

Adam Azim
74 Larch Road
no
Cambridge, MA 02138
Birth date: 10/30/2010
Grade level: 8th Grade

2024 - 2025



Cambridge Friends School
5 Cadbury Road
Cambridge, MA 02140
617.354.3880
cambridgefriendsschool.org

8th Grade Science - Carolyn Sohn

		Gr 8 Fall
Comments		
Subject description		
<p>Eighth-grade science begins with an exploration of chemistry. In the first unit, "Properties and States of Matter," students gain an understanding of the molecular motion of matter and how scientists classify matter. In this unit, students explore the first inquiry investigation in which they write and implement their own lab procedure to answer the investigation question: "What happens at a molecular level when thermal energy is added to a substance?"</p> <p>Students then explore the foundational elements of chemistry: atomic structure and the periodic table. Students are then introduced to the basic structure of atoms and the properties of subatomic particles, then take time to explore the periodic table once they understand how to interpret terms like "atomic mass." The periodic table is taught using both digital and physical exploration activities as a tool for understanding chemistry and how elements behave.</p> <p>Students each do a deep dive into one element through the "Element Baby Book" project, in which they "adopt" an element and create a scrapbook-style "baby book" using research they do on that element's history, properties, and uses. By the end of this project, students demonstrated a deeper understanding of an element's structure and properties, as well as connected that element to similar elements on the periodic table.</p> <p>The next unit covers atomic bonding and chemical reactions. Students start by learning different types of bonding through a variety of digital simulations and physical activities. Once the bonding concepts are mastered, students learn more about how breaking and forming bonds connect with chemical reactions. Chemical reactions are brought to life through teacher demonstrations and hands-on labs. The unit includes the lab investigation: "Conservation of Mass: How Does the Total Mass of the Substances Formed as a result of a Chemical Change Compare With the Total Mass of the Original Substances?" This investigation brings to life paper-and-pencil chemical equations by giving students the opportunity to carry out several chemical reactions.</p> <p>Students tackle the final chemistry unit, acids and bases, after winter break. This unit pushes students to build upon their understanding of chemical reactions by adding on the concept of acid-base reactions. This unit incorporates inquiry activities and focused lab investigations, such as a cabbage juice pH lab. In the cabbage juice lab, students classify known household substances such as vinegar and soap as strong/weak acids or bases by using the juice of a red cabbage. Students create and test their own cabbage juice color pH scale, then test the scale using substances with known pH values.</p>		
Narrative 2024-2025		
<p>Adam clearly loves science and engages with the lesson in every class. Adam often likes to talk through concepts and assignments with the teacher prior to writing down answers, preferring verbal communication to written. Adam tends to need encouragement to then transcribe what was expressed verbally. Adam occasionally forgets about a homework assignment but is always able to demonstrate an understanding of the material when prompted. During labs, Adam's strength lies in having strong conceptual knowledge of the topic at hand. However, Adam tends to need teacher support in order to work effectively with others. Additionally, Adam's post-lab assignments don't typically express the depth of understanding that Adam showed during the lab itself. Adam took great pride in the element baby book about titanium. Adam had unique ideas on how to approach the assignment and produced a project that fulfilled all requirements while including many moments of humor. Going into the second half of the year, Adam is encouraged to continue working on putting orally communicated ideas to paper in order to capture them for the assignment.</p>		