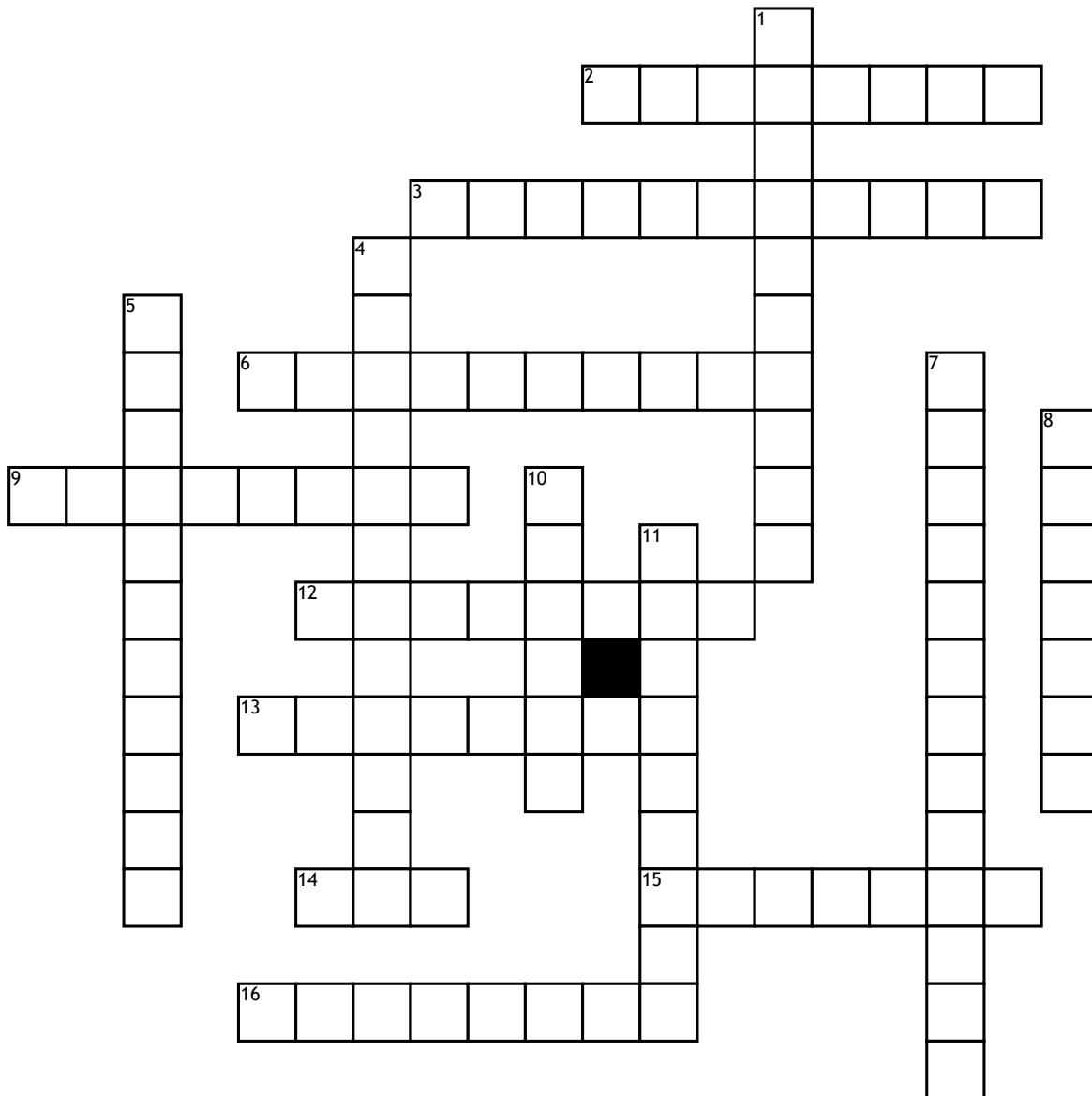


# Mutations



## Across

2. A 'silent' or X-chromosome completely made of tightly coiled heterochromatin?  
 3. Mutation in the absence of a known mutagen?  
 6. A mutation where a deletion/insertion of a nucleotide results in a change of the reading frame of the codon? (most likely to cause phenotypic changes)  
 9. A mutation in which a normal codon changes to a termination/stop codon?  
 12. Mutation that is inherited and occurs in the sperm/eggs?  
 13. A point mutation where in which a single nucleotide change results in a codon that codes for a different amino acid?

14. The normal variation in the number of copies (normally two) of a gene, or of sequences of DNA, in the genome of a specific individual?  
 15. Mutation caused by a known mutagen?  
 16. Molecular change in DNA by removal of a nucleotide from the DNA sequence?

## Down

1. Molecular change in DNA where a purine changes to a different purine OR a pyrimidine changes to a different pyrimidine (A->G;T->C)  
 4. Molecular change to the DNA where a purine (A,G) changes to a pyrimidine (T,C), or vice versa?

5. DNA segments that code for proteins that cut, move, and place the segment of DNA around the genome at random?  
 7. DNA when a pattern of one or more nucleotides is repeated and the repetitions are directly adjacent to one another?  
 8. Mutation that occurs in a bodily cell and is not passed down to the offspring?  
 10. Mutation that results in no change or effect to the phenotype?  
 11. Molecular change in DNA by addition of a nucleotide into the DNA sequence?