**Outcome 2 Practice: Mendel’s Experiments**

**Name: Biology 12**

**Directions:** Use the tutorial video posted as well as your textbook on pages 263-266 to assist you in completing the following questions.

1. What is the difference between cross-pollination and self-pollination?
2. Explain what the P-Generation, F1- Generation and F2 – Generation are.
3. List the 7 characteristics Mendel used to study pea plants and state the two alleles each characteristic could express. Highlight the dominant alleles.
4. What is a purebred and why is it important that Mendel used pure-breads as his P-generation during his studies for each trait?
5. Explain what occurred with the offspring found in the F1 generation for any two pure-bread traits (describe the phenotypes produced).
6. Explain what occurred with the offspring found in the F2 generation of any two F1 plants pollinated (describe the phenotypes produced).
7. Diagram

   Description automatically generatedUsing the diagram of an F1 plant below, indicate what the possible alleles the P-generation could have had, make sure to think about dominant and recessive alleles and remember a parent may have more than one option.
8. Draw a picture of the F1 plant that would be produced from the P-generation described by the traits listed below. Remember you will need to refer to the dominant and recessive traits for Mendel’s experiments.
9. Table

   Description automatically generated b) Diagram

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