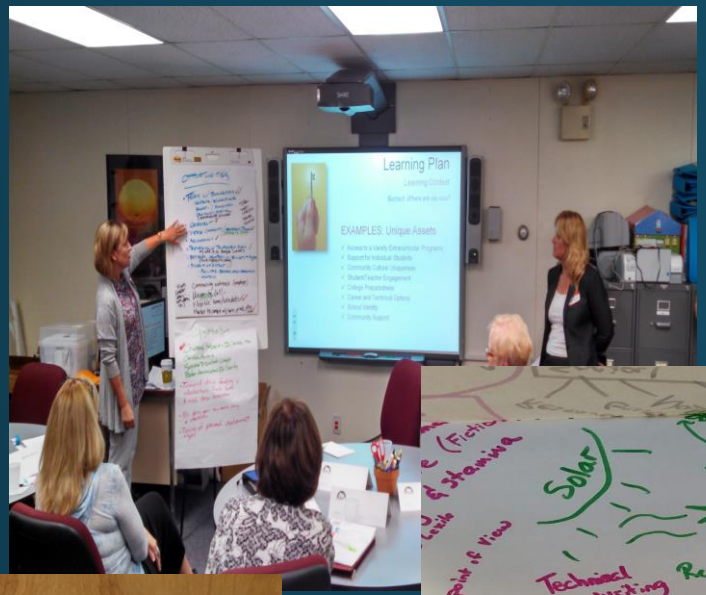
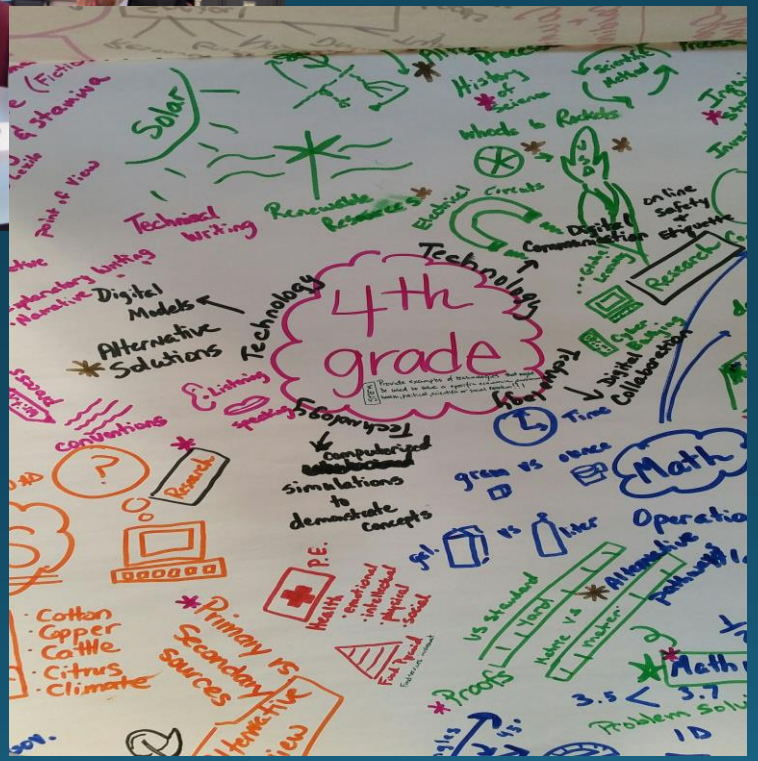
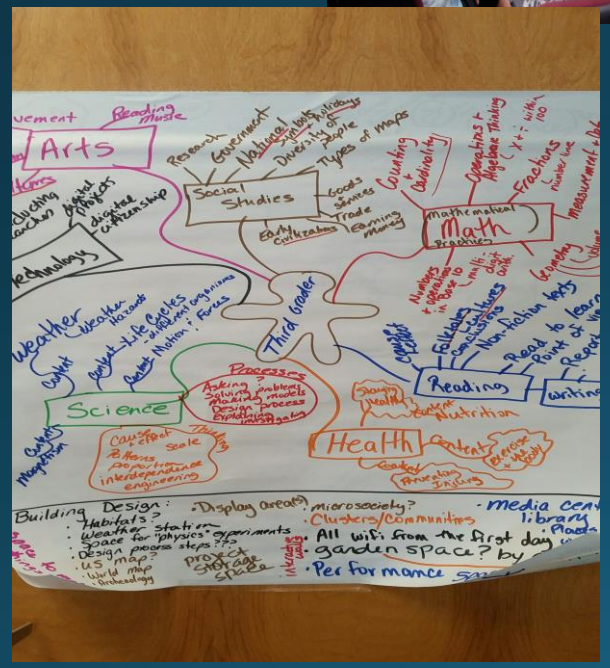
AMPHITHEATER
Public Schools

