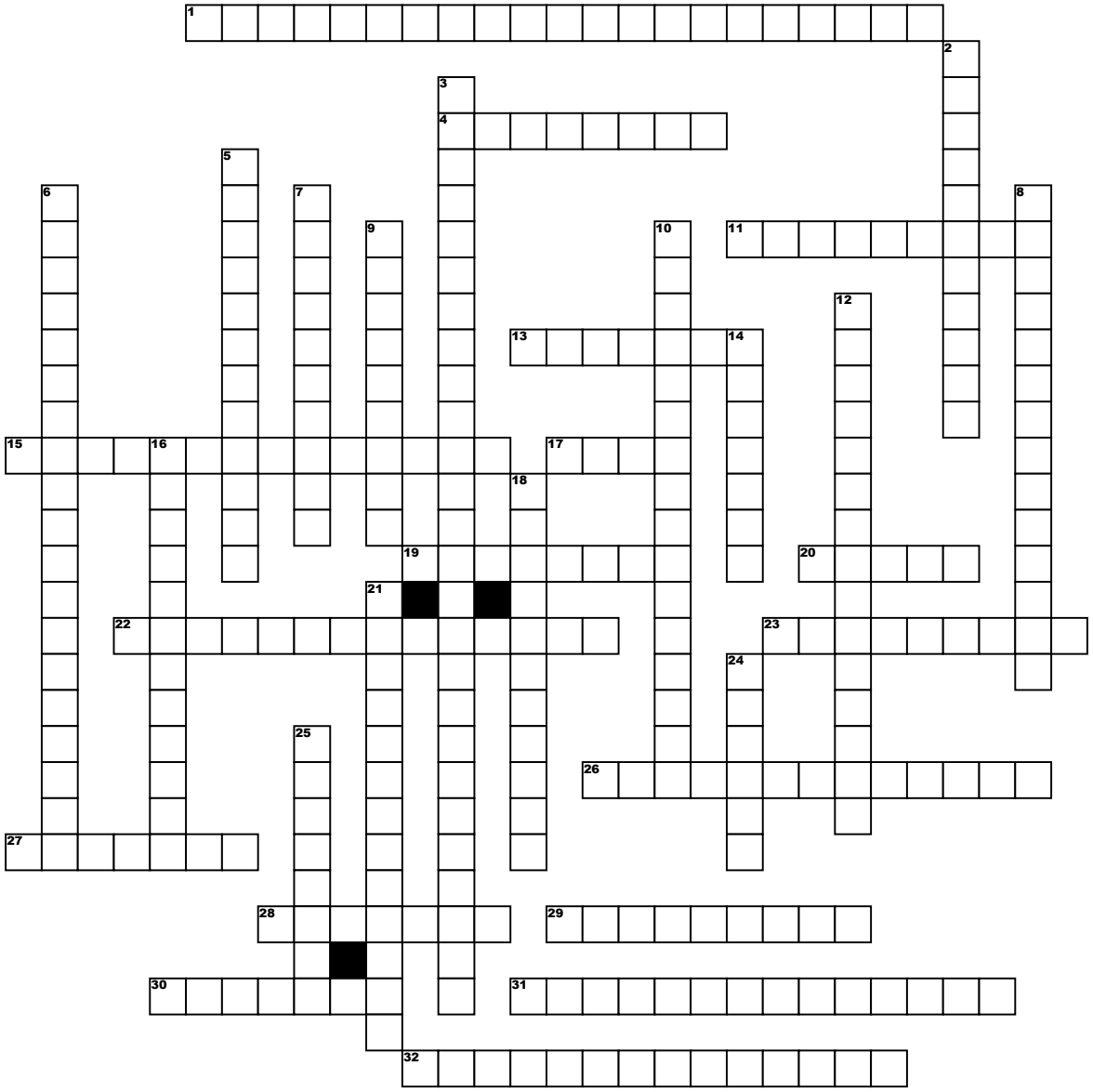
Name: _____ Date: _____ Period: _____

Genetics



Across

1. chromosome pairs (one from each parent) that are similar in length, gene position, and centromere location.

4. any chromosome that is not a sex chromosome.

11. relating to or denoting heritable characteristics controlled by genes that are expressed in offspring only when inherited from both parents, i.e., when not masked by a dominant characteristic inherited from one parent.

13. having a single set of unpaired chromosomes.

15. a chromosome that differs from an ordinary autosome in form, size, and behavior.

17. a unit of heredity that is transferred from a parent to offspring and is held to determine some characteristic of the offspring

19. the set of genes in our DNA which is responsible for a particular trait

20. a feature of an organism

22. when there is wide variation in the trait.

23. The recorded ancestry, especially upper class ancestry, of a person or family

26. a graphical representation of the possible genotypes of an offspring arising from a particular cross or breeding event

27. the process by which one diploid eukaryotic cell divides to generate four haploid cells often called gametes

28. a person or other organism that has inherited a recessive allele for a genetic trait or mutation but usually does not display that trait or show symptoms of the disease

29. The physical appearance or biochemical characteristic of an organism as a result of the interaction of its genotype and the environment

30. the cells used during sexual reproduction to produce a new individual organism or zygote

31. The tendency of DNA sequences that are close together on a chromosome

32. the tendency of DNA sequences that are close together on a chromosome to be inherited together during the meiosis phase of sexual reproduction

Down

2. a form of dominance wherein the alleles of a gene pair in a heterozygote are fully expressed

3. the alleles of two (or more) different genes get sorted into gametes independently of one another

5. the exchange of genetic material between non-sister chromatids of homologous chromosomes during meiosis

6. a form of intermediate inheritance in which one allele for a specific trait is not completely expressed over its paired allele. This results in a third phenotype in which the expressed physical trait is a combination of the phenotypes of both alleles

7. a particular gene that has identical alleles on both homologous chromosomes. It is referred to by two capital letters

8. maternally inherited from carrier mothers or from an affected father.

9. a genetic cross between a homozygous recessive individual and a corresponding suspected heterozygote to determine the genotype of the latter.

10. he principles that govern heredity were discovered by a monk named Gregor Mendel in the 1860's. One of these principles

12. a breeding experiment between P generation (parental generation) organisms that differ in a single given trait

14. Having two sets of chromosomes or double the haploid number of chromosomes in the germ cell

16. if they are different from one another, they are

18. used to measure the chances or likelihood of an event to occur,

21. a breeding experiment between P generation (parental generation) organisms that differ in two traits

24. one of the possible forms of a gene

25. An allele or a gene that is expressed in an organism's phenotype, masking the effect of the recessive allele or gene when presen