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VOCABULARY ASSIGNMENT: Look up each vocabulary term below and write-out the definition. You can use the textbook's Glossary, or you might need to construct a definition from the reading.

Textbook Section C4.1: LIVING THINGS INHERIT TRAITS IN PATTERNS (Pages C101 - C107)

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| Sexual Reproduction | A cell containing genetic material from the mother and a cell containing genetic information from the father combine into a completely new cell which becomes the offspring. A type of reproduction in which male and female reproductive cells combine to form offspring with genetic material from both cells. |
| Inherited Traits | Traits that are passed genetically from the parents to the offspring. Example: Eye color, blood type, the shape of your ears. |
| Acquired Traits | Traits that are acquired or learned by living in the world (<u>not</u> passed to the offspring genetically). Examples: Suntanned skin, dyed hair, knowing how to read, playing an instrument. |
| Heredity | The passing of genes from parents to offspring; the genes are expressed in the traits of the offspring. |
| Genes | The basic unit of heredity that consists of a segment of DNA on a chromosome. It occupies a specific location on both chromosomes in a pair. |
| Homolog | The chromosomes in a pair; each is a homolog. |
| Alleles | An alternate form of a gene for a specific trait or gene product. These are either dominant or recessive. |
| XX Chromosome Pair | Produces FEMALE offspring. |
| XY Chromosome Pair | Produces MALE offspring. |
| Phenotype | The observable characteristics or traits of an organism. The "physical feature" of an organism; what it looks like. |
| Genotype | The genetic makeup of an organism; all the genes that an organism has. |
| Dominant | A term that describes the allele that determines the phenotype of an individual organism when two different copies are present in the genotype. |
| Recessive | A term that describes an allele that is not expressed when combined with a dominant form of the gene. |
| Gregor Mendel | An Austrian monk from the mid-1800's who investigated the inheritance traits among the pea plants in his garden. He concluded through his experiments that each plant must have two factors for each possible trait, one factor from each parent. (What he called "factors" we now call "genes" and "alleles.") |

Textbook Section C4.2: PATTERNS OF HEREDITY CAN BE PREDICTED (Pages C110 - C115)

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| Punnett Square | A chart used to show all the ways genes from two parents can combine and be passed to offspring; used to predict all genotypes that are possible. |
| Probability | The likelihood or chance that a specific outcome will occur out of a total number of outcomes. |
| Ratio | A comparison between two quantities, often written with a colon, as 3:4 (three out of four). |
| Percentage | A ratio that states the number of times an outcome is likely to occur out of a possible 100 times. |