

Discovery Middle School 1304 Hughes Road Madison, AL 35758

## MEDICAL DETECTIVES

Syllabus

Teacher: Dave Sippel

Email: ddsippel@madisoncity.k12.al.us

Class Webpage: <a href="http://mdfa2019.weebly.com/">http://mdfa2019.weebly.com/</a> (password

provided on 1st day of class)

Phone Numbers: (256) 203-3966

## **Course Description:**

Medical Detectives explores the biomedical sciences through hands-on projects and labs that require students to solve a variety of medical mysteries. Students investigate medical careers, vital signs, diagnosis and treatment of diseases and body systems such as the nervous system. Genetic testing for hereditary diseases and DNA crime scene analysis put the students in the place of real life medical detectives.

## **Course Objectives:**

Welcome to Medical Detectives! I hope you are ready to have fun and learn a lot of science. In the next 9 weeks we will step into the role of scientists who have to solve mysteries...from infectious diseases, to genetic disorders to a MURDER

Like professional medical detectives, we will be recording all of our data and notes in a scientific notebook. Your notebook will contain all of the notes we take in class, 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.
- 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.



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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.

#### 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:**

As an elective science course my key goals are to engage you in exploring science and prepare you to make good decisions on your academic program as you move forward to high school, college and beyond. Therefore, the grading rigor of this class is different from the core Life Science and Physical Science classes. Grading will be weighted with three case studies worth 60% of the overall grade. These case studies will be completed in groups and submitted individually at the end of each of the three units. I expect that you will review completed work and share your progress with your parents. The other 40% of your overall grade will be based on satisfactory completion of classroom assignments, and participation during class. All classroom 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 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 Policy:

If you miss class it is your responsibility to find out what we did and makeup 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

<sup>\*</sup>The severity of the offense will determine the severity of the consequence.

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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://mdfa18.weebly.com/. Documents will be made available on the website for students and parents as the class progresses. 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.

**Textbook:** There is no textbook for this class

### **Materials and Supplies Needed:**

One College ruled Composition Notebook. Please note that spiral notebooks and three ring binders are not acceptable. Pencils and a manual pencil sharpener

#### **Course Outline:**

The following units will be covered during the class.

#### Unit 1: Disease Detectives?

Students will learn how to measure vital signs, look at patient histories and diagnose an infectious disease.

#### Unit 2: Mysteries of the Human Body System

This lesson introduces the interrelatedness of human body systems and specifically focuses on the nervous system. 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.

#### Unit 3: Outbreak!

A mysterious toxin is endangering the health of a community. Students analyze patient symptoms and perform lab analyses of patient samples to identify the culprit and determine how it's spreading

#### *Unit 4: Murder Mystery*

In this unit students become forensic scientists investigating a murder. The crime scene, scientific analysis of the physical evidence and an autopsy help to solve the mystery.

#### *Unit 5: The future of Biomedical Science (as time allows)*

In this last unit students will explore careers in biomedical science and review and discuss future trends.

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