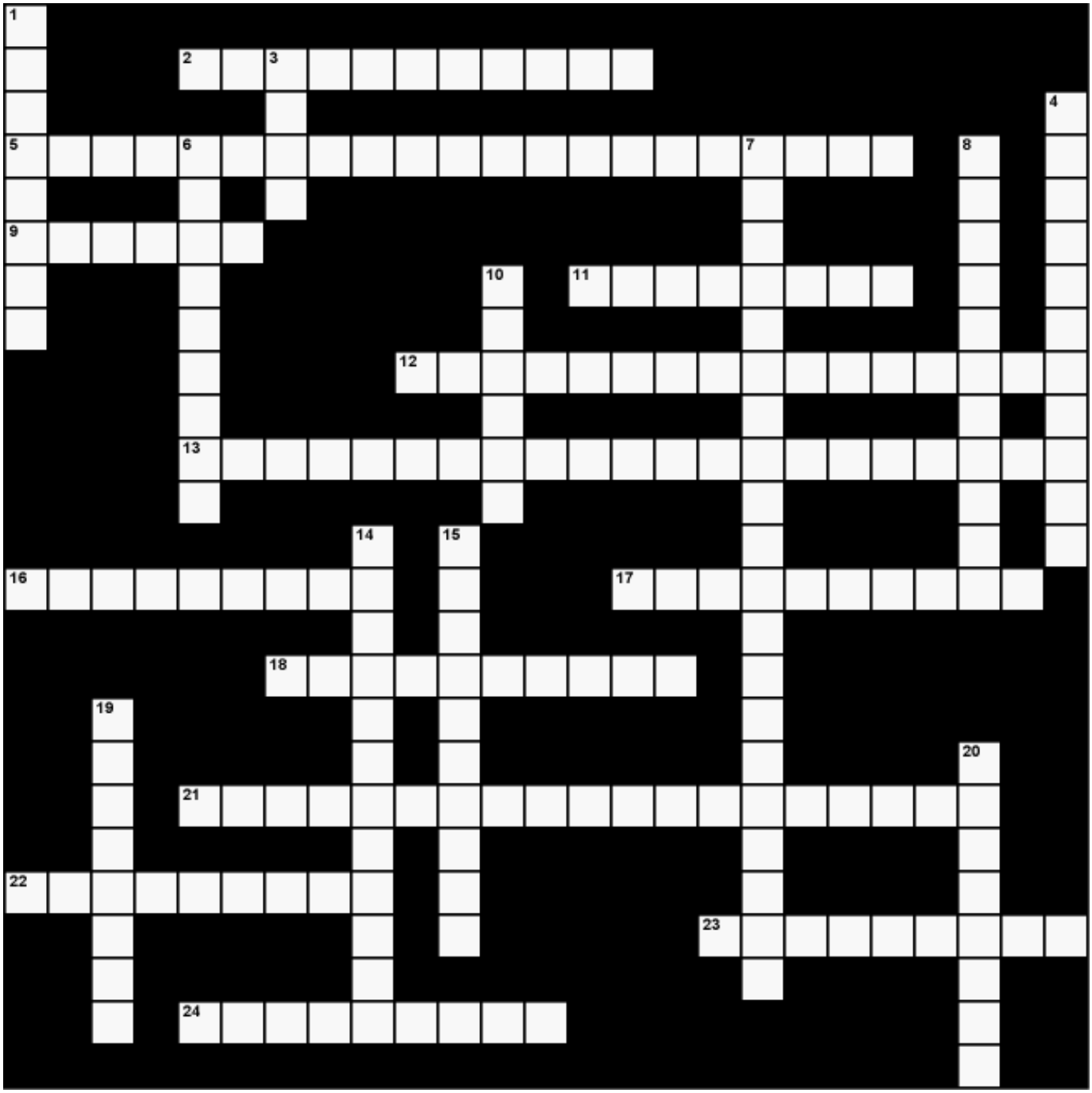
CROSSWORD CHALLENGE

Be the first to win: The first three people to fax a correctly completed crossword to 301-634-7079 (attention: Kenna Mills Shaw) will receive a free *AJHG* T-shirt. Please be certain to include your name and e-mail address in your fax.



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Across

2. Mendel's principle of genetic inheritance stating that, for any particular trait, the pair of genes of each parent separate and only one gene from each parent passes on to an offspring.
5. Mendel's principle of genetic inheritance stating that different pairs of genes are passed to offspring independently so that new combinations of genes, present in neither parent, are possible.
9. An alternate form of the same gene.
11. The genetic makeup of an individual for a trait or for all of his/her inherited traits—not the observable or detectable characteristics.
12. An inheritance pattern in which a gene will have a different effect depending on the gender of the parent from whom it is inherited.
13. Genes whose effect does not normally occur unless certain environmental factors are present.
16. The observable or detectable characteristics of an individual organism; the detectable expression of a genotype.
17. Genes that are inherited by both men and women but are normally only expressed in the phenotype of one of them.
18. The inheritance pattern in which a single allele is responsible for a variety of traits.
21. The term for a genotype in which there are two recessive alleles.
22. Genes that can alter how certain other genes are expressed in the phenotype.
23. Genes that can either initiate or block the expression of other genes.
24. The general term for an allele that is masked in the phenotype by the presence of another allele.

Down

1. The general term for an allele that masks the presence of another allele in the phenotype

3. A unit of inheritance usually occurring at a specific location on a chromosome.
4. Twins that come from the same fertilized egg
6. A trait that is determined by the combined effect of more than one gene.
7. An inheritance pattern in which a gene has more than two alleles.
8. The inheritance pattern in which two different alleles for a trait are expressed unblended in the phenotype of heterozygous individuals.
10. He acquired his understanding of genetics mostly through pea plant breeding experiments.
14. A genotype consisting of two different alleles of a gene for a particular trait.
15. A genotype consisting of two identical alleles of a gene for a particular trait.
19. A theory that inherited traits blend from generation to generation. Most of the leading scientists in the 19th century accepted it. However, Gregor Mendel proved that it was not correct.
20. The study of gene structure and action and the patterns of inheritance of traits from parent to offspring.

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