



Class Syllabus

Mystery Science - The Birth of Rocks! 3rd - 5th Grades



All classes are 11:00 - 12:30 on Thursdays in the Summit Room

Instructor: Chenelle Zoerb

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Curriculum: Mystery Science is an approved science curriculum of the Matanuska Susitna Borough School District. This class also requires participation in the MCS Science Fair. See Weekly Lesson Plans below.

Timing: Each class is 1.5 hours long and will cover a lesson along with supplemental activities. Please drop-off and pick-up your child on-time. Supervision is not available before or after class.

Pick-Up Procedures: Students will exit down the staircase near accounting / the front office. Please meet your child in the Great Room - or be ready for a quick pick-up in the pickup loop. For smooth traffic flow, please do not wait for your child outside the classroom doors. Thank you!

Attendance: Regular attendance is required.

Behavior Expectations: All students are expected to participate with a positive mindset. This class includes partner & group activities that include reading, writing, problem-solving, and project completion. Hybrid classes are a privilege. Repeat negative behaviors may result in unenrollment.

Food / Drink: Students may bring a water bottle to class. No food please.

Bathroom Policy: Students are able to use the restroom as needed, but may need to wait for another student to return first.

Grading: This is a graded class. All students will receive a grade that reflects their attendance, participation, and work completion.

Fees: This class has a \$50 fee. The fee will cover class materials plus transportation and admission to the [Alaska Museum of Science and Nature](#).

Weekly Lesson Plans

Schedule subject to change

January 7th - Class 1

- **Volcanoes and Patterns of Earth's Features:** Could a volcano pop up where you live?
 - In this lesson, students explore the past and present pattern of where volcanoes exist on the earth. In the activity, Mapping Volcanoes, students plot volcano locations on a world map and look for patterns. Students analyze these maps to discover that volcanoes form a “Ring of Fire” around the Pacific Ocean.

☐ **Parent Science Fair packet sent home. Please sign and return next week.**

January 15th - Class 2

- **Science Fair: What will your project be?**
 - In this lesson, students will learn about the purpose and process of a science fair and what makes a strong project. We will explore different types of experiments and demonstrations, brainstorm ideas, and practice asking scientific questions. They will also learn how to organize their materials, plan steps for testing, and think about how to present their results.

☐ **Choose your topic paper sent home. Please complete and return next week.**

January 22nd - Class 3

- **Volcanoes and Rock Cycle:** Why do some volcanoes explode?
 - In this lesson, students will investigate how differences in lava types explain differences in the shape and eruption patterns among volcanoes. In the activity, Bubble Trouble, students compare two different types of "lava" -- thin and thick. They use this information to figure out why volcanoes have different shapes and how the type of lava explains why some volcanoes explode.
- **Project Power Hour (optional activity 1:00 - 2:00)**
 - A dedicated hour of open classroom time for you to work with your child on their science fair project. Ideal if you need extra workspace or a quieter environment. Basic supplies—glue, colored paper, markers, and pencils—will be provided.

☐ **Suggested at-home activity for this week: Research your topic, and form a hypothesis.**

January 29th - Class 4

- **The Rock Cycle: How are rocks made and changed?**
 - In this lesson, students will learn about the three main types of rocks—igneous, sedimentary, and metamorphic—and how they interact through natural processes to form the rock cycle. In the activity, *Starburst Rocks*, students will use pieces of Starburst candy to model how rocks are formed and transformed.
 - **Project Power Hour (optional activity 1:00 - 2:00)**
 - A dedicated hour of open classroom time for you to work with your child on their science fair project. Ideal if you need extra workspace or a quieter environment. Basic supplies—glue, colored paper, markers, and pencils—will be provided.
- **Suggested at-home activity for this week: Gather your materials and create a step-by-step plan. Review the rubric before starting your experiment.**

