# **Traits and Heredity Comprehension Check**

For questions 1-5, match each vocabulary term to the correct definition:

|  |  |
| --- | --- |
| 1. Trait | a. the process of receiving a trait that is passed down from parent to child |
| 2. Heredity | b. a physical or behavioral characteristic |
| 3. Inheritance | c. a form of a gene expressed as a trait that is easily seen because it hides the other |
| 4. Dominant allele | d. a form of a gene that is only expressed as a trait when the other is not present |
| 5. Recessive allele | e. the process by which traits are passed down from parents to offspring |

1. Trait –
2. Heredity –
3. Inheritance –
4. Dominant allele –
5. Recessive allele –
6. What information do genes carry and provide cells?
7. What is variation and why is it important when considering traits and heredity?
8. Why did agricultural scientists and farmers create hybrid plants and crops? What problem did this attempt to solve?
9. What are genetic mutations and how do they affect organisms?
10. Describe the debate about nature versus nurture.

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1. Trait – b
2. Heredity – e
3. Inheritance – a
4. Dominant allele – c
5. Recessive allele – d
6. What information do genes carry and provide cells?
   1. Genes carry information and instructions for how cells should grow and develop.
7. What is variation and why is it important when considering traits and heredity?
   1. Variation is the difference in characteristics within a group. It is important to have genetic variation because it is what makes each organism different than the others within the same species. Variation is what makes us unique.
8. Why did agricultural scientists and farmers create hybrid plants and crops? What problem did this attempt to solve?
   1. Agricultural scientists and farmers created hybrid plants and crops in order to improve the quality and quantity of their crops. Understanding hybrid plants can be helpful in combating hunger throughout the world.
9. What are genetic mutations and how do they affect organisms?
   1. Genetic mutations are permanent changes in the amount, structure, or pattern of DNA in cells. They can create too many or too few chromosomes within organisms and can even cause life cycle disruptions.
10. Describe the debate about nature versus nurture.
    1. Some debate the ideas of nature versus nurture when it comes to what affects organisms and their traits. Through experiments and observations, however, scientists have found that both nature (heredity) and nature (the environment) can affect the traits of organisms.