



7th Grade Life Science Syllabus

Discovery Middle School
1304 Hughes Road
Madison, AL 35758

Teacher: Dave Sippel

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Class Webpage: <http://lsfa2019.weebly.com/> (password provided on 1st day of class)

Phone Numbers: (256) 203-3966

Course Description:

Madison City Schools course catalog - This course focuses on life science. Students are encouraged to develop an appreciation of the importance of diversity of life, while simultaneously understanding the impact of their roles as individuals in the community of life. Some areas of study include the characteristics of living things, functions of organelles, tissues and organs of various systems in the body, function of chromosomes, and Mendel's laws of genetics. The focus of this course prepares students for biology and other life science courses taken in high school. Students are involved in laboratory experiments for a deeper understanding of the concepts.

Additional information for this course can be found on the Alabama Department of education website. [Alabama Life Science Course of Study](#).

Course Objectives:

Welcome to Life Science! This semester we will be developing our skills as scientists to explore biological concepts from; the role of key molecules, to how cells work, why we look like our parents, how organisms shape our world and the amazing machine, the human body. The five block schedule requires us to work very efficiently to cover all the state-mandated material. We will be using labs from the Alabama Science, Technology and Math Initiative (AMSTI) to guide our hands-on explorations of these topics.

Like professional scientists, we will be recording all of our data and notes in a scientific notebook. In fact, you will completely use one composition notebook and may require an additional notebook during the semester. Your notebook will contain all of the notes we take in class, warm-up exercises, worksheets, experimental data and conclusions. Please bring the listed supplies and your notebook with you every day.

Classroom Expectations:

CLASSROOM BEHAVIOR:

Your behavior in the classroom not only affects your learning but also affects the learning of those around you. Therefore I have some straight forward rules to guide you. Please adhere to all rules at all times.

CLASSROOM RULES:

1. Enter class with a positive growth mindset for learning.
2. Be in your seat when the tardy bell rings.
3. Bring any and all texts, homework, and working materials with you.
4. DMS planner must be with you at all times.

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5. Treat others as you want to be treated.
6. Food and drink are not allowed in classrooms.
7. Electronic Devices, especially cell phones, will be put away during class time unless given teacher permission for use. consequence for misuse of electronic devices:
 - a. 1st offense: warning
 - b. 2nd offense: loss of device until the end of the day
 - c. 3rd offense: device taken to administration
8. Behave in a manner conducive to learning for all.
9. Show respect for yourself and others at all times.
10. Follow all rules listed in the Madison City Schools Code of Conduct

CONSEQUENCES FOR BREAKING CLASSROOM RULES*:

1. Student will immediately stop the action and will discuss the issue privately with Mr. Sippel during class or break. I keep a record of all issues.
2. Parents will be contacted and asked to discuss the issue with the student.
3. Break or lunch detention.
4. After school detention.
5. Conference with parent(s).
6. Office referral and further consequences per the Madison City Schools' Code of Conduct.

**The severity of the offense will determine the severity of the consequence.*

Accommodations:

Requests for accommodations for this course or any school event are welcomed from students and parents.

Concerning laptop utilization:

1. Student laptops should not be hard wired to the network or have print capabilities.
2. Use of discs, flash drives, jump drives, or other USB devices will not be allowed on Madison City computers.
3. Neither the teacher, nor the school is responsible for broken, stolen, or lost laptops.
4. Laptops and other electronic devices will be used at the individual discretion of the teacher.

Grading Policy:

Grades are weighted with tests worth 60% of the overall grade. Test grades include unit tests, projects and presentations. Tests will be computer based and are viewed by students and parents electronically once the tests are corrected and scored and all students have completed the test. I expect that students will review completed work and share their progress with their parents. At times, I may ask students to have parents sign their assignments to indicate parental review. The other 40% of your overall grade will include classroom and laboratory assignments, homework assignments, and class and lab participation. All classroom and lab work will be recorded in the lab notebook so it is critical to have it in class every day.

Since students are responsible for their learning, I expect that students will learn how to log into iNow to monitor their grades and any absences. Although parents may also log into iNow and look at grades, it is

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most important for the student to understand how they are performing and proactively discuss any questions with me and/or a parent if help is needed.

