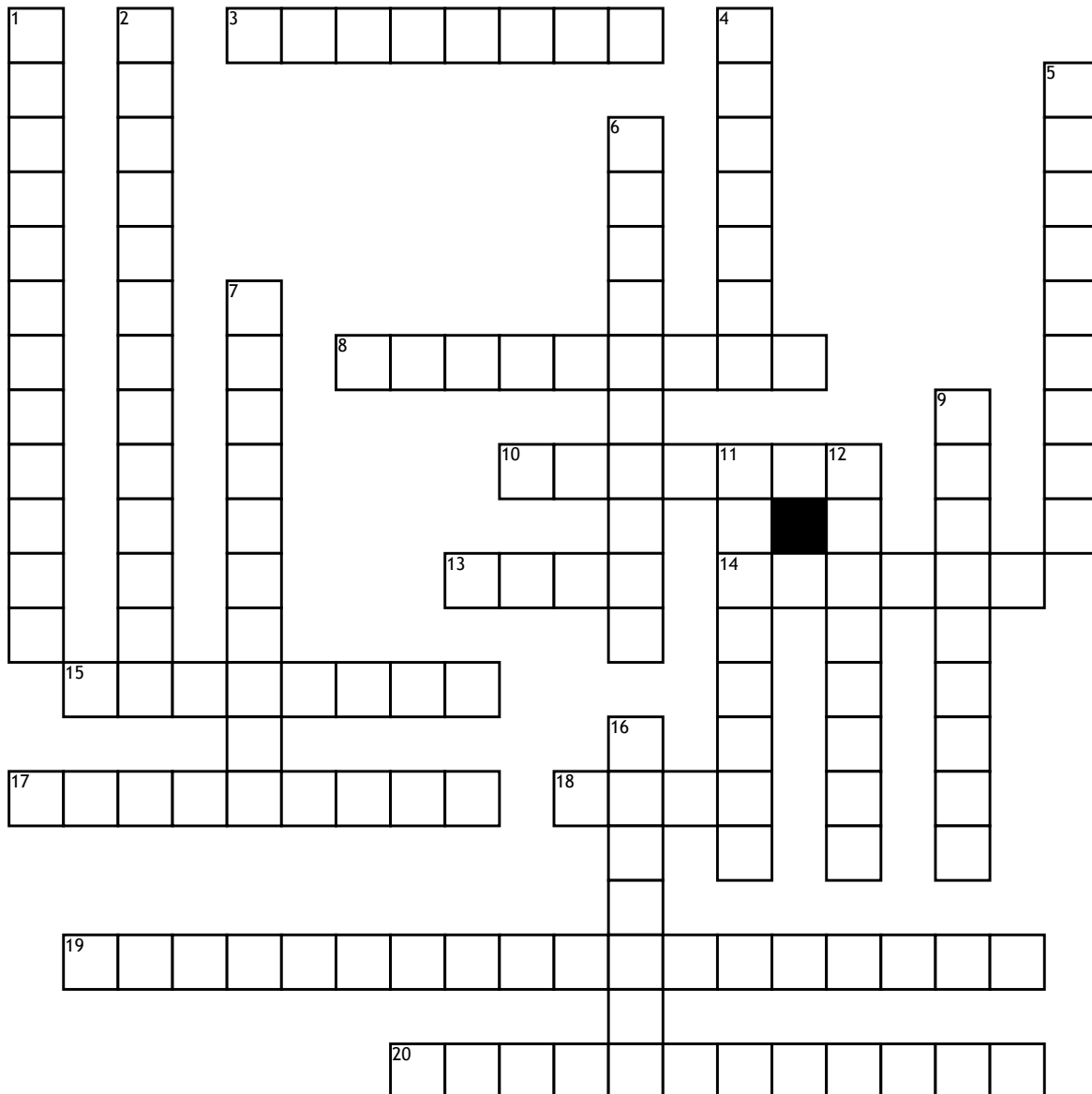


# Chapter 4



## Across

3. A diagram that shows traits or diseases passed through generations  
 8. A type of trait (can be recessive or dominant) that has nothing to do with gender or x and y chromosomes  
 10. The individual that the pedigree is concerning  
 13. The basic physical and functional unit of all heredity  
 14. Pedigree- circle  
 15. An individual's collection of genes (Rr, ss, LL)  
 17. A trait that will only be appearant in the offspring if both parent contribute it  
 18. Pedigree- square

19. Genetic disorders resulting from mutations in \_\_\_\_\_ are maternally inherited  
 20. Having one of each allele

## Down

1. it is best to be \_\_\_\_\_ because then you won't have two recessive alleles and have sickle cell, but you also won't have two dominant alleles and be more likely to have malaria  
 2. A grid showing the genotype of two parents and the possible genotypes of their offsprings  
 4. There is less sickle cell in the US because we do not have misquitos that transmit \_\_\_\_\_.

5. An individual's observable traits  
 6. Thread-like structures that are made up of protein and a single molecule of DNA  
 7. Having two of the same alleles  
 9. A trait associated with a gene that is carried by a make or female parent (passed down by x and y chromosomes)  
 11. Pedigree- shaded in (the individual is \_\_\_\_\_)  
 12. A trait that will appear in the offspring if at least one parent contributes it  
 16. Pedigree- half shaded in (the individual is a(n) \_\_\_\_\_)