Mansfield Independent School District

Biology

Year at a Glance

First Six-Weeks	Second Six-Weeks	Third Six-Weeks
• Ecology (10) • Biomes (4) • Cycles (2) • Biochemistry (10)	• Cellular structure and function (12) • Cellular transport (4) • Photosynthesis (4) • Cellular respiration (4)	• Cell Cycle (5) • Meiosis and sexual reproduction (4) • DNA , DNA Replication (6) • Protein Synthesis (9)
Fourth Six-Weeks	**Fifth Six-Weeks**	**Sixth-Six Weeks**
• Mutations (5) • Genetics (8) • Genetic engineering (4) • Evolution (10)	• Classification (8) • Plants/ System Interactions (8) • Animals/ System Interactions (8)	• EOC Review Days (10) • EOC -STAAR • Chemistry (15)

Ongoing: Safety and Scientific Method

BIOLOGY

Science Timetable

2013 - 2014

***The Biology curriculum timetable has been updated to reflect the End of Course Exam which will take place the second week of May. The entire biology curriculum will be taught by the beginning of May. The remaining time left in the last six weeks will be used for Chemistry introductions.**

1st Six Weeks

Number of Days	Topics	Concepts	TEKS
On going 1 day intro	Safety	Lab safety, equipment, lab safety gear, recycling	1A, 1B
On going 2 day intro	Scientific Method	Hypothesis, Scientific theory, Investigation, data collecting, interpreting, scientific tools, lab reports, Scientific research, Graphing, inferences on promotional products, History of scientist	2A-2H 3A-3F
10	Ecology	Relationships between organisms and their environment, energy flow between organisms and their environment	11B,11C,12A,12C
4	Biomes	7-9 biomes on earth	11B,11D 12B,12D,12F,
2	Cycles	Water, cycle, carbon cycle, nitrogen cycle	12E
10	Biochemistry	Macromolecules, enzymes, ph, Properties of water,	9A, 9C, 9D

2nd Six Weeks

Number of Days	Topics	Concepts	TEKS
12	Cellular structure and function	Prokaryotic and eukaryotic viruses, bacteria, cell organelles, cell function	1A, 4A, 4C, 5B,7G, 10C
4	Cellular transport	Homeostasis, transport of molecules, synthesis of new molecules, tonacity	4B
4	Photosynthesis	Photosynthesis, reactants and products	9B
4	cell respiration	Cellular respiration, reactants and products	9B

3rd Six Weeks

Number of Days	Topics	Concepts	TEKS
5	Cell Cycle	Mitosis, asexual reproduction, growth of organism, cancer, prokaryotic and eukaryotic cell reproduction	5A, 5D
4	Meiosis and sexual reproduction	Meiosis	6G
6	DNA Structure and DNA Replication	Components and roles of DNA, replication	6A,6B,5C
9	Protein synthesis	Transcription, translation	6C,6D

4th Six Weeks

Number of Days	Topics	Concepts	TEKS
5	Mutations	DNA mutation	6E
8	Genetics	Mendelian genetics, Punnett squares (monohybrid and dihybrid) non- mendelian genetics, karyotypes	6F
4	Genetic engineering	Viruses, DNA fingerprinting, genetic modifications and expressions, genome	4C,6H
10	Evolution	Fossil records, natural selection, variation, adaptation	7A-7F

5th Six Weeks

Number of Days	Topics	Concepts	TEKS
8	Classification	Taxonomy, levels of organization, including Kingdoms	8A-8C, 10C
8	Plants	Reproduction, interactions, functions of transport and response	10B
8	Animals	Body systems, internal feedback, homeostasis	10A,11A

6th Six Weeks

Number of Days	Topics	Concepts	TEKS
10	EOC Review Days	Review all concepts	ALL
15	Chemistry	Teach chemistry concepts on protons, neutrons, electrons, and isotopes.	C.6 (D) Use isotopic composition to calculate average atomic mass of an element