

Bill Nye “Genes” Video

Name _____

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? _____