

6th Grade Science – Bayside Middle School

Mrs. McGrath

Background Info:

The KnowAtom curriculum Bayside Middle School has adopted is designed around three core principles:

1. Content knowledge- scientific concepts and vocabulary- can be taught alongside science and engineering practices.

All units begin with non-fiction reading covering core concepts and knowledge and their relevance in the real world. Students will use this knowledge to engage in formulating questions or problems that can be answered through experimentation or the engineering design process.

2. STEM practices offer critical opportunities for students to develop higher order thinking skills.

This occurs through Socratic dialogue and hands-on experimenting and prototyping. Students will form hypotheses, develop their own procedures for experiments, collect and analyze data, evaluate conclusions and engineer solutions to solve problems.

3. When students can be scientists and engineers in the classroom, they get a glimpse of their own creative potential.

Students have the opportunity to seek out their own answers. They have the freedom to experiment, make mistakes, and go back to the drawing board to try again. Students will work together collaboratively engaging in scientific argumentation, sharing results and giving peer feedback. This collaboration challenges students to think through their methods and reflect on their outcomes, as well as the outcomes of others, and to evaluate both.

Units:

Gravity & Motion
Atoms & Molecules (My Fave!!!)
Satellites
Climate & Human Activity
Landforms
Biodiversity

If any of these unit topics look familiar – like maybe you studied that in 5th grade – it's because you did! But don't worry, it won't be boring. We'll take what you know already and expand on it even more!

Our Focus:

Science and Engineering Practices

- Asking questions & defining problems
- Developing & using models
- Planning & carrying out investigations
- Analyzing & interpreting data
- Using mathematics & computational thinking
- Constructing explanations & designing solutions
- Arguing from evidence
- Obtaining, evaluating & communicating information

The curriculum is built on a spiral model so that students receive instruction in biology, physics, chemistry, earth and space science and ecology topics each year of middle school.

Materials:

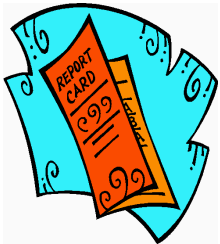
- Lab Notebooks
 - *As part of the expectation that students will behave as scientists, they will be required to keep a scientific journal in a composition notebook to record the process of their experiments. Journals will be provided and will be kept in class.*
- Lab Manuals
 - *Students will be provided a lab manual for each unit. They are small books containing nonfiction readings and other lab/experimental information. Students will be required to bring these to class each day. A PDF version of each book will also be posted on Google Classroom at the beginning of each unit.*
- General Supplies
 - *Students should have general supplies, like pencils, pens, coloring utensils, and a folder. These things should be brought to class on a daily basis.*



Expectations

We have LOTS to learn and experience during our class time. Students will be offered a variety of learning methods and many various tools and resources through which to learn (LABS!). I expect students to give it their all for the entirety of each class period with intense effort and little horseplay. When homework is assigned, students will complete it the best they can and on time.

Grading



At the end of each trimester, students will receive both an academic grade and an effort grade. I will do my best to correct assessments and update Infinite Campus in a timely fashion. Students are responsible for monitoring Infinite Campus throughout each trimester to ensure that all work is turned in. Please ask me if and when you have questions about your scores – sometimes the mistake is mine!

Academic Grade Categories

Investigations and Labs (35%)

Concept Checks (35%)

Concept Checks are end-of-unit assessments. Unit lessons will prepare you for this assessment. In the event you would like another opportunity to show your ability, retake options will be explained after scored concept checks are returned.

Daily Learning Activities (20%)

MobyMax/EdPuzzle (10%)

Effort Grade Considerations

Homework Completion

Collaboration

On-Task Time

Did student make attempts for extra help/retakes during points of difficulty?

Google Classroom

Communication of assignments, due dates, etc. will be done through Google Classroom. Students will join a Science Google Classroom, which will allow students to see due dates and necessary handouts or class information. Parents -- please see specific instructions from Bayside Middle School's website so that you can access your child's Google Classroom.