



Sturgeon Composite High School
Biology 20
COURSE OUTLINE



PREREQUISITE: Science 10 – minimum mark recommended 60%

TEXT: McGraw-Hill- Biology

COURSE MATERIALS: Three ring binder and Agenda book
Calculator
Recommend the purchase of The Key from the school store

GENERAL OBJECTIVES:

- To develop an understanding of the major ideas and principles that unifies the natural sciences.
- To develop an understanding of matter recycling and energy flow within the biosphere, and how this leads to a state of equilibrium.
- To develop an understanding of cellular matter and energy flow within the cell.
- To develop an understanding of matter and energy exchange within an ecosystem.
- To develop an understanding of matter and energy exchange within the human body.

COURSE CONTENT: Biology 20 consists of four units of study:

UNIT A: ENERGY AND MATTER EXCHANGE IN THE BIOSPHERE (20%)

- Biosphere
- Cycling of matter
- Balance and Flow of Energy and Matter

UNIT B: ECOSYSTEMS AND POPULATION CHANGE (30%)

- Ecosystems
- Biotic and Abiotic Factors
- Limiting Factors
- Binomial Nomenclature
- Evidence of Evolution
- Populations

UNIT C: PHOTOSYNTHESIS AND CELLULAR RESPIRATION (10%)

- Photosynthesis – Light Dependent and Independent reactions
- Cellular Respiration – Comparison of Aerobic and Anaerobic Respiration

UNIT D: HUMAN SYSTEMS (40%)

Structure and Function of the Main Systems:

- Circulatory and Motor – composition of blood, immune response, & muscle contraction
- Respiratory – gas exchange
- Digestive – chemical and physical digestion
- Excretory - renal function

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EVALUATION: *The final mark in Biology 20 will be based upon the following*

TERM WORK - consists of **60%**

- Unit exams = 36%
- Quizzes = 12%
- Assignments = 7%
- Labs = 5%

FINAL EXAM **40%**

- Cumulative exam of all course material = 40%

BEHAVIORAL EXPECTATIONS: As outlined in the Student Agenda and by the individual teacher.