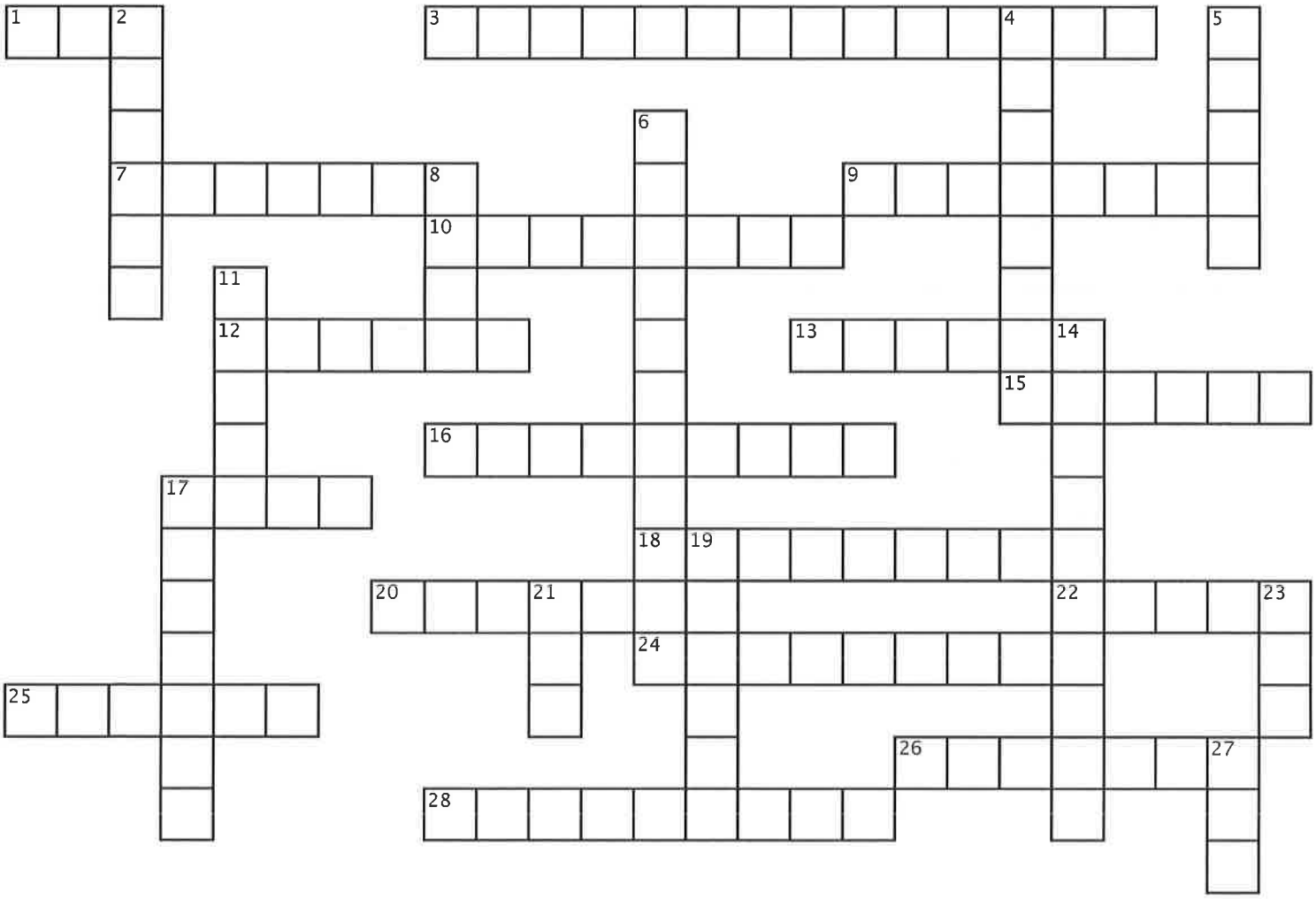
Chapter 13 & 14: Human Molecular Genetics & Genetic Engineering

Ch 13-1, 13-2, 14-3

Name_____Period____

etc...



Across

1. Scientists working on the Human Genome Project were surprised to find that relatively ___ genes make up the human genome.
3. DNA ___ analyzes sections of DNA that have little or no known function but vary widely among individuals.
7. Cloing raises serious ___ issues.
9. The Human Genome Project is an attempt to ___ all human DNA.
10. Biotechnology is changing the way we ___ with the living world.
12. Polyploid plants are often ___ and stronger than their diploid counterparts.
13. In gene therapy, an ___ or faulty gene is replaced by a normal, working gene.
15. Transgenic livestock have been produced with extra copies of ___hormone genes, and grow faster than ordinary animals.

Down

2. As biologists gain the more and more ability to manipulate life, society will need to learn to use ___ the tools that biologists have given it.
4. Breeders can increase the genetic variation in a population by ___ mutations.
5. In cloning , the egg cell with haploid nucleus removed is ___ with a diploid cell from another adult.
6. For reasons that are not clear, plants are much better at tolerating extra sets of ___.
8. The goal of Biology is to gain a better understanding of the nature of ___.
11. Member of a population of genetically identical cells.
14. A large percentage of soybeans and corn grown in the US is genetically modified, or ___.
17. The ___ potato was developed through selective breeding to resist diseases.

Across

16. A risk of inbreeding is that when crossing genetically similar individuals, it is more likely that you might bring together 2 ___ alleles for a genetic defect.
17. Hybridization crosses individuals with dissimilar traits to bring to gether the ___ of both organisms.
18. The ultimate source of genetic variability is ___.
20. 2 prospective parents can test for the presence of recessive ___ in their DNA to find out how much risk there is of passing on a genetic disease like cystic fibrosis.
22. Transgenic organisms contain ___ from other organisms.
24. The purpose of ___ breeding is to bring pass desired traits on the the next generation of organisms.
25. There are many breeds of dogs because many dogs have had their breeding controlled by ___.
26. To maintain the __ characteristics of a line of organisms, breeders must use the technique of inbreeding.
28. Plants with many sets of chromosomes, created by humans, are called ___.

Down

19. Treating organisms with radiation or chemicals increases the chances of producing a ___ mutant.
21. To clone an animal, the nucleus of an ___ cell is removed.
23. You are carrying about ___ billion base pairs in your DNA.
27. Mutations are inheritable changes in ___.