



2025-2026

Liberty Middle School

281 Dock Murphy Drive, Madison, AL 35758

Mrs. Alysa Simpson

Medical Detectives

Teacher Contact Information	Email: alsimpson@madisoncity.k12.al.us Classroom Phone: 256-430-0001 ext: 2129
Course Digital Platforms	Webpage Link: https://www.madisoncity.k12.al.us/domain/2597 Schoology: https://madisoncity.schoology.com/home Parent Communication: <i>Power Square will be used for parent contact. Please make sure all contact information is up to date in powerschool.</i>
Textbook Information	Curriculum: www.pltw.org <i>Parents and guardians can access other supplementary materials through the Schoology platform.</i>
Course Description	This course is designed to introduce students to the world of medicine and epidemiology. Medical Detectives is a Project Lead The Way Gateway course where students will play the role of real-life medical detectives. They will solve medical mysteries through hands-on projects and labs. We accomplish this through small group and whole group discussions, labs, and numerous hands-on activities both inside and outside the classroom. By the end of this course, students should have a solid base in biology, as well as a thorough understanding of correct lab procedure and safety, experimentation, and how science relates to the world around us.
Course Prerequisites	None
Course Objectives	By the end of this course, students should have a solid base in biology, as well as a thorough understanding of correct lab procedure and safety, experimentation, and how science relates to the world around us.
Instructional Delivery Plan, Course Outline & Culminating Project	Multiple delivery methods will be used during our instructional time these include but are not limited to: lecturing, modeling, interactive lectures, demonstrations, recap sessions, group discussions, and teacher led simulations. Unit 1: Disease Detectives Students discover how healthcare professionals act as medical detectives to identify, treat, and prevent illness in their patients. Students collect and interpret vital signs to evaluate patient health, explore different infectious disease agents, and design and conduct experiments to test the effectiveness of antibiotics on bacteria. In the end-of-lesson project, students collect and analyze medical data to diagnose a patient with a mystery illness. Unit 2: Mysteries of the Human Body This lesson introduces the human body as a collection of body systems, with a focus on the nervous system. Students investigate how the nervous system collects information from the outside world, moves this information through neurons, processes this information in the brain, and initiates the body's response accordingly. Students create neuron models and perform a sheep brain dissection. They use their knowledge to explore symptoms as they relate to specific nervous system dysfunction and analyze evidence to identify the cause of the dysfunction. In the end-of-lesson project, students create educational resources to help their patient understand the medical condition. Unit 3: Outbreak! A mysterious toxin is endangering the health of a community. Using their understanding of human body systems, students describe how the suspected toxin has impacted the health of the patient. Students analyze patient symptoms and perform lab analyses of patient samples to identify the culprit and determine how it is spreading. In the end-of-unit problem, students locate the source of the toxin using a map of the community, patient histories, and lab data, then present their findings to help community leaders mitigate the situation. Culminating Project: Extemporaneous Health Poster Rubric for project: Extemporaneous Poster

Course Goals	Students Will: 1. Learn and use standard safety practices. 2. Apply experimental design, creative thinking, and problem solving to investigate the inner-workings of the human body, diagnose disease, and improve human health. 3. Use critical and creative problem solving skills and thinking skills determine course of action.
Credentialing	None
CTSO Integration <i>(LMS Career Technical Student Organization is TSA)</i>	Technology Student Association, TSA, is a career technical student organization and a fundamental part of this course. It is a national career and technical student organization of students engaged in science, technology, engineering, and mathematics (STEM). TSA is integrated into the program which includes competitions and leadership opportunities. TSA provides students with activities during their class time and after school with our local TSA Chapter. <i>TSA Based Activities relevant to Introduction to Careers in Healthcare include but are not limited Career Prep, Resumes, & Interviews.</i> HOSA is a global student-led organization recognized by the U.S. Department of Education and the Department of Health and Human Services and several federal and state agencies. HOSA's mission is to empower HOSA-Future Health Professionals to become leaders in the global health community, through education, collaboration, and experience. HOSA actively promotes career opportunities in the health industry and to enhance the delivery of quality health care to all people. HOSA's goal is to encourage all health science instructors and students to affiliate and be actively involved in the HSE-HOSA Partnership.
Embedded Numeracy, Literacy and Science Anchor Assignment <i>(Outbreak)</i>	A mysterious toxin is endangering the health of a community. Using their understanding of human body systems, students describe how the suspected toxin has impacted the health of the patient. Students analyze patient symptoms and perform lab analyses of patient samples to identify the disease pathogen using logical reasoning based on evidence. Students will calculate the food specific attack rates to determine the source of foodborne illness and determine how it is spreading. In the end-of-unit problem, students locate the source of the toxin using a map of the community, patient histories, and lab data, then present their findings to help community leaders mitigate the situation. ALCOS Numeracy: Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. [8-SP4]) ALSCOS Literacy: Write arguments to support claims with clear reasons and relevant evidence. [W.8.1]b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text. [W.8.1b]) SCIENCE: https://www.nextgenscience.org/ Gather, read, and synthesize information from multiple appropriate sources and assess the credibility, accuracy, and possible bias of each publication and methods used, and describe how they are supported or not supported by evidence. (MS-LS1-8)MS-LS1-3.: Use arguments supported by evidence for how the body is a system of interacting subsystems composed of groups of cells. Systems may interact with other systems; they may have sub-systems and be a part of larger complex systems. (MS-LS1-3)
CTE Lab Safety Guidelines	Each student in a CTE/PLTW course will be required to complete a lab safety exam and score a 100% correct before being allowed to use any tools on projects. We expect students to responsibly and safely use the CTE equipment. Examples of equipment used in CTE courses may include and are not limited to the following: scissors, hot glue guns, box cutters, power tools, hand tools, measuring tools, electronic equipment, computers, medical supplies, adhesives, robotics equipment, food items (consumable and non-consumable).
Classroom Expectations	1. Have a Vision 2. Lean into Struggles. 3. Be a Learner, Not a Finisher 4. Feed Your Passion 5. Own Your Education. 6. Be Respectful 7. Cheerful Collaboration 1. No cell phones allowed.. 2. Be seated and ready for class when the bell rings. a. Tardy students without an excuse will receive a mark, 3 marks =detention. 3. Come prepared for class. Bring all necessary supplies. Charged computers are an absolute

