

**Educate every child, every day.**

“The problems that exist in the world today cannot be solved by the thinking we used when we created them.”

- Albert Einstein



## Shepardson Elementary

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Shepardson  
Elementary School

**We do STEM  
Every Day!**

**How do we  
integrate in all  
areas to be a  
STEM school?**



# Moving Forward on Thinking Pathways

## What is a STEM school?

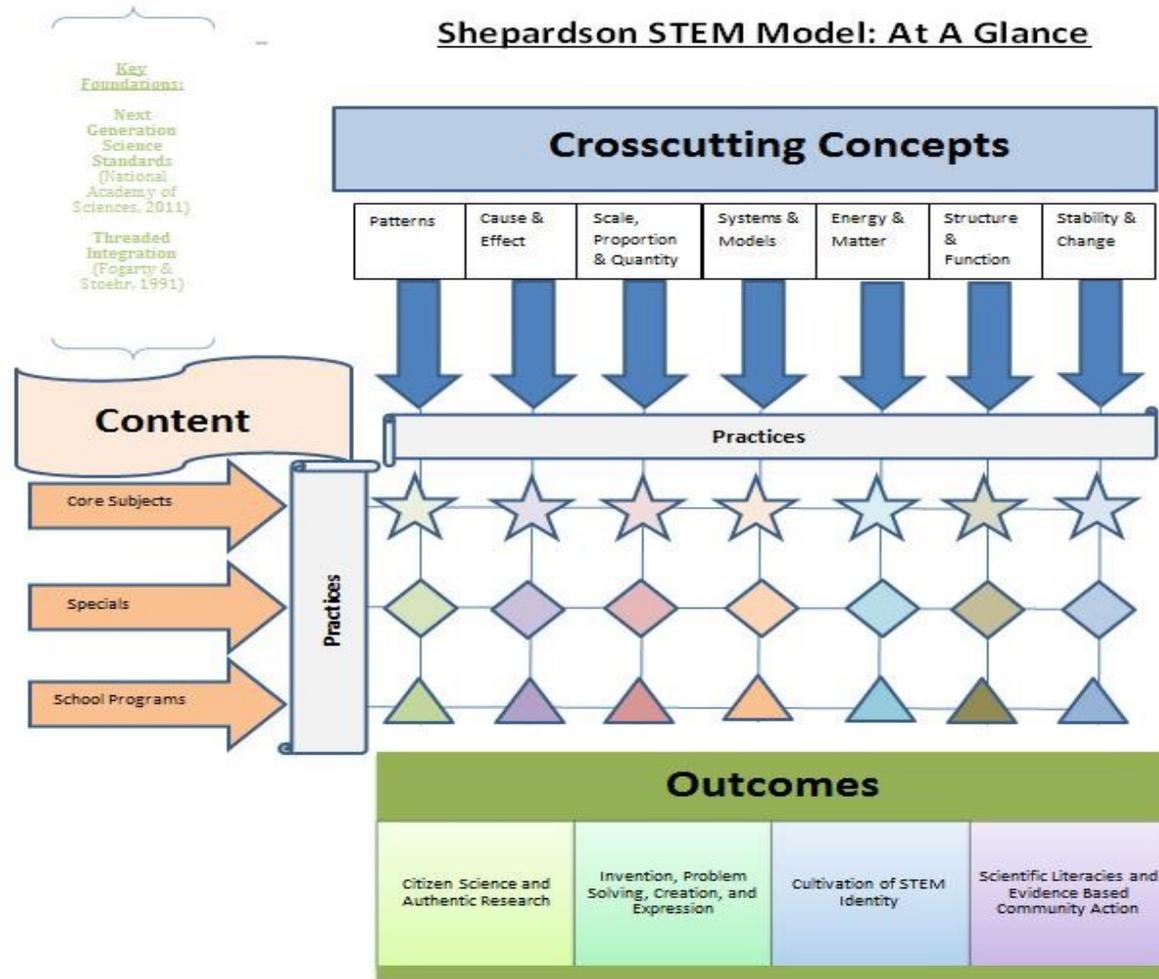
STEM schools are rooted in Science, Technology, Engineering, and Math (STEM) but are more than just these subjects independently. **STEM schools are places where kids think big, are engaged in projects and service, and where their understandings are transdisciplinary**– they cross the boundaries of different subjects to prepare kids for thinking out-of-the-box.

## How do we do it?

To get from one point to another, we need a map of the roads. **Shepardson Elementary** has pioneered this road map at the elementary level, drawing on the **most progressive sources** and **research-based** avenues available to educators to

connect kids with learning in a STEM-centered environment. We have done this by drawing on the **Crosscutting Concepts** presented by the National Research Council in their Next Generation Science Standards. In the

“NextGen Standards”, the Crosscutting concepts serve as vehicles to bridge content (the things we teach and learn) and practices (how we teach and learn). As a STEM school, **Shepardson Elementary** believes that these concepts don’t just belong in the science room– they belong in every room.



## The Shepardson STEM Model

<http://shepardsonstemmodel.webs.com/>

The Shepardson STEM Model is a way of thinking about how STEM ideas, philosophies, and potential can spread beyond the subjects of science, technology, engineering, and math. We believe that a STEM school is an environment where the fundamental ideas of STEM are involved in what we do **every day**, and touch every subject.

The way it happens is by taking the Crosscutting Concepts– big ideas rooted in STEM fields, and using them to draw out connections between subjects, making **pathways of thinking**. For example, we can easily find patterns in math– but if we look, we can also see them clearly in social studies, science, language, art, music, physical education, and even behavior. All of the Crosscutting Concepts have this potential to connect the school day along routes that amplify STEM values.

What we end up with are kids and classrooms that engage in **projects, creative expression, invention, informed community action, research**, and an appreciation of how each and **every person** can use what they know to **change the world**.