“Cracking Your Genetic Code”

Mr. Dangerfield’s class- Bio Unit (Genetics)

---------------------------------

1. What is genomics?
2. What is a possible affect of genetic testing?
3. What is a genome?
4. The company Illumina specializes in what?
5. Describe the process used to get the DNA.
6. To obtain the first genome, it took \_\_\_\_\_\_\_ years.
7. To obtain the first genome cost \_\_\_\_\_\_\_\_\_\_.
8. There are \_\_\_\_\_\_\_ genes in \_\_\_\_\_\_ pairs of chromosomes.
9. Genes code for \_\_\_\_\_\_\_\_\_\_\_.
10. Spelling errors are misspelled genes. These produce what?
11. How similar are human genomes?
12. There are how many differences in the spelling of genes between people?
13. It only takes \_\_\_\_\_\_\_ letter variance to pre-dispose an individual to certain traits of diseases.
14. How did the director of NIH test companies that do genome sequencing?
15. What did he find out about himself?
16. Finding out about your specific genome could be a teachable moment. Why?
17. Do all companies give the same information?
18. Give an example of how finding out about your genetics could make you change your lifestyle for the worse.
19. APOE4 on chromosome 19 has been associated with what?
20. What other factors are needed to be taken into consideration besides knowing that you have APOE4?
21. Most genetic information is probabilistic. What does that mean?
22. In the genetic code, how is Huntington’s disease seen?
23. How can knowing that you have a chance of acquiring a disease affect you?
24. Why did author Elton think about having genetic testing?
25. If she found out she was predisposed to getting breast cancer, what things could she have done that she may not have done otherwise?
26. So far scientist have found \_\_\_\_\_\_\_ actionable genes.
27. What is Cystic Fibrosis?
28. The gene for Cystic Fibrosis is recessive. In order for someone to get this disease they must receive the gene from which parent?
29. Describe the role of the protein produced by the normal gene in a person who does not have Cystic Fibrosis.
30. Describe the problem with the protein produced by the gene of a person who does have Cystic Fibrosis.