

1. Where do genes come from? \_\_\_\_\_
2. What is inside every cell in your body? \_\_\_\_\_
3. What does DNA stand for? \_\_\_\_\_
4. What did Bill climb to get out of the Nye Lab at the beginning of the video?  
\_\_\_\_\_
5. Bill uses a reel of \_\_\_\_\_ to represent a DNA molecule that is about 200 meters long.
6. How many times longer is DNA than it is wide? \_\_\_\_\_
7. How does Bill define a gene? \_\_\_\_\_
8. Why is the white blood cell dark on the computer screen? \_\_\_\_\_  
\_\_\_\_\_
9. What can you do with DNA after you take it out of an organism?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
10. What two organisms were combined to create the message to Bill in the petri dish? \_\_\_\_\_ and \_\_\_\_\_
11. What do genes do? \_\_\_\_\_  
\_\_\_\_\_
12. Mom tells Richie: "Genes are the set of \_\_\_\_\_  
passed down from \_\_\_\_\_ to child. In the process, of course, the genetic material is \_\_\_\_\_ in new ways, which is why some people bear resemblance to their \_\_\_\_\_ and \_\_\_\_\_ without looking like any one relative in particular."
13. What analogy does Bill use to describe the human set of chromosomes?  
\_\_\_\_\_
14. What is each chapter analogous to? \_\_\_\_\_

15. How many genes do humans have? \_\_\_\_\_
16. What do cells in the body need to do? \_\_\_\_\_
17. Most species have fewer than \_\_\_\_\_ chromosomes but thousands and thousands of genes.
18. Bill calls the babies “bundles of \_\_\_\_\_”.
19. The reproductive cell that the mother donates to her child is called a(n) \_\_\_\_\_.
20. The reproductive cell that the father donates to his child is called a(n) \_\_\_\_\_.
21. The number of \_\_\_\_\_ needed to make a baby is 50,000,000,000,000.
22. DNA is the \_\_\_\_\_ print to the future.
23. Earlobes can be \_\_\_\_\_ or \_\_\_\_\_.
24. A \_\_\_\_\_ is a piece of the \_\_\_\_\_ molecule.
25. The four chemicals of DNA are:
- a. A \_\_\_\_\_
  - b. T \_\_\_\_\_
  - c. C \_\_\_\_\_
  - d. G \_\_\_\_\_
26. The number of chromosomes a mule foal has is \_\_\_\_\_.
27. The number of chromosomes a horse has is \_\_\_\_\_.
28. The number of chromosomes a donkey has is \_\_\_\_\_.
29. In the demonstration, the \_\_\_\_\_ gene for rolling your tongue is represented by the letter “R”.
30. In the demonstration, the \_\_\_\_\_ gene for rolling your tongue is represented by the letter “r”.
31. If a person has the RR pattern, then the person \_\_\_\_\_ roll their tongue.
32. If the person has the Rr pattern, then the person \_\_\_\_\_ roll their tongue.
33. If the person has the rr pattern, then the person \_\_\_\_\_ roll their tongue.
34. What is special about the turtle in the movie? \_\_\_\_\_