	requirement. 4. Respect your teacher, your classmates, and yourself. a. Treat each person with respect to maintain a classroom that is a safe place to share. 5. Listen and follow directions. 6. Follow all safety lab safety rules & have a signed lab safety contract on file w/ Mrs. Simpson. 7. If it's not yours, don't touch it. Keep your hands and feet to yourself. 8. The teacher dismisses the class, not the bell. 9. No food or drink allowed in my class due to allergies and expensive medical equipment. 10. Do not visit gaming websites during class. Remain on our curriculum websites at all times. 11. Be Persistent and Positive a. Be willing to explore new topics with a good attitude and work through challenging assignments. Be open to change your ideas. b. Work cooperatively in small groups because everyone's participation & ideas are All students must follow the Madison City Schools Code of Conduct.
Progressive Discipline (LMS Policy)	In our classroom, we follow a progressive discipline plan to ensure a positive and respectful learning environment. Minor infractions will be addressed with a verbal warning including a private student conversation. Continued infractions will lead to parent/guardian contact and possible detention. Severe or repeated infractions will result in referral to the administration and could lead to more serious consequences. Our goal is to help students understand and correct their behavior while maintaining a supportive and productive classroom. Step 1: Verbal warning Step 2: Student/teacher conference Step 3: Parent contact/conference Step 4: Detention and a parent contact Step 5: Office referral
Grading Policy & Scale (MCS Policy)	60% = Assessments (Tests, Mini-Assessment, Projects, Portfolio) 40% = Daily Grades (Quizzes, Homework, Classwork, and Participation) Grade Scale: 90-100 = A; 80-89 = B; 70-79 = C; 65-69 = D; <64 = F
Late Work Policy	For work turned in late, the following policy will apply: • The assignment will drop one LETTER grade for each school day that passes. For example, if an assignment is turned in one school day late, the highest a student can receive is 89%; two days late, 79%, etc. 1 day late = maximum credit 89% 2 days late = maximum credit 79% 3 days late = maximum credit 69% 4 days late = maximum credit 59% 5-10 days late = maximum credit 50% Half credit is always better than no credit! Until work has been made up, "Missing" (which counts as a zero) will be put in the grade book. This will be updated once work is completed and turned in. Students are expected to turn assignments in on time in order to have the greatest chance of success. Requesting an Extension for a Late/Missing Assignment: • Students will need to email Mrs. Simpson to request an extension including the time they required to complete the assignment.. Students must copy their parents on this email. Students (and parents) who do not request an extension AND have a D or F in the class will receive an email detailing missing assignments and the date of a required study session the student must attend in order to complete the work.
Make-up Work/Test Policy	Students with excused absences will be allowed to make-up all work within three days of returning to school. It is the student's responsibility to ask for make-up work. Students can get with a classmate or ask the teacher for help. Work that is not made up will become a zero (including quizzes/tests). Many times, missed quizzes and tests can be made up during school.
Technology Policy	*FOCUS ACT NOTE: Cell Phones should be in backpacks AT ALL TIMES Students should bring their MCS chromebooks and chargers to class each day. Teachers utilize

	GoGuardian to monitor student activity and participation; however, students are responsible for their activity on school-issued devices and using their MCS accounts.
Accommodations	Requests for accommodations for this course or any school event are welcomed from students and parents.
Materials & Supplies	Spiral Notebook, Pencil, headphones with audio jack(not wireless) Wish List: clorox wipes, colored copy paper, cardstock, sharpies, bandaids, paper towels
Homework	All assignments and projects will be given ample amounts of time to be completed during class time. Time management will be reviewed, then requested by all students. If poor time management in class is displayed, students will be expected to finish assignments at home to be brought back to school the following day.
Liberty Middle School Classroom Management Plan	Liberty Middle School Classroom Management Plan: Step 1: Verbal warning Step 2: Student/teacher conference with parent notification Step 3: Parent contact/conference Step 4: Detention Step 5: Referral to administration for repeat Class I violations and initial Class II and Class III offenses (Madison City Schools Code of Conduct)
Parent & Student Acknowledgment For	<i>A digital copy of the Medical Detectives syllabus is on Schoology. Please review and submit this portion back to your teacher.</i>
	<i>All Student assignments will be posted in Schoology; however, all grades will be posted in Powerschools. Thank you for your support and I encourage you to contact me with any questions or concerns . Students will return this signed copy and a digital version of this syllabus is available on schoology & my LMS website for reference. Please sign below that you have received and read the syllabus and will abide by all policies. Thank You! Alysa Simpson</i>
	STUDENT FULL NAME (Please Print) BLOCK DATE
	PARENT SIGNATURE PARENT PHONE NUMBER(S) Please include any concerns or notes to Mrs. Simpson below: