Chapter 2 Vocab Review NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  | **Definition** | **Diagrams, analogies, questions, or notes** |
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| **DNA** | Deoxyribonucleic acid (the blueprint for life) |  |
| **Nucleotide** | A base (A/T/G/C) on a sugar-phosphate (the building blocks of DNA) |  |
| **Chromosome** | A DNA molecule wrapped around proteins (bundled into a sausage shape) |  |
| **Gene** | Sections of DNA (like books on a shelf) with instructions to build proteins |  |
| **Homologous chromosomes** | Chromosomes with the same genes |  |
| **Mitosis** | How a cell makes copies of itself (by dividing into two) |  |
| **Gametes** | Cells with only one copy of each chromosome (also known as sex cells) |  |
| **Meiosis** | How gametes are produced |  |
| **Fertilisation** | Two gametes join to make new cells containing information from both |  |
| **Offspring** | The new plant or animal produced from parents (e.g. children) |  |
| **Traits** | Characteristics that are passed from parents to offspring |  |
| **Alleles** | The different versions of a gene |  |
| **Dominant** | A trait that will be shown even if the other chromosome has a different allele |  |
| **Recessive** | A trait that will stay hidden if the other chromosome has a dominant allele |  |
| **Genetic cross** | Offspring from parents which had different traits from each other |  |
| **Homozygous** | Has the same allele on both chromosomes |  |
| **Heterozygous** | Has a different allele on each chromosome |  |
| **Genotypes** | The genetic information carried by an individual |  |
| **Phenotype** | The traits shown (observed) in an individual |  |
| **Punnett square** | A method for predicting the possible offspring and the chance for each |  |
| **Sex-linked gene** | A gene on an X or Y chromosome |  |
| **Mutation** | Any change to the DNA sequence |  |
| **Gene therapy** | Changing a person’s DNA to fix genetic disorders |  |
| **Genetic engineering** | Changing DNA to add or improve traits (also known as genetic modification) |  |
| **Genetic testing** | Reading some of a person’s genes to find ancestors or check for disorders |  |
| **Bioinformatics** | Using computers to understand and use large amounts of genetic information |  |