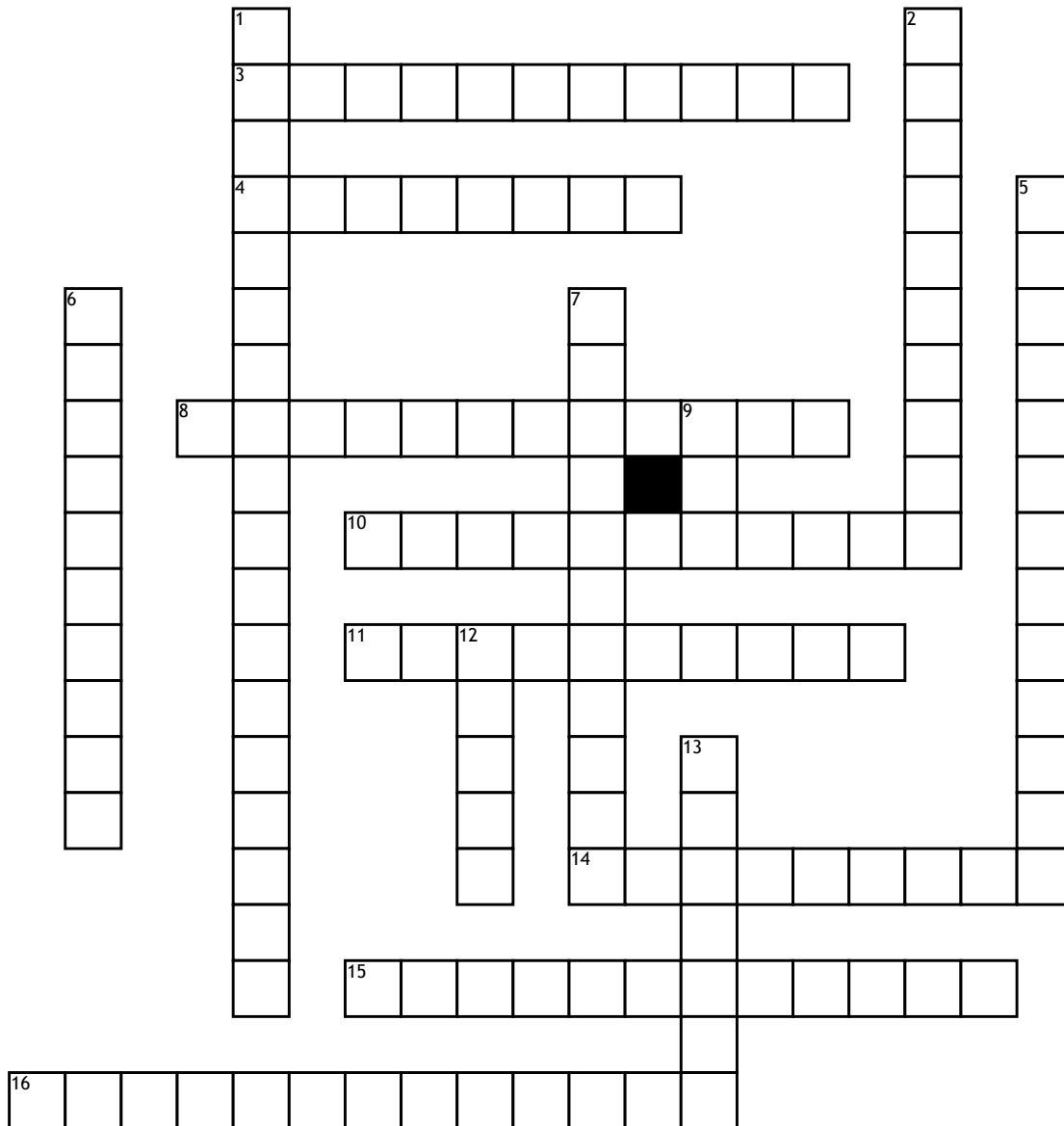


Name: \_\_\_\_\_

Date: \_\_\_\_\_

# from DNA to Proteins



## Across

3. process by which DNA is copied  
 4. change in the DNA sequence  
 8. RNA that is in the ribosome and guides the translation of mRNA into a protein; also used as a molecular clock  
 10. process by which mRNA is decoded and a protein is produced  
 11. monomer that forms DNA and has a phosphate group, a sugar, and a nitrogen containing base  
 14. set of 3 nucleotides in the tRNA molecule that binds to a complementary mRNA codon during translation

15. form of RNA that carries genetic information from the nucleus to the cytoplasm, where it serves as a template for protein synthesis

16. mutation that involves a substitution of only one nucleotide

## Down

1. mutation that involves the insertion or deletion of a nucleotide in the DNA sequence  
 2. codon that signals the ribosomes to stop translation  
 5. process of copying a nucleotide sequence of DNA to form a complementary strand of mRNA

6. codon that signals to ribosomes to begin translation

7. form of RNA that brings amino acids to ribosomes during protein synthesis

9. nucleic acid molecule that allows for the transmission of genetic information and protein syntheses

12. sequence of 3 nucleotides that codes for one amino acid

13. agent that can induce or increase the frequency of mutation in organisms