

Biology 40S | Macro - genetics – Punnett Squares

Mechanisms of Inheritance

Assignment 2

Read and answer the following big picture question by researching, discussing with a partner, asking other teachers, and reading online notes and videos on (www.sciyeung.com).

The big picture question will involve smaller leading questions that will help you along the way.

Big Picture question:

1. *What attributes to the calculation of probability in genetics and how do we calculate probabilities of various genetic problems?*

Smaller questions to explore:

Use these smaller questions to guide you to answer the big picture question.

1. Punnett Squares are often used to calculate the probability of various traits, but how are Punnett Squares related to chromosomes of reproductive cells?
2. Relate both monohybrid and dihybrid crosses to the Law of Segregation, and Law of Independent assortment.
3. Explore the key vocabulary associated with Punnett Squares and the calculation of probability.
4. Complete the questions found in your workbooks.

How to answer and present your answer:

- You are to work in a small group of 2-3.
- Submit the answers on a regular piece of paper, and complete the questions from the workbooks for understanding check.

Assessment:

Completed write up of your big picture question (accuracy and thoroughness)	/10
List of vocabulary	/5
Group use of class time (cell phone usage? Everyone on board?)	/5
Workbook completion	/5
	/25