Make-up work/test Policy:

If you miss class it is your responsibility to find out what we did and make up that work within three days. Only work for excused absences will be accepted. Therefore, make sure to provide a written note to the office within three days of the absence. If the absence is unexcused, the grade for missed assignments will be a zero. I maintain a laboratory notebook with a table of contents that includes the distributed worksheets and information for each day listed. Copies of handouts are maintained in a handout binder located at the front of the room. An electronic table of contents is also located on my website. Students are required to review and obtain copies of missed work from these documents. A table of contents entry should be made for the missed day(s). Student should note at the top of the appropriate page of the notebook that they were absent that day. I am available on Tuesday and Wednesday for tutoring. Please make arrangements with me for a required lab make up or tutoring appointment.

INFORMATION TECHNOLOGY AND SECURITY:

All course documents are stored on my website <http://lsfa2019.weebly.com/>. The site is password protected. Please do not provide any website documents nor the site password to anyone not currently enrolled in the course.

A Google Classroom has been setup for each block to provide messaging regarding class assignments, a calendar of key events and electronic assignments. A Schoology classroom has also been setup to provide electronic tests and quizzes. Parents and Students should review the Schoology privacy policy and terms of use at <https://www.schoology.com/privacy.php>. Note that Schoology asks for a birthday to verify compliance with the U.S.- E.U. Safe Harbor framework as set forth by the U.S. Department of Commerce. There is no verification of the birthday so students may choose to modify the exact date if there is a concern with identify information security. Tests will generally be given in an online format in Schoology. Students are prohibited from copying or transmitting any information regarding a test. Any form of communication with others during a test is prohibited per the Student Code of Conduct.

Textbook:

Alabama Life iScience © 2017, ISBN-13 : 9780076807109

To use the online electronic textbook, go to the website and enter the username and password on the login screen in the format indicated below. Note that the online textbook will not be available until the 3rd week of class.

Link: <https://connected.mcgraw-hill.com/connected/login.do>

User Name: *11MCSdebbielc* (The prefix 11MCS followed by the first name, middle initial, last initial)

Password: *dc55555* (The first name initial and last name initial followed by the lunch account number). After successful login, click on the image of the textbook to use the electronic version.

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Materials and Supplies Needed:

One to two College ruled Composition Notebooks (some students may need a second notebook within the last 2-4 weeks of class), Spiral notebooks and three ring binders are not acceptable. Pencils and a manual pencil sharpener

Course Outline:

The following units will be covered and satisfy requirements of the Alabama Course of Study for 7th grade life science.

Scientific Process - introductory unit on the scientific method, measurement and safe use of lab equipment.

Biochemistry & Cells- we first answer the question: what is a living thing? We then explore the properties of biologically important molecules including water, nucleic acids, proteins, lipids and carbohydrates and learn how macromolecules are organized in cell organelles and within the hierarchy of living systems.

Cell Processes – we evaluate role of cells in organisms, how they move materials, get energy and reproduce.

DNA and Genetics – we first explore DNA's structure and how it stores and transmits genetic information. Then, in genetics we review how meiotic cell division produces gametes which then combine in fertilization to produce offspring. The heredity resulting from sexual reproduction is explored through classical Mendelian genetics and the use of Punnett squares to predict the outcome of genetic crosses.

Human Anatomy and Physiology - covers major systems of the human body including the digestive, respiratory, cardiovascular, circulatory, reproductive, nervous, and musculoskeletal systems.

Ecology - reviews the classification and organization of life in the biosphere and the interaction of organisms with their environment and with other organisms.

Evolution & Biodiversity – we explore how random genetic variation through mutation and reproduction leads to natural selection and ultimately evolution of species which are specifically adapted to their environment. We then review the resulting diversity of life, how organisms are classified and the key characteristics of the prokaryotic and eukaryotic kingdoms.

The learning objectives for each unit are described in one or more "Student Learning Maps" (SLM). Each SLM states; the essential questions that will be explored during the unit, the concepts and specific learning targets covered, vocabulary the student is expected to know and references to other class resources. All course documents are stored on my website <http://lsfa2019.weebly.com/>. Documents will be made available on the website for students and parents as the class progresses.