Genetics Webquest

Write your answers on your own paper.

Before beginning you can play the dog genetics game for 5 minutes. Describe what you did in the game.

<http://pbskids.org/dragonflytv/games/game_dogbreeding.html>

General Genetics

Click on Getting Started. These first questions you need to use google to find the answers.

1. What is Genetics?

2. What are Genes made of?

Click on Operations of DNA

3. If DNA were straight it would be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

4. DNA’s shape is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

5. DNA is made of\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Click on Operations of Chromosomes

6. DNA coils up to form a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

7. How many chromosomes does a mosquito have?

8. How many chromosomes does a cabbage plant have?

9. How many chromosomes does a human have?

Click on Current Science

10. Explain what is being experimented with cloning.

11. Click on The Quiz, take the quiz, in the name box type the letter A.

<http://history.nih.gov/exhibits/genetics/kids.htm>

Watch the slide show.

12. The human body is made of \_\_\_\_\_\_\_\_\_\_\_, which have a nucleus; inside the nucleus are

\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which have the instructions \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

13. Write 2 more sentences about the slides.

Punnet Square Review

<http://www.athro.com/evo/gen/punexam.html>

14. Find Monohybrid Crosses ONLY, for the first two questions under monohybrid crosses answer

the question for each of the choices in the drop down box. The first choice is bb genotype, and you

pick the chance of having it. Then you change the bb genotype to another and pick the chances

again, it will tell you if you are right or wrong.

Mendel Review

<http://anthro.palomar.edu/mendel/mendel_1.htm>

15. Mendel is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

16. Name seven traits that Mendel found are passed from one generation to another without being

changed or blended; they appear in only one of two forms. 17. What are two reasons that Mendel chose to use pea plants for his experiments?

18. What are the 3 important conclusions he came to as a result of his work?

Pedigrees

<http://www.biotopics.co.uk/genes/pedigr.html>

Pedigrees are diagrams that track a particular trait through a family to show possible carriers and

those who are affected by a condition.

19. What color is the symbol that represents a person who does not show a trait? What color is the

symbol that represents a person who shows the trait?

Genetic Disorders

<http://www.nlm.nih.gov/medlineplus/geneticdisorders.html>

20. What is a genetic disorder?

21. What is a mutation in a gene?

22. What are some ways mutations can happen?

23. What is another way to get a mutated gene?

24. Some genetic disorders are cause by a problem with

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

25. Look up 3 genetic disorders and describe them below.