

Name _____

Date _____ Per _____ Asst _____



GREGOR MENDEL

1. The basic laws of heredity were formed by an Austrian monk named _____.
_____. Because his work laid the foundation to the study of
heredity, Mendel is referred to as _____.
2. Mendel based his laws on the study of pea plants because they _____
_____ and they have many _____.
3. Examples of traits that Mendel observed were _____,
_____, _____, and _____.
4. Mendel termed plants that produce offspring with traits exactly like parent plants to be
_____.
5. In Mendel's first experiment, Mendel crossed purebred short with purebred tall plants.
These plants were termed the _____ generation, or _____ generation.
6. The offspring produced by a cross of a purebred tall and short plant were all _____.
7. The generation of offspring produced by this first cross were called the _____
_____ generation, or the _____ generation. The word "filial" means
_____.
8. In Mendel's second experiment, he crossed two _____ plants produced from his
first experiment.
9. This second generation of plants are called the _____.

generation, or the _____ generation.

10. To his surprise, Mendel observed that the offspring of these two tall plants were both _____ and _____.
11. Mendel's first law is called the _____. It has three parts. They are:
 1. Plant traits are handed down through _____.
 2. Because offspring obtain hereditary factors from both parents, each plant must contain _____ factors for every _____.
 3. The factors in a pair _____, or _____ during the formation of sex cells, and each sperm or egg receives only one member of the pair.
12. Today, scientists refer to the "factors" that control traits as _____.
13. The different forms of a gene are called _____.
14. Alleles that hide or mask other alleles are said to be _____.
15. A _____, such as the short allele in pea plants, is masked or covered up whenever the dominant allele is present.
16. Purebred plants have two _____ genes for a particular trait. Another term for purebred is _____.
17. When both alleles for a trait are present, the plant is said to be a _____ for that trait. Hybrid alleles are also called _____.
18. Mendel's second law is the _____. It states that the gene pairs will separate _____ of each other in the production of sex cells.
19. Based on the alleles of the four traits shown in the frame, this plant has the color _____ seeds, the color _____ pods. In addition, it has a pod shape of _____.

_____, and a seed shape of _____.

20. According to Mendel's second law, is it possible for this plant to donate a yellow seed allele along with a green pod allele?