Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**I CAN** explain how inherited traits are passed from generation to generation and how they are different than learned traits.

P. \_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_

**Bill Nye Video Questions: GENES**

1. The way you are comes from your ***parents***. You get your ***genes*** from your parents.

2. The pictures of “little compartments are called ***cells***. Inside each cell there is

***DNA***.

3. DNA is shaped like a ***ladder*** and made of

***four main*** chemicals.

4. Thousands of genes are joined together to make ***chromsomes***.

5. A specific piece of DNA is called a ***gene***.

6. Your genes provide the information to make your ***left arm***.

7. Why is it not her fault that she has a big nose as Richie pointed out?

***inherited from parents***

8. Humans have ***23*** pairs of chromosomes.

9. Humans have about ***80,000*** genes.----NOTE: this is NOW estimated to be 20,000

10. Genes determine a lot of different things like ***eye color***.

11. A sperm and egg have ***half*** as many chromosomes as a normal body cell.

12. The DNA in every living thing is made of just ***four (4)*** chemicals called

*A* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, ***\_\_\_T***\_\_\_\_\_\_\_\_\_\_\_\_, ***\_G***\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ***C\_\_\_\_\_\_\_***

13. To print out the gene for Bill’s hair color, it would take ***five (5)*** pages of paper.

14. Mules are a hybrid of what two animals? ***horse*** and ***donkey***. (female horse + male donkey)

63 64 62 (male horse + female donkey=hinny)

15. Mutations caused the turtle to have ***two (2)*** heads.