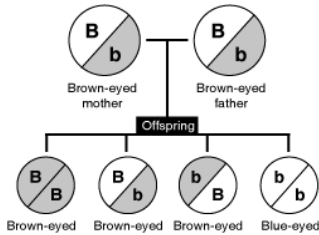


GCS Grade 7 Science Unit D CFA Punnett Squares, Genetic Variation, and Pedigrees

1. Which of the following influences a phenotype?
- always genotype alone
 - always genotype and environment
 - always environment alone
 - sometimes genotype and environment

2. Use the picture to answer the question.



A cross between two brown eyed parents is shown above. Which statement BEST explains why blue eyes appear only in 25% of offspring?

- It is a mutated trait.
 - It is a recessive trait.
 - It is a dominant trait.
 - It is an acquired trait.
3. Of sixteen rabbits just born, thirteen have brown fur and three have white fur. The trait for white fur is considered to be _____.
- recessive
 - bossy
 - stronger
 - dominant
4. Who is the Austrian monk whose work with pea plants helped him come up with a theory of heredity?
- Gregor Mendel
 - Charles Darwin
 - Robert Hooke
 - Rudolph Virchow

5. Which term correctly describes an individual with a pair of the same alleles for a trait?

- homologous
- heterologous
- homozygous
- heterozygous

6. Which of these terms describes the genetic information that is passed from parents to offspring?

- genotype
- phenotype
- phenocopy
- trait

7. Look at the Punnett square.

	A	a
a	Aa	aa
a	Aa	aa

If the two parents represented in the Punnett square have four offspring, what does the Punnett square tells you?

- Two of the offspring will definitely have the genotype Aa.
- It is more likely that two of them will have the genotype Aa than the genotype aa.
- There is a 50% chance for each of the four offspring to have the genotype Aa.
- It is less likely that two of them will have the genotype Aa than the genotype aa.

8. What are the possible genotypes of the offspring represented in this Punnett square?

	A	a
a	<u>Aa</u>	<u>aa</u>
a	<u>Aa</u>	<u>aa</u>

- AA and aa
- AA and Aa
- Aa and Aa
- Aa and aa

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9. An individual with two different alleles for a specific trait is said to be:

- A. homozygous
- B. heterozygous
- C. homogeneous
- D. heterogeneous

10. Genes have different versions. Which term is the name of a gene's version?

- A. genotype
- B. phenotype
- C. phenocopy
- D. allele

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Answer Key, Standard 7.L.2.1 and 7.L.2.2

1. B
2. B
3. A
4. A
5. C
6. A
7. C
8. D
9. B
10. D