

## Welcome to Jr High Science: Quarter 2

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Email me at any time if you have any questions or concerns.

Hello Jr High Parents and Guardians:)

Welcome to the 2nd quarter of Jr High science! The 6th grade students are learning about the function of the cell membrane and other important cell organelles. Ask them about all of the microscope work they have completed during science class! The 7th grade students are just finishing up ecological relationships and how limiting factors affect populations. Coming soon...Genetics! The 8th grade students are working on their science fair projects and a variety of experiments using the scientific method.. Coming soon: Atoms and Molecules.

All units will require students to use either the engineering design process or experimental method.

Mrs. Cloney's parent/teacher conferences: Thursday, October 26, 8AM-11:00AM and 12:00PM-2:45PM.

Morning conferences will be in person in the gym, and the afternoon conferences will be via google meets.

If you are an 8th grade parent and you have not been receiving the science fair update emails, please let me know immediately!

The NGSS standards that will be covered during the second quarter are....

6th, 7th & 8th: Scientific method and design process: NGSS: MS-ETS1: Engineering Design; Scientific Method: Science and Engineering Practices

The students will be using the scientific method and design process while actively engaging in our middle school program: Science Career Adventures.

6th: MS-LS1-1. Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells

MS-LS1-2. Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function

Next...MS-ESS2-1. Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.

MS-ESS2-3. Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.

7th:MS-LS2-2. Ecosystems: Interactions, Energy, and Dynamics. Science and Engineering Practices Constructing Explanations and Designing Solutions. Crosscutting concepts: Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems. CC: Cause and effect relationships. Practices: Patterns Next...MS-LS3-2. Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation. [Clarification Statement: Emphasis is on using models such as Punnett squares, diagrams, and simulations to describe the cause and effect relationship of gene transmission from parent(s) to offspring and resulting genetic variation.]

8th: Science Fair: December 14th! More info to follow soon!! We will need parent judges. Specifics coming soon!

Matter and Its Interactions and Energy: Practices: Developing and Using Models; Analyzing and Interpreting Data; CC: Scale, Proportion, and Quantity; Patterns; Cause and Effect.

MS-PS1-1. Develop models to describe the atomic composition of simple molecules and extended structures MS-PS1-2. Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.

MS-PS1-4. Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.

MS-PS3-4. Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample.