BIOLOGY SYLLABUS (Spring Semester): Biology is the study of living things. It is the systematic of how living organisms function and interact. This semester emphasizes investigating how genetic information encoded in DNA is expressed as proteins and as traits in living organisms, and how changes in DNA lead to new traits and new species. This course will help students to make scientific connections to their community, life, and future careers.

CLASS MATERIALS: 3 ring-binder; Chromebook (charged and ready to go!); loose leaf paper or notebook; folder; pen/pencil; colored pencils/markers and school assignment notebook.

CLASS EXPECTATIONS:

1. **BE PREPARED.**
    a. All assignments will be posted on google classroom. The calendar for what we will be doing each day is also posted on google classroom.
    b. Bring materials with you daily (including your Chromebook & assignment notebook).
    c. Bring your **CHARGED Chromebook** with you daily.

2. **BE RESPONSIBLE.**
    a. Be on time and at your desk when the bell rings. If you are tardy, you will be disciplined according to the school's tardy policy.
    b. Homework, labs, and projects will be due at the beginning of class. Late assignments will be accepted, but only until the end of the unit.
    c. If you are absent, please make up quizzes immediately and tests within two days. Labs must be made up within a week. Please refer to the absent policy in your student hand book for extension criteria.

3. **BE RESPECTFUL.**
    a. Leave coats, hats, etc. in your locker. Purses, backpacks, and bags must be kept underneath your desk or chair. Only books and study materials are allowed on desks. All materials must remain out of the lab area unless approved by the teacher.
    b. Phones are to be turned off and put away. **Phones and devices are not to be used unless given permission.**
    c. Please remove Apple watches, smart watches, fitness trackers, earbuds, etc. and place them into a backpack (or other secure container) on test/quiz days. You will not be allowed to wear them when taking a test or quiz.
    d. If you leave on a bathroom pass, please leave your phones in your backpack etc. Phones are not allowed in the bathrooms.
    e. Respect one another and the equipment in the room. **Anyone who creates an unsafe lab environment will be asked to leave - you will need to make up this time outside of class.** You are responsible for any broken lab equipment.
    f. Do not leave the classroom until the teacher dismisses you.

NEED EXTRA HELP? When extra help is needed, retakes, or missing/absent work please set up a time to meet…

1. Before school.
2. During lunch and learn.
3. During your study hall period.

GRADING:

1. The grading scale in Biology follows the scale in your student handbook. Each semester will be worth 90% of your grade and the other 10% will be the final exam.
2. Students work is weighted according to the following:
    a. Assessments: 55%
    b. Labwork: 45%

CURRICULUM: A Typical "Weekly" Schedule

Part 1: Introduction
- Initial Ideas
- Data Dive
- Discussion & Developing Explanations

Part 2: Core Ideas
- Core Ideas
- Revisions of Part 1 Explanations

Part 3: Investigation
- Investigation (labs)
- Revisions of Part 1 Explanations
- Optional: Voluntary Quiz

Part 4: Review & Assessment
- Reviewing Objectives
- Mastery Check
- Formative Assessment

Part 5: Life Connections
- Weekly Recap
- Life Connections

Biology teachers:

Ms. Helmke A207

Mr. Hendricks A218

Dr. Kohn A228

Semester Schedule

Traits & Genes

Week 1 - What determines the traits of an organism?
Week 2 - How are traits inherited from parents?
Week 3 – Can we predict traits?
Week 4 - Assessment

DNA & Proteins

Week 1: What is DNA and how does it work?
Week 2: How does DNA affect protein assembly?
Week 3: How does a protein determine traits?
Week 4 - Assessment

Mutations & Change

Week 1: How do mutations change genes & proteins?
Week 2: How can mutations result in new traits?
Week 3: How can mutations lead to new species?
Week 4 - Assessment

Biodiversity & Extinctions

Week 1: How does biodiversity affect ecosystems?
Week 2: Why do some species go extinct?
Week 3: How can human activity cause extinctions?
Week 4 - Assessment