*The Wonderful Mechanics of the Brain*

Our brains begin as a single cell shortly after conception, and then begin dividing in a process we call meiosis. *From this process, a single cell divides into two carrying half of the chromosomes of each parent cells. It then further divides into four haploid cells resulting in genetic diversity. After that, neurulation occurs where the brain is formed into a neural tube which then undergoes specialization and regionalization to form the various regions of the brain, such as the forebrain, midbrain, and hindbrain and then slowly develops to become the regions of the brain that we know of such as the cerebrum, cerebellum, and etc.* The brain of every other individual has much in common with each other, but is also different. Some brains are able to think visually. Others have musical or linguistics talent. And others' have athletic ability.

*Because of how different the brain of each individual has, there can never be two humans with similar identity, personality, or behavior. For example, twins can have very similar physical makeup but can both have very contrasting personalities e.g. Adam and Matthew are twins. Adam and Matthew share similar looks; however, Adam is not much of a talker and is more introverted, while Matthew is very outgoing and is extremely extroverted. Also, did you know that there is only 1 in 64 billion chance for two individuals to share the same thumb print? The entire human population isn’t even 64 billion; however, to have similar thumb print is a probability that one might never encounter in a lifetime.*

There is still much we do not know about the brain, but scientists are learning more about it all the time. The brain has over trillion nerve cells of two types: glial and nerve cells. The adult human brain is a wait, fragile, pink mass-feels like play dough. It can seem to stop time by recapturing a memory. It has enough energy to power a light bulb. *The brain is also capable of seamlessly adapting to our experiences and its ability to quickly heal itself from injuries and allows the neurons within it to rewire itself into a new connection, also known as neuroplasticity*. It weighs a little over three pounds, is shaped like a walnut, and fits into the palm of your hand. It works constantly. It represents 2% of body weight and consumes 20% of our calories and 25% of our oxygen. It works unceasingly. When it "thinks" harder, it uses more fuel. It physically changes as it adapts to its environments.