

**I. Fill in the Blank:** Write the correct answer from the word bank

chromosomes	DNA	genes	heredity	traits
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- \_\_\_\_\_ 1. the passing of traits from parents to offspring
- \_\_\_\_\_ 2. physical characteristics that you inherited from your parents
- \_\_\_\_\_ 3. small sections of DNA that determine many traits
- \_\_\_\_\_ 4. molecule that carries the chemical code that tells cells what to do
- \_\_\_\_\_ 5. contains DNA

genotype	hybrid	pedigree
phenotype	Punnett Square	purebred

- \_\_\_\_\_ 6. a chart that shows the genetic possibilities of a certain trait in the offspring of a specific pair of parents
- \_\_\_\_\_ 7. a chart that traces a trait through generations of family members
- \_\_\_\_\_ 8. plants that show the same trait for many generations when pollinated naturally
- \_\_\_\_\_ 9. a plant produced by crossing purebred parent plants that each have different forms of the same trait
- \_\_\_\_\_ 10. the physical appearance of an organism
- \_\_\_\_\_ 11. the arrangement of genes within an organism

## II. Short answer:

12. An example of genetic engineering in \_\_\_\_\_ is using bacteria to produce insulin for diabetics.
13. An example of genetic engineering of \_\_\_\_\_ is adding genes to cause them to taste bad to harmful insects.
14. An example of genetic engineering of \_\_\_\_\_ is adding genes to cause them to grow larger and faster with fewer diseases.

## III. True – False: Write “T” for True or “F” for False.

- \_\_\_\_\_ 15. All organisms have the same DNA pattern.
- \_\_\_\_\_ 16. The shape of a DNA molecule is called a double helix.
- \_\_\_\_\_ 17. Watson and Wilkins discovered the structure of DNA.
- \_\_\_\_\_ 18. Within the organism, every cell has the same DNA pattern.

## IV. Complete the Statement: Circle the correct term

19. (Codominance / Incomplete dominance) occurs when genes for a trait blend together.
20. A (dominant trait / recessive trait) is a characteristic that is shown in the hybrid generation.
21. (Reginald Punnett / Gregor Mendel) experimented with pea plants to study how traits were passed on from generation to generation.
22. In Mendel’s experiments, the P generation refers to purebred (offspring / parent plants).
23. (Genetic engineering / A genetic disease) is not contagious but is inherited as it is passed from parent to child.
24. (Genetic engineering / A genetic disease) involves changing a gene in an organism or moving a gene from one organism to another.