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

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

Video: “Understanding the Power of Genes”

Watch the Assignment Discovery Video and answer the questions as you go along. The questions are in sequential order.

**Part I**

1. What does evolution really mean in the field of genetics?

2. DNA is a ‘silent \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_’, it helps solve crimes.

3. Explain the Marilyn Shepard case.

1. Who was the accused?
2. How was it solved?

c. What did the DNA evidence prove?

4. What is the FBI’s most powerful tool?

5. Have cows been cloned?

6. Who was the world’s first clone?

7. What are the steps taken to create a clone?

8. One in every \_\_\_\_\_\_\_ pregnancies results in a clone.

9. What is a transgenic animal?

10. What may eventually end up in the cow’s milk?

11. What may be a consequence of inserting transgenic organs into humans?

12. How might endangered species be saved?

13. Is it currently possible to create a real Jurassic Park?

**Part II**

14. Why won’t clones be exactly the same as the original?

15. Do twins separated at birth have the same behaviors?

16. Genes code for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and all that proteins do is to control \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ inside the brain.

17. Explain the difference between the novelty-seeking gene and the anxiety gene.

18. What is the Human Genome Project?

19. What does a gene hunter do?

20. Explain the gene therapy going on with the heart patient. What does this new protein do?

21. What is happening to the human lifespan?

Comprehension Questions

The following questions are meant to be thought-provoking about the future of gene technologies and science ethics. These questions require you to give answers based on what you currently know and your opinions. You must give detailed answers and back up your opinions for credit to be earned.

1. In the video the biotech company is getting patents for gene sequences that they have found link to genetic disorders. Do you think it is fair that companies can do this? Explain.

2. What is happening to the human lifespan? Is this a good thing? Explain.

3. What are the pros and cons of using DNA evidence in court?

4. Is matching DNA sufficient evidence to convict someone of a crime? Explain

5. Should we use genetic therapies to cure cosmetic problems such as baldness? Explain.

6. Explain why there is infinite variety in the living world.

7. How far should we take genetic manipulation and cloning? What are some of the pros and cons of this biotechnology?

8. Do you have the novelty-seeking gene or the anxiety gene? Explain