

Genes Video

Bill Nye

Name _____ Period _____ Date _____

1. Where do you get your genes? _____
2. If a DNA molecule were as wide as a piece of rope, it would be _____ long!
3. A DNA molecule is _____ times longer than it is wide.
4. _____ is the chemical that _____ are made of.
5. Thousands and thousands of _____ are joined together to make _____.
6. Humans have _____ pairs of chromosomes, for a total of _____.
7. It's like the instructions are stored in _____ books.
8. Each chapter in a book is like a _____.
9. Humans have _____ genes. It's like we have _____ chapters in _____ books.
10. If you are a cell in a body, do you need to read every chapter in every book? Why or why not?

11. You get _____ chromosomes from your Mom and _____ chromosomes from your Dad.
12. Human genes can combine in about _____ different combinations. All these combinations from only _____ chemicals!
13. How many pages would it take to print out the list of the combination of chemicals for the hair color gene? _____
14. How many pages would it take to print out the list of the combination of chemicals for the whole human? _____

**Alice in Genes
It's Called Genetics
Soundtracks of Science
Not That Bad Records**

¹Danny has a brown haired Father,
²And Danny has a brown haired Mother.
³Turns out Danny has brown hair, too.
⁴That was the most likely color.

⁵Mary has a blue eyed Father,
⁶And Mary has a blue eyed Mother.
⁷Turns out Mary has blue eyes, too.
⁸That was the most likely color.

⁹Mary and Danny had a baby,
¹⁰So now I'm wondering if maybe,
¹¹Since Danny's hair is curly,
¹²And Mary's hair is straight,
¹³Then the baby's hair will be wavy.

¹⁴You know, it's called
¹⁵Genetics!
¹⁶You know, it's called
¹⁷Genetics!

¹⁸The DNA makes you what you are!
¹⁹The apple from the tree doesn't fall very far!

²⁰It's a recipe,
²¹For what you will be.
²²When you take a look,
²³I think you're gonna see.

1. What is the meaning of lines 1-4?

2. What is the meaning of lines 9-13? Be sure to talk about why the baby's hair would be wavy.

3. What is the meaning of lines 20-21?
