Mendel’s Experiment

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Section\_\_\_\_\_\_\_\_\_\_

Purpose: The experiment will simulate the F2 generation cross.

Materials: 2 tri-colored marbles, 2 white marbles, two bags

Procedure:

1. Place one white and one tri-colored marble in each bag.
2. Without looking, take one marble from each bag.
3. Record the results in the table below.
4. Repeat 9 times.
5. Answer the analysis questions.

Data

|  |  |  |  |
| --- | --- | --- | --- |
| Trial | Marble 1 | Marble 2 | Outcome |
| 1 |  |  | w/w w/t t/t |
| 2 |  |  | w/w w/t t/t |
| 3 |  |  | w/w w/t t/t |
| 4 |  |  | w/w w/t t/t |
| 5 |  |  | w/w w/t t/t |
| 6 |  |  | w/w w/t t/t |
| 7 |  |  | w/w w/t t/t |
| 8 |  |  | w/w w/t t/t |
| 9 |  |  | w/w w/t t/t |
| 10 |  |  | w/w w/t t/t |

Analysis

1. Complete the Punnett square. List the possible outcomes and the percentage

|  |  |  |
| --- | --- | --- |
|  | White | Tricolored |
| White |  |  |
| Tricolored |  |  |

1. Input the data from the results into the iSense project #1480. http://isenseproject.org/projects/1480
2. Group the data by trial number. Select the group’s data. View this group and then the total of the groups.
3. How closely did the group's data come to the expected?

1. Did any of the individual groups come up with the expected results?
2. How closely did the class totals come to the expected?
3. What does this say about expected results and larger test results?