

8th Grade Science

Finn Lanning

Course Description: The Next Generation Science Standards allow 8th grade students to become scientists by learning about the world around them. This year, students will make discoveries through collaboration with peers, class discussions, and student-designed experiments. Students will also develop a practice of engineering solutions to problems they face in their world. In 8th Grade, students will be challenged to apply and improve their critical thinking and problem solving skills to become the best scientists and engineers they can be!

Course Essential Questions: *How do scientists work to gather, analyze, validate and communicate their work?

*How do engineers identify a need, develop solutions, test and communication results and plan for redesign?

*How do human activities affect Earth's resources, climate, biosphere and natural habitats?

Long Term Targets:

*I can ask questions while I read to build my background knowledge in order to understand the text better.

*I can participate in discussions by mindfully listening, building on other's ideas, asking clarifying questions, and using my background knowledge I've built through reading, labs, and activities.

*I can write a question, hypothesis, and perform research that can be addressed in an experiment.

*I can prepare to perform an experiment by completing a materials list, detailed procedure, scientific diagram, data tables, and graphs.

*I can perform a lab experiment by collaborating kindly with my lab group, carefully following the written procedure, and asking questions of others to identify confusion.

*I can explain how data collected in an experiment support a conclusion I have written.

Month	Unit Title
September	Unit 1: Matter and Movement
October	Unit 2: Earth and the Solar System
November	Unit 3: Earth's Changing Climate
December	Unit 4: From Molecules to Organisms
January	Unit 5: Inheriting Traits
February	Unit 6: Human Genetics
March	Unit 7: Changing Environments
April	Unit 8: Transforming Energy
May	Unit 9: Waves and Information Transfer

More details about each unit, a more thorough course syllabus, and daily lessons (as they are written) are available on the class website at www.GALSscience.org

I am very excited to collaborate with your scientists and engineers this year!

Best,

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