Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_\_\_

**Mitosis Reading Guide**:

Pages 98 – 104 in Green Textbook.

1. List some ways that cell reproduction is important to our bodies.
2. What are three different examples of cell cycle lengths?
3. What are some things that are happening during interphase of a cell cycle?
4. What is mitosis?
5. What happens to chromosomes during interphase?
6. What are the two important things to remember about mitosis?
7. What can you say about the chromosomes of all the billions of cells in your body (except sex cells)?
8. What is asexual reproduction?
9. Give four examples of sexual and asexual reproduction.

**Single Gene Traits:**

Most traits are controlled by more than one gene, but here are a few that we can track on only one gene. Find out what your genotype is for these traits!

|  |  |  |
| --- | --- | --- |
| Trait | Your Phenotype | Your Genotype |
| Tongue Rolling – the ability to roll the tongue is dominant R while non-rolling is recessive r |  |  |
| Free ear lobe – Having a ‘free’ lobe is dominant E and attached is recessive e. |  |  |
| Hand clasping – Clasp your hands together. If your left thumb is on top, this is dominant C, if the right thumb is on top it’s recessive c. |  |  |
| Hitchikers thumb - Hold out your hand and make a fist with the thumb extended. Bend your thumb back as far as possible. A straight thumb is dominant S while a slanted/bent thumb is recessive s. |  |  |
| Bent pinkies – Place the palms of your hand together side by side gently (not pushing on it). The dominant trait is for the last two joints of your little finger to bend away from each other B, and straight fingers are recessive b. |  |  |
| Widow’s peak – the dominant gene results in a hairline that forms a point in the middle of the forehead W. A straight hairline is recessive w. |  |  |
| Dimpled Chin – a cleft in the chin is dominant D while no cleft is recessive d. |  |  |
| Finger hair – hair on the backs of your fingers is dominant H, and no hair is recessive h. |  |  |
| Dimples – small indentations on the surface of your cheeks when you smile is dominant D and not having them is recessive d. |  |  |