

Name: _____

Class: _____

Date: _____

Biology
Mr. Croft

NOVA - Cracking the Code of Life

40 Points

1. Eric Lander describes the human genome as being like a parts list. How is the genome like a parts list?

2. To what degree are all humans identical at the genetic level?

3.
 - a. About what percentage of the genes in a banana are also in a human? _____
 - b. Why is this figure so high?

4. What does DNA look like to the naked eye?

5.
 - a. In 1989, scientists discovered the first disease-causing gene in humans. What was the disease?
 - b. What was wrong with the gene?

6.
 - a. It was long thought that humans had around 100,000 genes. The initial survey of the human genome indicated that there were only about _____ genes in humans.
 - b. What interesting fact about human genes allows humans to be so much more complex than something like a fruit fly?

7. Scientists working on the Human Genome Project (HGP) found that the chromosomes were not packed with one gene after another.
 - a. How are genes distributed on the chromosomes?

 - b. How much of the chromosomes are actually genes?

8.
 - a. When was the Human Genome Project completed? _____
 - b. Who won "the race"?