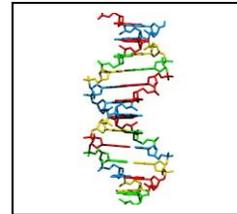
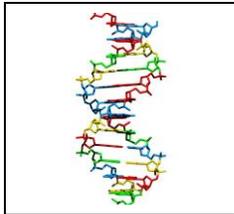


ODESSA SCIENCE DEPARTMENT BIOLOGY SYLLABUS

Textbook: Biology: Principles & Explorations
 Author: Johnson & Raven (Holt)

| <u>WEEK</u> | <u>UNIT</u> | <u>CONCEPTS</u> | <u>SUGGESTED READING</u> | <u>SUGGESTED HOMEWORK</u> | <u>EALR & GLE</u> |
|--|---|---|----------------------------|--|---|
| 1-3 | Course Intro Microscopes Measurements | Contracts, Safety, Sci Method, Life, Cells, Microscopes, Units | Chpt. 1 Pgs. 5-21 | Pg. 19-20 (1-21, 24) | 111-116-121-123 126-211-212-213 214-215-221-222 223-.311-312-313 |
| Introduction | | | | | |
| <u>EXAM 1: Week 1Q-W3</u> | | | | | |
| 4-6 | Cell Nature Cell Enviro Model Molecule | Cell Theory, History, Organelles, Plant vs Animal, Organic Mole- cules, Acid/Base, Solutions | Chpts. 2-3 Pgs. 5-66 | Pg. 49-51 (1-19, 22, 23) Pg. 69-71 (1-21,23) | 111-121-126-138 211 |
| | | | | | Microbiology I |
| <u>EXAM 2: Week 1Q-W6</u> | | | | | |
| 7-9 | Cell Energy Photosynthesis | Enzymes, Glycolysis, Krebs Cycle, Dark- Light Reactions, Electron Chain | Chpts. 4-5 Pgs. 74-138 | Pg. 89-91 (1-29, 32) Pg. 113-115 (1-22,26,27) | 111-121-122-126 127-211-138 |
| | | | | | Microbiology II |
| <u>EXAM 3: Week 1Q-W9 (end of 1st Quarter)</u> | | | | | |
| 10-12 | Genetics Alleles Punnett Squares Mutations | Characteristics Laws of Heredity Traits | Chpts. 6-9 Pgs. 118-200 | Pg. 135-137 (1-22,25,28) Pg. 159-161 (1-19, 23) Pg. 177-179 (1-24, 30) Pg. 197-199 (1-27, 32) | 111-116-121-126 127-211-311-312 324 |
| | | | | | Genetics I |
| <u>EXAM 4: Week 2Q-W3</u> | | | | | |
| 13-15 | INDEPENDENT STEM RESEARCH | | | | 211-212-213-214 215-221-222-223 224-225-311-312 313-322-323-324 |
| <u>2nd QUARTER RESEARCH PROJECT</u> | | | | | |
| <u>EXAM 5 in form of PAPER & POWERPOINT PRESENTATIONS: Week 2Q-W6</u> | | | | | |
| 16-18 | Mitosis/Meiosis DNA/RNA Replication, | Cell Division Protein Synth Transcription, Translation | Chpts. 6-9 Pgs. 118-200 | Pg. 135-137 (1-22,25,28) Pg. 159-161 (1-19, 23) Pg. 177-179 (1-24, 30) Pg. 197-199 (1-27, 32) | 111-116-121-126 127-211-311-312 324 |
| | | | | | Genetics II |
| <u>EXAM 6: Week 2Q-W9</u> | | | | | |

1st SEMESTER FINAL: Week 2Q-W9



ODESSA SCIENCE DEPARTMENT BIOLOGY SYLLABUS

| <u>WEEK</u> | <u>UNIT</u> | <u>CONCEPTS</u> | <u>SUGGESTED READING</u> | <u>SUGGESTED HOMEWORK</u> | <u>EALR & GLE</u> |
|-----------------------------------|--|---|--------------------------|---------------------------|---------------------------------------|
| 19-21 | Origin of Life | Models, Darwin, | Chpts. 11-14 | Pg.239-241 (1-22), 28 | 115-116-127-133 |
| | Evolution | Macro-Micro Evolution, | Pgs. 224-311 | Pg.267-269 (1-22), 28 | 134-135-139-211 |
| | Earth Life | Extinctions, Fossils, | | Pg.289-291 (1-27), 30 | |
| | Human Evol | Early Hominids | | Pg.309-311 (1-22), 27 | |
| <u>EXAM 7: Week 3Q-W3</u> | | | | | Evolution |
| 22-24 | Biomes | Diversity | Chpts. 15-18 | Pg.332-333 (1-16, 25) | 121-122-131-211 |
| | Ecology | Ecosystems | Pgs. 314-333 | Pg.355-356 (1-16, 27) | 212-311-312-313 |
| | Earth's Place | Niches, Zones, | Pgs. 336-356 | Pg.383-384 (1-17, 29) | 322-323-324 |
| | Earth's Systems | Earth / Human Activity | Pgs. 360-383 | Pg.407 (1-9, 22) | |
| <u>EXAM 8: Week 3Q-W6</u> | | | | | Ecology |
| 25-27 | Classify | Kingdom, Phylum, | Chpts. 19 | Pg.449-451 (1-18, 29) | 116-121-139-211 |
| | KPCOFGS | Class, Order, Family, | Pgs. 416-451 | | |
| | Bio-engineering Design | Genus, Species, Taxonomic Nomenclature | | | |
| | <u>EXAM 9: Week 3Q-W9 (end of 3rd Quarter)</u> | | | | |
| 28-30 | Revisit Ecology | Data Collection | OnLine Resources | | 121-122-131-211 |
| | Quantitative | Observer Bias | Outdoor Laboratory | | HS-ESS3 |
| | Qualitative | Technology in the Field | | | HS-LS2 |
| <u>EXAM 11: Week 4Q-W3</u> | | | | | Field Study |
| 31-33 | Reproduction | Hormones, Feed- | Chpts. 41-42 | Pg.986-987 (1-17, 21) | 116-121-122-128 |
| | Hormones | back, Glands, Male, | Pgs. 967-1011 | Pg.1010-1011 (1-17, 22) | 211 |
| | Endocrinology | Female, Cycles, STD | | | |
| <u>EXAM 10: Week 4Q-W6</u> | | | | | Human A & P : Reproduction |
| 34-36 | Immune System | Cell Types, | Chpt. 39 | Pg.934-935 (1-15, 25) | 121-122-126-128 |
| | Allergies | Transportation, | Pgs. 920-955 | | 211-311-322-323 |
| | HIV | Infection Rate | | | |
| <u>EXAM 12: Week 4Q-W9</u> | | | | | Human A & P : Immunology |

2nd SEMESTER FINAL: Week 4Q-W9

Biology: Grade 10, 1 Semester Credit

Biology studies life. This inquiry course will be an in depth study of the cell and its importance to all of life. Through student-driven research-based laboratory investigation microorganisms, invertebrates, and vertebrates characteristics and environments will be studied. Students investigate the genetics and relationships between various organisms, and finish with a comparison of human anatomy, physiology, ecology, and behavior with other species.