

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

Date: \_\_\_\_\_

The Human Genome Project Video

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

1. How many cells are we made out of?
2. How many pairs of chromosomes are we made out of? What are chromosomes made up of?
3. What is the shape of DNA?
4. What are the four base types of bases and how do they pair?
5. How are scientists reading the human genome? What are they doing to the DNA?
6. What percentages of DNA is the same in all persons?
7. What is so miraculous about the family from Malone shown in the video? What is the gene? Where is it? What is the difference in this family's genetics when compared with an average person?
8. What are the molecular "machines" in us? Why are they so important?
9. How many amino acids are there?

10. What is the job of mRNA?
  
  
  
  
  
  
  
  
  
  
11. Which organelle carries its own DNA? From whom is it inherited? What did this allow scientists to figure out?
  
  
  
  
  
  
  
  
  
  
12. What are some things scientists might possibly be able to do in the future to help prevent genetic disease?
  
  
  
  
  
  
  
  
  
  
13. What is the major challenge scientists are facing in finding a cure to cancer?
  
  
  
  
  
  
  
  
  
  
14. What protein helps to prevent cells from dividing uncontrollably?
  
  
  
  
  
  
  
  
  
  
15. A deformity of the p53 protein is due to a flaw in what gene?
  
  
  
  
  
  
  
  
  
  
16. What kind of organisms are scientists trying to use to fix the gene that you put down for the last question?
  
  
  
  
  
  
  
  
  
  
17. What problems do free radicals cause?
  
  
  
  
  
  
  
  
  
  
18. How is aging genetic? What role do the telomeres play in the aging process?