

1. Title Honors Biology
2. Instructors Mrs. Holmgren and Mr. Tierney
3. Text Biology Principles and Explorations
4. Prerequisites Recommendations from junior high science teachers and test scores
5. Course Description A comprehensive study of the living world, this course is designed for the science-oriented student. Embedded within the course work is an emphasis on the processes of science including; making observations, proposing hypotheses, problem solving, experimental design and data analysis. A unit on tree identification, laboratory investigations, experiments, microscope work, and the dissection of a fetal pig are course requirements. It is hoped that this course will be a stepping stone toward other science courses offered at Morton High School.

6. Course Content	TOPIC	CHAPTERS
	Nature of science	1
	Characteristics and Processes of life	1
	Tree identification	tree guide
	Ecology	15 - 18
	Botany	23 - 26
	Classification	19
	Cytology & Biochemistry	2 - 3
	Photosynthesis and Respiration	4 - 5
	Mitosis and Meiosis	6
	Embryology	27 & 42
	Microbiology	20 - 22
	Genetics & Genetic Engineering	7 - 10
	Evolution	11 - 14
	Human biology (dissection)	35 - 42
	Zoology	27 - 34

7. Course Format Material will be presented for study in a variety of ways. Laboratory investigations will be the standard method of learning in the classroom. In addition, there will be homework to reinforce key concepts and to introduce some objectives. Lecture time is held to a minimum to allow students to experience science as a process. Generally lecture-discussion sessions are held at the beginning of each unit in order to introduce the topic and give direction, and again at the end of the unit to emphasize the important ideas and skills learned in the lesson.

8. Course Expectations      Since honors biology and standard biology are both introductory survey courses, they both cover essentially the same material. However, honors biology requires more higher-level thinking and more advanced laboratory skills. For example, during microscope work the students are taught how to measure specimens with the microscope and are then expected to use this skill throughout the course. Students are also taught how to design and conduct experiments. Throughout the year students will be required to demonstrate an ability to design and conduct their own experiments. In addition students are asked to apply their knowledge to more advanced problems on quizzes and tests.
9. Grades      Grades are determined on a total points basis. All tests, quizzes, lab reports, written reports, and homework count equally. For example, a 45/50 on a test is worth the same as a 45/50 on a lab report or homework assignment. All points earned by the student are added together at the end of the quarter and divided by the total possible to arrive at the students' grade percentage.
10. Course Objectives      Our curriculum is aligned to the NGSS standards.