

BIOL 100 – Final

Worksheet for Chapter 12 – Control of Gene Expression

1. _____ is the turning off and on of genes.
2. What does the term "gene expression" mean?
3. In prokaryotes, a _____ is a cluster of genes with related functions. It includes _____ and _____.
4. The _____ is the start sequence where the RNA polymerase binds.
5. The _____ is the start point for the binding of RNA polymerase to the DNA molecule.
6. To stop gene expression, a _____ binds to the _____ (operator), blocking _____.
7. A _____ gene, located _____, codes for the repressor.
8. How does the *lac* operon work?
9. How does the *trp* operon work?
10. What is cellular differentiation?
11. Differentiated cells have _____ (more/less/the same number of) genes as undifferentiated cells.
12. A single cell can give rise to an entire new plant and a cell under can regenerate leg. (Name examples of plants that do so.)
13. _____ allows very long chromosomes to condense into cells.
14. In DNA packing, _____ winds several strands of _____ forming a string of beads that _____.
15. DNA packing _____ (increases/decreases) the expression of genes.