

# 8<sup>th</sup> Grade Science

Teacher: Ms. Cahill

Butler Middle School, Lowell Public Schools

August 31, 2021

Dear Parents/Guardians,

I am very excited to be your child's science teacher! Throughout the year, your child will be building essential science, technology, and engineering skills as we learn about planetary science, heredity and adaptation, and planetary science. In class this year, we will be observing COVID safety protocols in accordance with school and district policies. With these protocols in place, I am excited to engage students in hands-on science learning experiences. Students will learn through conducting scientific investigations, completing engineering design challenges, observing and questioning the natural world, creating models, using math and computational thinking, representing data, making scientific explanations, and engaging in scientific argumentation about important current topics.

Your student has been given a copy of the class syllabus and lab safety contract to share with you. **These materials can also be found on your student's 8th grade science google classroom.** Please review the syllabus and expectations carefully with your student, and then **sign below to indicate that you have reviewed it with your child.**

I look forward to getting to know you and your child this school year. If you have any questions or concerns, please contact me by email, text, or phone. The best way to reach me is through text message

Sincerely,  
Clara Cahill

8<sup>th</sup> Grade Science Teacher  
Butler Middle School, Room 203

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**Parent/guardians and students:** Please sign below to indicate that you have reviewed this letter and the course syllabus and expectations together.

_____ Parent/guardian signature	_____ Student signature
_____ Parent/guardian name (please print)	_____ Student name (please print)

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**8<sup>th</sup> Grade Science**  
**2021-2022 Syllabus**  
**Butler Middle School, Lowell MA**  
**Teacher: Ms. Clara Cahill**

**email:** [ccahill@lowell.k12.ma.us](mailto:ccahill@lowell.k12.ma.us) ☆ **Phone:** 978-937-8973, extension 46853

In 8th grade science, we will investigate key questions and engineering problems in each of three core units. Some of these questions and problems are listed in the chart below. Please note that the timeframes for each unit may shift based on student and class performance and interest.

Unit	Selected Driving Questions	Timeframe
<b>Planetary Science</b>	<ul style="list-style-type: none"><li>❖ What causes night and day and the seasons on Earth?</li><li>❖ What causes eclipses and phases of the Moon?</li><li>❖ What objects are part of our solar system and universe, and how do we know what's out there?</li></ul>	September-October
<b>Heredity and adaptation</b>	<ul style="list-style-type: none"><li>❖ What can the fossil record tell us about our ancestors and about the history of life on Earth?</li><li>❖ How are our traits passed on from our ancestors?</li><li>❖ Why is there so much diversity of life on Earth?</li></ul>	November-December
<b>Chemistry</b>	<ul style="list-style-type: none"><li>❖ How can we identify an unknown substance?</li><li>❖ What makes up matter?</li><li>❖ How do thermometers work?</li><li>❖ How can containers keep stuff from warming up or cooling down?</li><li>❖ What happens when new substances are formed?</li></ul>	January-June

**Curriculum:** Students can also access class resources and activities through my Google Classroom site. Students will be given access to this website within the first few weeks of school. Students must be logged into their LPS Google accounts to access the website, as per LPS technology policy.

**Classroom Expectations and Rules:** At all times, students should follow these classroom expectations:

1. **Be respectful** – Treat others, yourself, classroom resources, and our school with dignity and kindness. Listen attentively when others are speaking.
2. **Be responsible** – Stay on task at all times. Complete all classwork and homework. Come to class on time each day prepared to work hard and learn. Keep your area and class materials clean and organized.
3. **Be safe** – Use all classroom materials ONLY as directed. Follow all lab and classroom safety rules, as described in the safety contract.

## Classroom Materials

Students should have the following materials in class each day:

- Science resource notebook (composition notebook, to remain in class)
- 1" Science Binder or science folder (to remain in class)
- Chromebook
- Pencils
- Agenda book
- Completed homework assignments.

## Grading

Science grades will be calculated as follows:

- **25% Classwork (including class participation and written assignments)**
- **20% Investigation summaries and quizzes**
- **15% Exit tickets**
- **15% Science resource notebook (Summary notes, key terms, and final models)**
- **15% Tests and major projects**
- **10% Homework**

**Classwork** - Classwork includes online and hands-on investigations, discussions, and class participation.

**Investigation summaries and quizzes** - At the end of each investigation, students will complete a written summary, presentation, project, or quiz.

**Exit tickets** and quizzes are short, online assignments given at the end of a class to assess student understanding of core concepts. Students will complete an exit ticket at least twice per week.

**Science resource notebook:** For each investigation, students will record core ideas, final models, and key terms (with definitions) in their science resource notebook.

**Tests and major projects** - Approximately two tests or major projects will be assigned each quarter. For each test, students will be given a study guide to complete during class and to review for homework. **Students are expected to use the study guide to prepare for the test, and will be allowed to use the study guide during the test itself.**

**Homework:** Students will have homework 1-2 nights each week. Homework assignments should be recorded in your student's agenda. Homework will be turned in or checked at the beginning of class. Late homework assignments will receive partial credit: 10% of points will be deducted for each day the homework is submitted after the due date.

## Missing Work Policy

It is the **student's responsibility** to complete and turn in missed work, and to catch up on missed classwork. All classwork and notes will be maintained in a folder in class. Students who need help completing assignments can stay for homework center, or make arrangements to meet with me after school.