

**Department: Science Course: Foundations Biology Instructor(s): Gaus, Vargas**

**Semester 1** *The Homewood-Flossmoor High School Course Scope & Sequence provides parents and students with a semester-long overview of each class that we offer. An instructor may alter a course's scope & sequence as needed. Students are responsible for keeping track of due dates and other pertinent course information in their H-F Student Planners. Parents, please contact your child's teacher by telephone or e-mail to clarify any questions you may have about the scope & sequence of a particular course.*

WEEK	STANDARDS	INSTRUCTIONAL CONTENT	ACTIVITIES, READINGS, LABS, AND/OR ASSIGNMENTS	MAJOR ASSESSMENTS	OTHER
WEEK #1	S.I.b.2 S.I.b.3 S.II.b.1	Science & Inquiry	Safety and Equipment Safety Contract	Safety Quiz Equipment Quiz	Reading Strategies- Predicting, Note Taking
WEEK #2	S.I.a.2 S.I.b.2 S.I.b.3 S.II.b.2 S.II.b.3	Science & Inquiry	Scientific Method Redi's Experiment PHSchool.com Web code cbp-1012	M&M Lab Design an Experiment	Reading Strategies- Predicting, Note Taking
WEEK #3	S.I.a.1 S.I.b.2 S.I.b.3 S.I.c.1 S.I.c.2 S.I.c.3 S.I.d.1 S.I.d.2 S.I.d.3 S.I.d.4	Science & Inquiry	Metric System Graphs	Metric Lab Graphing Activity	Reading Strategies- Predicting, Note Taking

	S.I.d.5 S.I.d.6				
WEEK #4	S.I.b.2 S.I.b.3 S.II.b.1	Science & Inquiry	Microscope Characteristics of Living Things	Microscope Lab What is Living Lab	Reading Strategies- Predicting, Note Taking
WEEK #5	S.I.b.2 S.I.b.3	Science & Inquiry	Hierarchy		Reading Strategies- Predicting, Note Taking
Week #6	S.I.b.2 S.I.b.3	Macromolecules Enzymes	Enzyme Lab		
WEEK #7	S.I.b.2 S.I.b.3	The Cell	The Cell Discovery and Theory Prokaryote v Eukaryotes	Cell Theory Timeline Prokaryotes and Eukarote Comparison	Reading Strategies- Predicting, Summarizing, Note Taking, Inferring
WEEK #8	S.I.b.2 S.I.b.3	The Cell	The Cell and How it Works Cell Structure and Function Plant Cells and Animal Cells	Cell Comparison Project Cell Structure Activity	Reading Strategies- Predicting, Summarizing, Note Taking, Inferring
WEEK #9	S.I.b.2 S.I.b.3	The Cell	Membrane Structure and Types Osmosis	Cell Doctor Activity Cell Membrane Activity and/or	Reading Strategies- Predicting, Summarizing.

			Diffusion	Lab	Note Taking, Inferring
WEEK #10	S.I.b.2 S.I.b.3	The Cell	Membrane Structure and Types Osmosis Diffusion	Osmosis Diffusion Lab Unit Exam	Reading Strategies- Predicting, Summarizing. Note Taking, Inferring
WEEK #11	S.I.b.2 S.I.b.3	Cellular Respiration & Photosynthesis	Overview ATP and How it's used	Photosynthesis Lab Absorption of Chlorophyll	Reading Strategies- Connecting, Predicting, Note Taking, Inferring
WEEK #12	S.I.b.2 S.I.b.3	Cellular Respiration & Photosynthesis	Active and Passive Transport Fermentation Glycolysis Fermentation: Alcoholic and Lactic Acid	Absorption of Chlorophyll Active Reading: Energy and Photosynthesis Unit Exam	Reading Strategies- Connecting, Predicting, Note Taking, Inferring
WEEK #13	S.I.b.2 S.I.b.3	DNA & Protein Synthesis	DNA Structure and Function Nucleotides Chromosomes, DNA Replication Structure of RNA	Genetic Code Problems	Reading Strategies- Connecting, Predicting, Note Taking, Inferring
WEEK #14	S.I.b.2 S.I.b.3	DNA &	Types of RNA RNA and Protein	Building a DNA Model	Reading Strategies-

		Protein Synthesis	Synthesis Transcription Translation Anticodons		Connecting, Predicting, Note Taking, Inferring Taking, Inferring
WEEK #15	S.I.b.2 S.I.b.3	Mitosis & Meiosis	Sexual and Asexual reproduction Cell Division Prokaryotes & Eukaryotes	Microscope Lab	Reading Strategies- Connecting, Questioning, Predicting, Note Taking, Inferring
WEEK #16	S.I.b.2 S.I.b.3	Mitosis & Meiosis	Cell Cycle Stages of Mitosis Cytokinesis Carcinomas	The Cell Cycle Online Mitosis	Reading Strategies- Connecting, Questioning, Predicting, Note Taking, Inferring
WEEK #17	S.I.b.2 S.I.b.3	Mitosis & Meiosis	Stages of Meiosis Crossing Over Karyotypes	Unit Exam	Reading Strategies- Connecting, Questioning, Predicting, Note Taking, Inferring
Week #18	S.I.b.2 S.I.b.3	Mendelian Genetics	Mendel's work Probability Homologous Chromosomes		Reading Strategies- Connecting, Questioning, Predicting, Note Taking,

					Inferring
WEEK #19 Final Exams					