**Advanced STEM Research Grade 8**

**Mrs. Malcolm**

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Welcome to the Advanced STEM Research class here at Read Mountain. I hope you are ready to have fun, learn, and BE challenged! In class this year you will learn effective research skills, interpretation of quality resources, identification of primary vs. secondary resources, proper source citation, and problem solving skills that are project/problem based and inquiry driven. We will incorporate curriculum across multiple subject areas, as well as integration of technology and engineering. Students will be expected to work individually and collaboratively to solve problems, and research new information. I have established classroom rules to ensure that all students thrive and maintain a positive learning environment while we strive for academic excellence.

**Class Rules:**

* Be kind and respectful (to the teacher, yourself, others, and the lab room itself).
* Come to class prepared to learn. Be sure to bring your book, supplies, agenda, and yourself on time to class every day.
* Do not be a disruption to yourself or others. Please raise your hand before speaking or moving around the room after class has started to help minimize distractions. Do not leave the classroom without permission.
* Always be ready to do your best work, and maintain a positive learning environment.
* And as always, obey all school rules in your agenda book☺.

**Rewards for following classroom rules**:

* Verbal praise and positive notes or phone calls home to parents.
* Extra time when allowed for assignments, projects, free reading, homework, & content trivia games.
* Incentives such as extra points on quizzes or tests, candy, etc.
* PASSING YOUR SOL TEST! (These follow as a spring board for High School classes that are advanced, etc.)

**Consequences for breaking a rule:**

* Verbal warning from teacher
* Verbal Conference with teacher over the student’s unacceptable behavior & how to correct the situation.
* Phone call home to parent; possible silent lunch with teacher
* If situation does not improve, referral to the office for further discipline measures.

**Class Materials List:**

--general items in your pencil pouch located on 8th grade supply list (pens, pencils, highlighters, colored pencils, scissors, tape).

--loose leaf paper as needed (most assignments will be electronic).

--You will be utilizing a chrome book in class for the duration of the year. You may like to optionally purchase your own personal mouse and headphones or earbuds. However, these are not required for this class.

**Core driving questions within the curriculum:**

Within this class key core driving questions will be imbedded in an inquiry approach, but this class will also be fluid and which it will be geared to research and STEM activities geared around specific student interests. Some of the core driving questions students will encounter this year will be:

1.) What constitutes quality research?

2.) What is the art of asking the right questions?

3.) What is Science? Engineering? Technology? Math? Art?

4.) What is the difference between quantitative and qualitative data and how is it interpreted?

5.) How do humans impact the environment? How can we engineer future technology around our environment?

6.) What is the nature and exploration of energy? What are some alternative energy sources?

7.) How will robotics help humans in the future?

**Course Standards and Measurements (Grade breakdown):**

**Students will receive a grade each nine weeks of an O, S, or N.**

**O = outstanding S= satisfactory N=needs improvement**