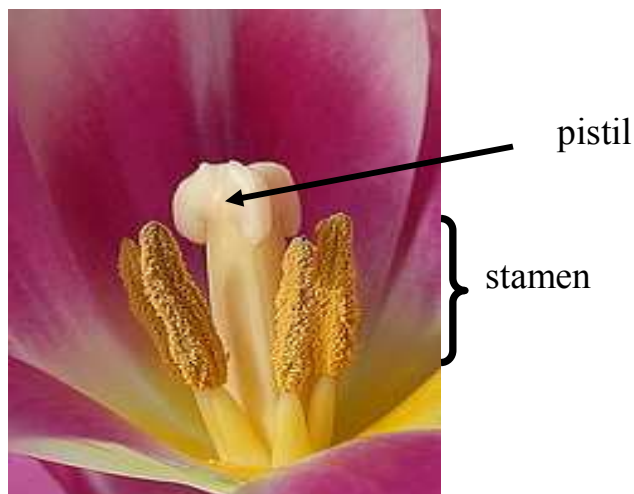


**SAMPLE SCIENCE LANGUAGE ASSESSMENT****Student:** \_\_\_\_\_**Teacher:** \_\_\_\_\_**Period:** \_\_\_\_\_**Genetics****Part I. Read the passage below and then answer the question.**

Around 1851, an Austrian priest named Gregor Mendel began studying how traits are passed on from parent to **offspring**. **Traits** are physical characteristics, such as height and eye color. This passing on of traits is called **heredity**. Because Mendel was the first to study the science of heredity, he is called the father of **genetics**.

Mendel used purebred pea plants in his heredity experiments. **Purebred** plants always produce offspring with the same form of a trait as the parent. In one of his experiments, he **cross-pollinated** pea plants. He put the **pollen** from the stamens of tall pea plants on the pistils of the flowers of the short pea plants. He discovered that none of the offspring plants were short. He called this first generation of offspring “F1.”

**Parts of a Plant**

(Source: [http://static.flickr.com/33/103185745\\_74acfa78c3\\_m.jpg](http://static.flickr.com/33/103185745_74acfa78c3_m.jpg))

**What principle of genetics did Mendel discover? Circle the best answer.**

- a) Cross-pollination of pea plants always results in tall plants.**
- b) Dominant traits express themselves when the dominant gene is present, and the recessive traits stay hidden.**
- c) Shortness in pea plants is the dominant allele.**
- d) A phenotype is invisible to the naked eye while a genotype is visible.**

**Part II. Write an answer to the following question.**

**Mark has blue eyes, but both his biological parents have brown eyes. Based on all the information you read about genetics, explain how this can happen. Write as much as you can. Use scientific terms.**

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