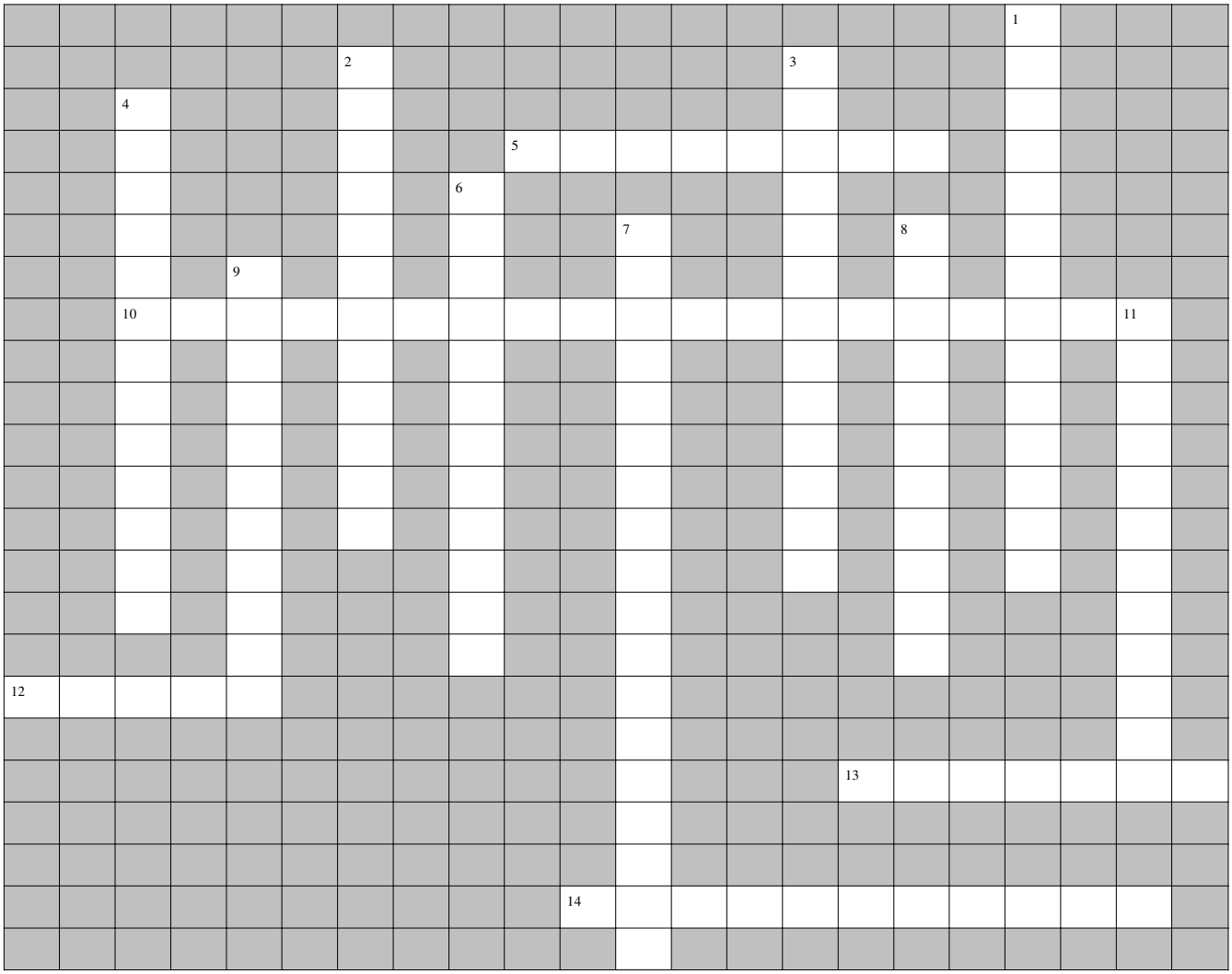
BIOLOGY: DNA and Genes



ACROSS

5 Any change or random error in a DNA sequence.

10 Mutation that occurs at the chromosome level resulting in changes in the gene distribution to gametes during meiosis; caused when parts of chromosomes break off or rejoin incorrectly

12 Set of three nitrogen bases that represents an amino acid; order of nitrogen bases in mRNA determines the type and order of amino acids in a protein.

13 Any agent that can cause a change in DNA; includes high-energy radiation, chemicals, or high temperatures.

14 Shape of a DNA molecule formed when two twisted DNA strands are coiled into a springlike structure and held together by hydrogen bonds between the bases.

DOWN

1 Process in which chromosomal DNA is copied before mitosis or meiosis.

2 RNA that makes up the ribosomes; clamps onto mRNA and uses its information to assemble amino acids in the correct order.

3 Mutation in a DNA sequence; occurs from a change in a single base pair.

4 Process in the cell nucleus where enzymes make an RNA copy of a DNA strand.

5 RNA that transports information from DNA in the nucleus to the cell's cytoplasm.

7 Mutation that occurs when a single base is added or deleted from DNA; causes a shift in the reading of codons by one base.

8 RNA that transports amino acids to the ribosomes to be assembled into proteins.

9 Process of converting information in mRNA into a sequence of amino acids in a protein.

11 Carbon ring structure found in DNA or RNA that contains one or more atoms of nitrogen; includes adenine, guanine, cytosine, thymine, and uracil.