

**Grade 6 Science**  
**Engineering Internship Unit – Earth’s Changing Climate**  
**Family Letter**

Dear Families,

Your student is about to start **an Engineering Internship unit as a follow-up to the Earth’s Changing Climate unit** in science class. This unit is part of the Amplify Science program, which is our adopted middle school science curriculum. Amplify Science is split up into units about different areas of science. In each unit, students start by wondering about something that happens in the real world. They investigate, talk, read, write, and think like real scientists and engineers in order to figure out how and why that thing happens. We hope you can enjoy discovering new ideas along with your student!

In this unit, students are immersed in an Engineering Internship. As civil engineering interns at Futura Engineering, they learn about The Design Cycle and apply their understanding of energy and climate science to create roof modification designs for a city in the desert. Students consider two roof types, white and solar, and design a proposal of roof modifications the city could implement to reduce the city’s climate impact.

The project asks students to consider three criteria: reducing climate impact, preserving the city’s historical character, and keeping costs low. Students use the RoofMod Design Tool to collect and analyze data, complete iterative tests, and learn about isolating variables. By the end of this unit, students can describe engineering practices and compose a written proposal that supports their optimal design for making the city more environmentally responsible, while managing the trade-offs of each of the project criteria.

Although it may be challenging or even frustrating for students to puzzle about and figure out the solution to this engineering problem, students don’t need to have all of the answers in order to engage in questioning, investigation, data collection, and sensemaking opportunities in the instructional materials that are provided.

Thank you for helping to support your student in their science learning during remote learning!

*Your Child’s Science Teacher*