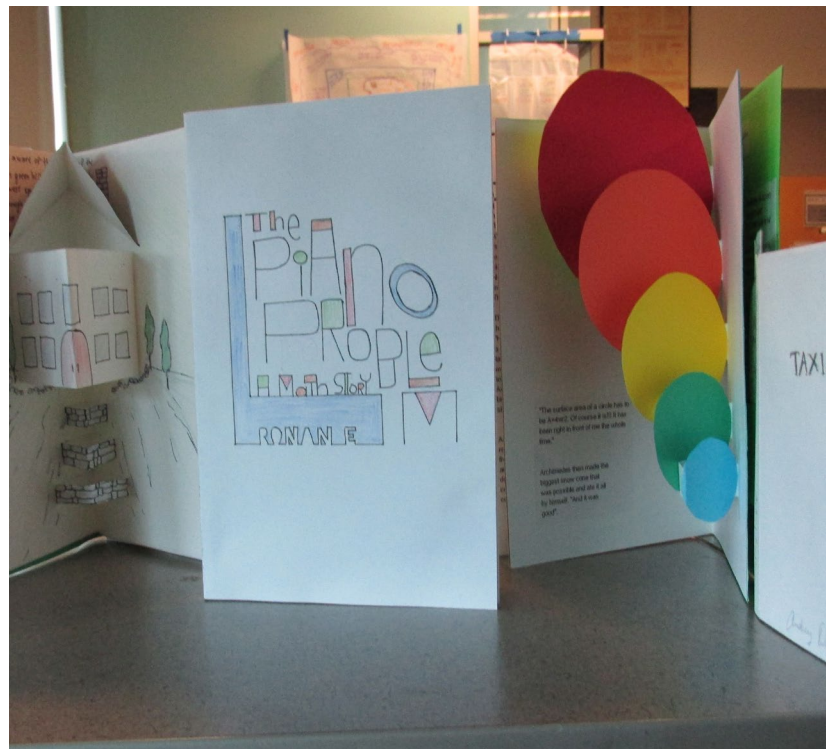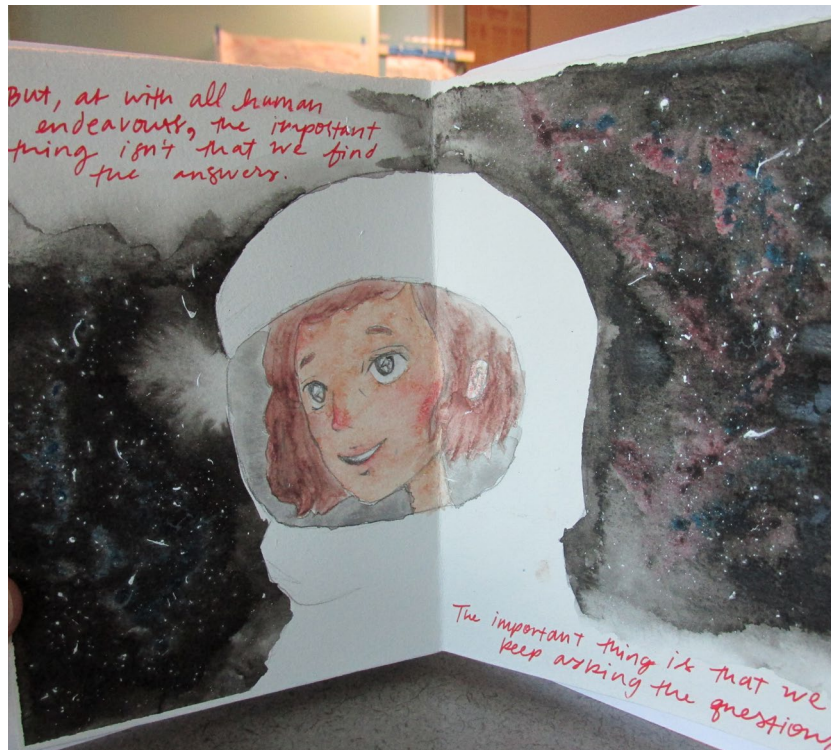## Once Upon A Prime

Mele Sato, 11th grade Mathematics
High Tech High Media Arts

What role did mathematics play in defining history? How did war, famine, and social revolution shape the lives, creations, and advances of mathematicians? How did these events change their perspective of their work and how did they play a part in shaping our history? Students offered answers to these questions in the form of short, narrative non-fiction stories which were glimpses into major moments in the lifespan of mathematics and in the lives of the mathematicians whose innovations catalyzed those moments. After studying paper folding and circle related theorems, students learned the basic elements of creating pop-ups before then teaching these newfound skills to HTMMA 7th graders. Combining pop-ups with their own illustrations and original stories, the students handcrafted books that brought their characters, history, and mathematics to life.

Teacher Reflection
The biggest motivation for this project is my love of storytelling and learning about mathematicians during their most defining moments. I have heard so many fascinating stories of mathematicians. To help shape their writing from an essay to a story I asked questions like, "What was it like living at that time?" "How would she have gotten from Berlin to London to speak at the symposium?"or "How would you have felt if your life's work was considered blasphemy?" Every year I learn something new from reading my kids' stories that pull me into the often esoteric world of mathematical history. Through their narrative skill, thoughtful research and perspective-taking, the work of my students hooks me every time, and makes me wish the story would never end.

Student Reflection
Math projects don't always have to be about showing your work to a really complicated word problem, they can be about learning the history of math, learning how to apply the concepts, and having fun with the stories behind the concepts.   —Frida

To learn more about this project and others, visit https://sites. google.com/a/hightechhigh.org/math3/projects