

SELF-TEST

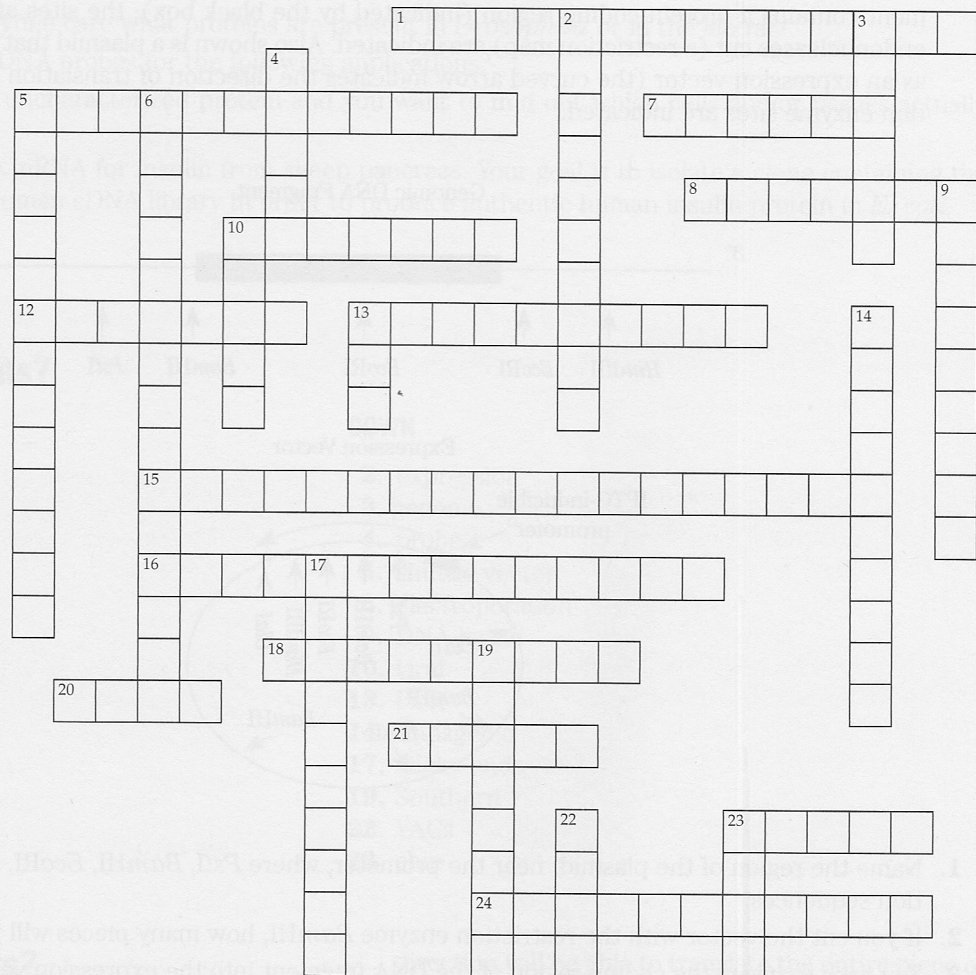
Do You Know the Terms?

ACROSS

1. Vectors of choice for medium-size DNA fragments.
5. One approach to _____ - _____ mutagenesis is to use an oligonucleotide primer containing an altered base for the synthesis of a duplex DNA.
7. The new, improved *product* of two fused genes is a _____ protein.
8. Small, circular, extrachromosomal DNA molecule.
10. Viral _____ are often modified retroviruses.
12. A genomic _____ contains more information than its largest "homolog" at any university.
13. Synthetic DNA fragment with recognition sequences for several restriction endonucleases.
15. These cleave DNA at specific base sequences; the scalpels of molecular biology. (2 words)
16. In bacteria, event induced by a cold, calcium chloride bath followed by heat shock or a strong jolt of electricity.
18. Natural genetic engineer in plants. (2 words)
20. Synthetic DNA, complementary in sequence to an RNA template. (abbr.)
21. Describes ends of DNA fragments that have no overhang.
23. To _____ or not to _____ is no longer the question; everyone in biochemistry is doing it! (Hint: to make an identical copy of an organism, a cell, or a DNA segment.) (1 word)
24. Describes composite DNA molecules containing DNA from two or more species.

DOWN

2. A self-replicating DNA plasmid that contains an inducible promoter and a polylinker is called a(n) _____ vector.
3. Contains all the genetic information to make an organism.
4. Radioactive DNA fragment that can ferret out and bind to specific DNA sequences.
5. Self-replicating piece of DNA that is capable of surviving in both *E. coli* and *S. cerevisiae*. (2 words)
6. Shocking technique that makes cells transiently permeable to DNA.



9. It joins DNA strands; molecular "glue." (2 words)
10. _____ vectors are the equivalent of a molecular "syringe."
13. Gene amplification technique that relies on the activity of a heat-stable polymerase (*TaqI*) isolated from hot-spring bacteria. (abbr.)
14. The fluorescent zebrafish in Figure 9-33 is an example of a _____ animal.
17. Restriction endonucleases that make staggered cuts produce _____. (2 words)
19. Following electrophoresis, proteins can be identified using antibodies in a Western blot, mRNA can be identified using DNA probes in a Northern blot, and DNA fragments can be identified using DNA probes in a _____ blot.
22. Used for cloning genomic DNA, these vectors are actually unstable when they contain inserts of less than 100,000 bp.
23. Although it's not the "micro" variety used in computers, this "DNA" version also contains an enormous amount of information.