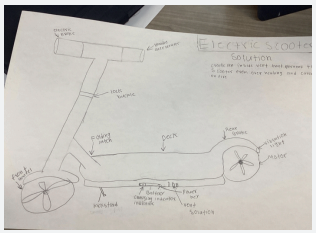
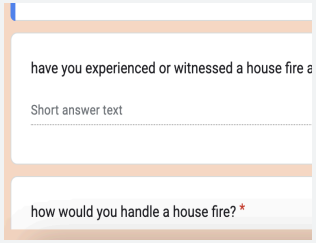
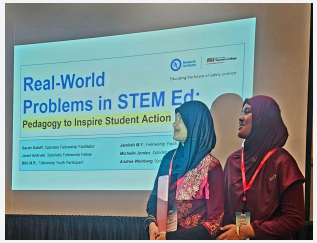
Phoenix Arise: Join Our Neighborhood Call to ACTION

*This **Action Learning Cycle** describes the second year of exploration of all four Xplorlabs.org pathways, with a focus on **fire safety**. Middle school STEM students will continue the **legacy** of last year's students, using futures thinking and co-planning to define local problems, direct classroom learning, and take meaningful community action.*

Instructional Phases	Solve the Problem!	Safety Science	Futures Thinking	Connect to Self	Steps of Action
Visual Storyline					
Timing	4 weeks	4 weeks	4 weeks	4 weeks	6-8 weeks
Overview	**Engineering Challenge:** Students will work with community partners to investigate what causes Li+ battery fires (e.g., heat, liquids, puncture, weight, etc.). They will explore key concepts of thermal runaway using Xplorlabs.org videos, and design a safe box to house a Li+ battery. Students must include the materials used, a price point, labels of function and safety features, etc.	**Needs Assessment:** Students will conduct a survey to determine current levels of fire safety knowledge and the safety needs in the community. **Xplorlabs Pathways Exploration:** Students conduct a brief overview of each of the four pathways, determining which they think is the most important based on the Community Needs Assessment.	**Timeline of Change:** Based on the Community Needs Assessment, students create a timeline mapping historical events, current issues, and possible future milestones related to areas of interest to help them see connections across time and potential entry points for action – connecting their work to last year's legacy in order to move forward in a relevant, meaningful, and sustainable manner.	**Self-Directed Research:** Students will conduct independent research on relevant topics that they are passionate about. Example topics from this year included local mining operations and kitchen safety. **Systems Thinking:** Students will use systems thinking to explore how individuals are related to campus, city, state, federal, and global systems.	***Planning for Co-Produced Impact* and *Taking Agentic Action*:** Students will co-plan with teachers, staff, community partners, etc. to bridge learning and action with the goal of perpetuating change by educating others, consistently lowering the number of fires in our school district and neighborhoods.
Supporting Documents	Xplorlabs Science of Thermal Runaway pathway	Xplorlabs.org Local news article(s) about fire incidents	*Imagining Preferred Futures* activities	Samples of student research and work (1) (2)	