The University of Texas at Austin
UT High School

070716

Biology A
Unit 5 Glossary

Term	Definition
anaphase	a phase in mitosis in which the chromosomes move away toward opposite poles (Unit 5, Lesson 2)
interphase	the period between cell division where the cell grows and matures. This phase is divided into three distinct phase: G1, S and G2. (Unit 5, Lesson 2)
cell cycle	the cycle a body cell goes through during its life. This includes growth phases and mitosis. The diagram shows the different stages of this cycle. (Unit 5, Lesson 2)
cell differentiation	Tthe process by which cells become specialized (Unit 5, Lesson 4)
Chargaff's Rule	%Adenine (A) = %Thymine (T), %Cytosine(C)= %Guanine(G). (Unit 5, Lesson 1)
cytokinesis	completely divides the cell into two cells (Unit 5, Lesson 2)
DNA	the double-helix-shaped nucleic acid that contains the genetic information of an organism. (Unit 5, Lesson 1)
DNA polymerase	an enzyme that builds new DNA strands by forming covalent bonds between complimentary nucleotides. (Unit 5, Lesson 2)
double helix	the twisted ladder shape of DNA (Unit 5, Lesson 1)
enzyme	a protein that acts as a biological catalyst and speeds up chemical reactions. (Unit 5, Lesson 2)
helicase	the enzyme that separates the DNA into two individual strands by breaking the hydrogen bonds between the nitrogen bases. (Unit 5, Lesson 2)
ligase	an enzyme that rezips the DNA molecule by forming hydrogen bond between base pairs. (Unit 5, Lesson 2)
metaphase	a phase in mitosis in which the chromosomes line up along the middle of the cell. (Unit 5, Lesson 2)
mitosis	process of cell division where an exact copy of a cell is made. This has five phases: interphase, prophase, metaphase, anaphase and telophase. (Unit 5, Lesson 2)
nucleotide	the basic unit of DNA and RNA, consisting of a nitrogen base, a sugar and a phosphate group. (Unit 5, Lesson 1)
prophase	replicated DNA condense into duplicated chromosomes and centrioles move to opposite poles. The nuclear membrane being to disintegrate and the centrioles begin to form spindle fibers. (Unit 5, Lesson 2)

RNA primase	adds short RNA sequence as a primer for the new DNA strand (Unit 5, Lesson 2)
transcription factors	DNA binding protein affects how genes are expressed in a cell by directing which genes will be turned on or turned off (Unit 5, Lesson 4)
semiconservative replication	a type of DNA replication where the resulting DNA molecules each contain one new DNA strand and one parent DNA strand. (Unit 5, Lesson 2)
regulatory proteins	proteins that sends a signal directly to the cell to speed up or slow down the cell cycle (Unit 5, Lesson 3)
telophase	nuclear membrane begins to reform and the condensed chromosomes begins to untangle (Unit 5, Lesson 2)
cancer cells	divide uncontrollably because they no longer respond to signals that control mitosis. (Unit 5, Lesson 3)