

Gizmo – Mouse Genetics

You want to explore Patterns of Inheritance. Go to the “gizmo” web site. Launch the gizmo and complete the information requested.

Instructions

1. Go to the following web site: www.explorescience.com
2. In the top right corner is the login. Click on “Enroll in a class.” You must enter the Class Code. It is SDBMZLKEMW. Click on “Continue.”
3. You will be asked to enter some information and add a password to limit access to your page to only you. Complete the necessary steps and create yourself a password.

CONGRATULATIONS – You are in. Welcome to the gizmos of Explore Learning web site.

You should be in the class SBI 3U Grade 11 University Biology. There are a number of gizmo installed to help you test your understanding of the concepts and practice your skills for this course.

PART 1: Observing and Predicting Patterns of Inheritance

4. Under the heading “Genetics,” find the gizmo **MOUSE GENETICS (One Trait)**
5. Click on “Lesson Info.” You are on a screen with Lesson Information. There is a Student Exploration Sheet, an Answer Key and a Vocabulary Sheet, plus some Assessment Questions.
6. Click on the Word version of “Student Exploration Sheet” and answer the three pre-gizmo questions.
7. Read some of the other information on this sheet to familiarize yourself with the steps and purpose....then minimize this page....but keep it handy for referencing later.
8. Click on the heading “Gizmo” to launch the activity.
9. Drag a black mouse over the Parent 1 label in the purple breeding cage at the top of the tree diagram. Then, drag a second black mouse over the Parent 2 label in the same cage. These mice will be the parents (P Generation) for your first experiment.
10. Click on the box “Show Genotype” and point to Parent Mouse #1 to learn its fur genotype. Repeat for Parent Mouse #2 to learn its genotype

Questions

- a. What is the fur genotype of a black mouse?
 - b. What is this type of genotype called?
 - c. What colour of offspring do you expect from this cross in the F₁ Generation?
Explain.
11. Click “Breed” and observe the offspring. What your answer for c correct?
 12. Click on the box “Show Statistics” and “Show as approximate percentage” to see the numeric results of your breeding.
 13. Click “Clear”
 14. Drag two white mice to the breeding cage and repeat the breeding steps

Questions

- a. What is the fur genotype of a white mouse?
 - b. What is this type of genotype called?
 - c. What colour of offspring do you expect from this cross in the F₁ Generation?
Explain.
15. Click “Clear”