Biology
Guidelines and Expectations
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THE MISSION OF DUBUQUE SENIOR HIGH SCHOOL IS TO PROVIDE A CLIMATE OF MUTUAL RESPECT AND SUPPORT WHERE ALL MAY DEVELOP THEIR INTELLECTUAL, CREATIVE, SOCIAL, AND PHYSICAL POTENTIAL.

Biology Academic Standards

1. **The Nature and Process of Science**- Students will illustrate that science is ongoing and inventive, that science models the real world and is based on verifiable evidence, and that scientific knowledge has historically changed as new evidence is found.
2. **Life and Environmental Sciences**- Students will demonstrate knowledge and understanding of the characteristics, structures, and functions of living things, the processes of life, and how living things interact with each other and their environment.
3. **Physical Science**- Students will demonstrate knowledge and understanding of the structure and properties of matter.
4. **Science, Technology, and Science Connections**- Students will use technology to study and investigate interrelationships among science, technology, and human activity and demonstrate knowledge and understanding of how scientific study, using technology, impacts life.

Course Description:

This course is designed for those students who desire a thorough background in basic biology and a strong basis for further science study. The course of study in Biology includes all the major themes essential to understanding life. This is often achieved through problem solving, laboratory experiences, and group activities. The text material provides the factual foundation necessary to understanding the principals of life discussed in the course. Alignment to the Iowa Core Curriculum: Understands and applies knowledge of: cells, classification, respiration, photosynthesis, plants, animals, genetics, evolution, and organ systems.

Iowa Core Standards:

- Essential Concept and/or Skill: Understand and apply knowledge of the cell.
- Essential Concept and/or Skill: Understand and apply knowledge of the molecular basis of heredity.
- Essential Concept and/or Skill: Understand and apply knowledge of biological evolution
- Essential Concept and/or Skill: Understand and apply knowledge of the

basic components and functions of cells, tissues, organs, and organ systems
- Essential Concept and/or Skill: Understand and apply knowledge of: interdependency of organisms, changes in environmental conditions, and survival of individuals and species. the cycling of matter and energy in ecosystems

District Core Standards:
- Understands and applies knowledge of the molecular basis of heredity
- Understands and applies knowledge of biological evolution
- Understands and applies knowledge of the structure and function of systems within organisms

Areas of Study: Biology
1st Quarter
Chapter One: The Study of Life
1:1 Biology in Use
1:2 Measurements Used in Biology
1:3 Scientific Method

Chapter Two: Features of Life and the Cell
2:1 Living Things and Their Parts
2:2 Cell Parts and Their Jobs
2:3 Special Cell Processes

Chapter Three: Classification
3:1 Why Things are Grouped
3:2 Methods of Classification
3:3 How Scientist Classify Today

2nd Quarter

Chapter Twenty-Two Cell Reproduction
22:1 Mitosis
22:2 Meiosis

Chapter Twenty-Six Inheritance of Traits
26:1 Genetics How and Why
26:2 Expected and Observed Results

Chapter Twenty-Seven Human Genetics
27:1 The Role of Chromosomes
27:2 Human Traits
27:3 Genetic Disorders

3rd Quarter

Chapter Twenty-Eight DNA Life's Code

28:1 The DNA Molecule
28:2 How the Genetic Message Changes

Chapter Twenty-Nine Evolution

29:1 Changes in Living Things
29:2 Explanations for Evolution

Chapter Seven: Simple Animals

7:1 Animal Classification
7:2 Sponges and Stinging Cell Animals
7:3 Worms
7:4 Soft Bodied Animals

Chapter Eight: Complex Animals

8:1 Complex Invertebrates
8:2 Vertebrates

4th Quarter

Chapter Nine: Nutrition

9:1 What are the Nutrients in Food
9:2 Calories

Chapter Ten: Digestion

10:1 The Process of Digestion
10:2 The Human Digestive System

Chapter Eleven: Circulation

11:1 The Process of Circulation
11:2 The Human Heart
11:3 Blood Vessels
11:4 Problems of the Circulatory System

Chapter Twenty Four Animal Reproduction

24:1 Asexual Reproduction
24:2 Sexual Reproduction
24:3 Reproduction in Humans

Chapter Twenty Five Animal Development

25:1 Development Inside the Female
25:2 Development Outside the Female
25:3 Metamorphosis

Frog Dissection Frog Dissection Activity

- External Anatomy
- Digestive System
- Respiratory System
- Urogenital System
- Circulatory System
- Nervous System
- Muscular System

Projects Biological Issues, Health Related Report

MATERIALS:

The student is expected to bring the following materials with them to class every day.

1. Covered Textbook; Biology An Everyday Experience
2. Pencil or Pen.
3. Paper (notebook for notes)
4. Pocket folder.
5. Daily Assignments.
   A) If you forget any of these things, you will be sent to your locker to get them, and you will be marked Tardy.
   B) The student should bring the following on specific assigned days.
      - Number two pencils for tests.

ATTENDANCE AND TARDY

1. See student Handbook for attendance policy.
2. See student Handbook for Tardy Policy, the student will be considered Tardy if he/she enters the classroom after the bell has rung.
3. See Student Handbook for Unapproved Absence. In this class an Unapproved Absence will be a loss of credit for that particular assignment.
4. Excused leave, the student must make arrangements to make up the work before the impending absence.
5. Make up work must be made up in the allotted time, which is the number of school days absent plus one-day, this includes tests. If this is not enough time, please see me before the allotted time is up.
6. In order to find out the make up work, check your course syllabus for assignments.

HOMEWORK

1. Expect a Homework assignment every day or every other day.
2. All work is due on the assigned day. Late work will receive one half credit, and will only be accepted until the end of the Chapter. All work after the Chapter Test, will receive no credit.
3. This does not apply to work due to excused absences.
4. No work for the chapter will be accepted after the chapter test.
5. Daily work will be graded on a scale of points. Work must be completed to be

graded. If you are not sure of an answer, ASK me.
6. Daily work is 1/3 of your grade, while tests are 2/3's of your grade.
7. The use of notes will be permitted on some tests.
8. Extra Credit is available for students who have completed ALL of their assignments for that particular chapter.
9. Copying of assignments from other students will not be tolerated.

MISCELLANEOUS

The following will not be permitted in Class

- No Pop/Water/or drinks of any kind.
- No Candy or food of any kind.
- No Coats/Hats
- No headsets or electronic (cell phones, pagers) devices.

GRADES

1. Your Quarter Grades is only an indicator of what your final grade will be. A student could receive an "A" at the end of a quarter and still fail the semester.
2. Approximate grading scale.
    - A-90%-100%
    - B- 80%-89%
    - C- 70%-79%
    - D- 60%-69%
    - F- below 60%