February 5th - Class 5

- **Weathering and Erosion: Will a mountain last forever?**
 - In this lesson, students will explore how solid rock breaks apart into smaller pieces through a process called weathering (including root-wedging and ice-wedging). In the activity, Sugar Shake, students use sugar cubes as a model for rocks.
 - **Project Power Hour (optional activity 1:00 - 2:00)**
 - A dedicated hour of open classroom time for you to work with your child on their science fair project. Ideal if you need extra workspace or a quieter environment. Basic supplies—glue, colored paper, markers, and pencils—will be provided.
- **Suggested at-home activity for this week: Conduct your experiment. Keep data in a journal. Take pictures along the way.**

February 12th - Class 6

- **Sedimentary Rock and Fossils: What did your town look like 100 million years ago?**
 - In this lesson, students explore how fossils and sedimentary rocks reveal Earth's ancient environments. Students will use a model canyon and fossil clues to reconstruct past landscapes and discover what their town may have looked like millions of years ago.
- **Project Power Hour (optional activity 1:00 - 2:00)**
 - A dedicated hour of open classroom time for you to work with your child on their science fair project. Ideal if you need extra workspace or a quieter environment. Basic supplies—glue, colored paper, markers, and pencils—will be provided.

☐ Suggested at-home activity for this week: Create a graph of your data.

February 19th - Class 7

- **Erosion, Natural Hazards, & Engineering:** How could you survive a landslide?
 - In this lesson, students will learn about the types, causes, and dangers of landslides. In the activity, Slide City, students are faced with the engineering problems of protecting a house from a landslide and preventing a landslide from happening. They use a brainstorming technique to design creative solutions.
- **Project Power Hour (optional activity 1:00 - 2:00)**
 - A dedicated hour of open classroom time for you to work with your child on their science fair project. Ideal if you need extra workspace or a quieter environment. Basic supplies—glue, colored paper, markers, and pencils—will be provided.

☐ Suggested at-home activity for this week: Analyze your results. Did your experiment prove or disprove your hypothesis?

February 26th - Class 8

- **Build a Volcano:**
 - In this lesson, students will explore how volcanoes form and what causes them to erupt. They will measure and mix ingredients to create their own batch of salt dough. Using their dough, they will construct model volcanoes and observe how the shape and structure relate to real volcanic formations.
- **Project Power Hour (optional activity 1:00 - 2:00)**
 - A dedicated hour of open classroom time for you to work with your child on their science fair project. Ideal if you need extra workspace or a quieter environment. Basic supplies—glue, colored paper, markers, and pencils—will be provided.

☐ Suggested at-home activity for this week: Congratulations, your project should be completed! Glue file folders together and make a mini presentation board to plan / sketch out your design. The headings should align with the steps of the Scientific Method.

March 5th - Class 9

- **Volcano painting**
- **Project Power Hour (optional activity 12:30 - 1:30)**

- A dedicated hour of open classroom time for you to work with your child on their science fair project. Ideal if you need extra workspace or a quieter environment. Basic supplies—glue, colored paper, markers, and pencils—will be provided.

- **Suggested at-home activity for this week:** Continue working on your presentation board. Think of ways to make it easy to read and pleasing to the eye.

March 12th - NO CLASS, Spring Break

- **Suggested at-home activity for this week:** Finish your presentation board and practice presenting your project to a judge. Use the guide and make note cards if needed. Turn projects in to Chenelle Zoerb on or before the next class.

March 19th - Class 10 *Projects due on or before this date!*

- **Science Fair Project Presentations / Judging** and other activities
 - *Projects will be on display until next week's class*

March 26th - Class 11

- **Unit Review:**
 - Students will review key concepts from the unit using interactive tools and games. They will first answer questions on individual whiteboards, then they will play a Kahoot quiz to test their knowledge in a fun, fast-paced game format. This combination of hands-on practice and friendly competition helps students solidify what they've learned and celebrate their progress.
- **Volcano ERUPTIONS! (outside)**
- **Take volcanoes and Science Fair projects home**

April 2nd - Field Trip to [Alaska Museum of Science and Nature](https://alaskasciencefair.org/) ! 🗿 🌋 🦖

Take it Further ... enter your project into the Alaska Science and Engineering Fair!



* <https://alaskasciencefair.org/> *

March 27th - Student & Project Check-In

March 28th - Judging Day