

8th Heredity/Genetics Study Guide

Name _____

Period _____

1. Who is the Father of Genetics? _____
2. What organism did he study, and what did he do to observe and discover information about traits and heredity?
3. What three things did Gregor Mendel discover because of his experiments?
4. **List** the traits he observed in plants?
5. **List** and **define** the 3 ways that genetic variation occurs.

Use the following letters to answer question 1-5. (B & b)

1. pure dominant genotype _____
2. Pure recessive genotype _____
3. hybrid genotype _____
4. heterozygous gene pair _____
5. homozygous gene pair _____
6. Dominant allele _____
7. recessive allele _____
8. Use a punnett square to cross these one heterozygous parent with one homozygous recessive parent parents: (use the letter E)
9. When a pure dominant trait is crossed with a pure recessive trait, which trait will express itself in all of the offspring? Dominant or recessive? Give an example
10. What type of genotype is necessary for a recessive trait to appear?
11. What is a gene? _____
12. **Complete** the missing information. Parent 1 - _____, Parent 2 - _____

b	
	Bb
bb	

14. **Complete** the punnett square, tell the genotype and phenotype for the offspring in percentages and give the ratio for each

R = round & r = wrinkled

Geno: _____

Pheno: _____

	R	r
R		
r		

15. **Different forms** of a gene are called _____.

*Please remember to study all old notes, study guides, and handouts from previous units!