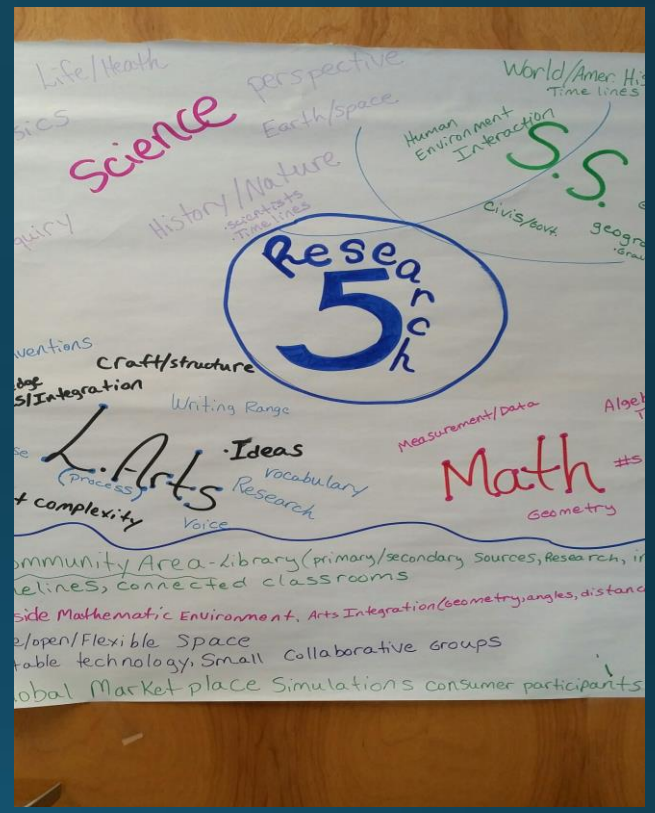
January 12, 2016
New STEM School

Dr. Roseanne Lopez, Chief Academic Officer Elementary Education


Learning Plan
EXAMPLES: Unique Assets


4th grade
Technology
Digital Models
Alternative Solutions
Solar
Technical Writing
Renewable Resources
Simulations to demonstrate Concepts
Math
Cotton
Copper
Cattle
Citrus
Climate
Primary vs Secondary Sources


Arts
Social Studies
Mathematical Practices
Third Grader
Science
Reading
Health
Weather
Building Design:
Habitats
Weather station
Space for "physics" experiments
Design process steps
US map
World map
Birthdays
Display areas
microsociety?
Clusters/Communities
All WiFi from the first day
garden space? by
Performance


Science
Research
5
Math
S.S.
L. Arts
Writing Range
Ideas
Vocabulary
Research
Voice
Geometry
Measurement/Data
Craft/structure
Life/Health
Earth/space
History/Nature
Human Environment Interaction
Civics/Govt.
Time lines
Community Area - Library (primary/secondary Sources, Research,
Collaborative Groups
Global Marketplace Simulations consumer participants

Vision

At "STEM ELEMENTARY" we provide an active child-centered environment where diversity is embraced and learning is personalized. Children are supported and facilitated in their learning by prominent, highly skilled, and collaborative professionals who orchestrate curriculum and resources for self-directed students. The sciences are woven into all aspects of learning providing limitless possibilities. Our students develop and utilize leadership and collaborative skills and learn to communicate effectively. Technology and the arts enrich and celebrate their learning.

Vision

Children are engaged in "hands-on" and "minds-on" relevant curriculum and instruction, in an atmosphere of high expectations for all. We establish a place where the natural curiosity of children is fostered through inquiry and exploration, and provide relevant and meaningful choices which motivate and inspire. Critical thinking, creative thinking and engineering design thinking are taught and developed in all aspects of the learning process. High achievement is the valued outcome.

Vision

To be successful in our endeavors, we build and sustain collaborative relationships both with students and their families, and with our community partners.

Our school is a living laboratory inside and out. We have a sustainable "green" campus which is a model for the community.

At STEM ELEMENTARY, we prepare our students for their future.

Mission

The children of “STEM ELEMENTARY” are critical and creative problem solvers who are empowered to be innovative leaders for tomorrow.

We believe…

- All children are unique, diverse, and learn differently.
- In reaching student through different learning modalities and styles.
- Children are born with a natural curiosity which must be encouraged and sustained in order to foster innovation.
- Diversity enriches our lives and our community.
- Teachers are facilitators of learning by orchestrating curriculum and resources for students.
- Collaboration is foundational to our success.
- In high expectations for all.
- Student directed learning creates life-long learners (a never ending process).
- In student engagement through hands-on and minds-on learning.

We believe…

- In fostering intrinsic motivation to learn in a student centered environment.
- With the support and from home, community and school, each child will be successful.
- Learning is active and engaging where students utilize critical thinking, creative thinking, problem solving, and design thinking.
- Our learning community is enhanced by, and connected through, the arts.
- Technology is a tool for learning, research, and communication of ideas.
- In partnerships with businesses, parents, and the community.
- A green campus will help promote a green community.
- Our school community is a safe and caring environment.
- In preparing our students for their future.

We value…

- Student learning
- Learning that supports the physical, intellectual, emotional and social development of children
- Building strong, caring, positive relationships
- Kindness
- Diversity
- Fairness and honesty
- Responsibility and respect for others
- A curriculum that integrates core subjects, the arts and physical fitness
- Inquiry and exploration

We value…

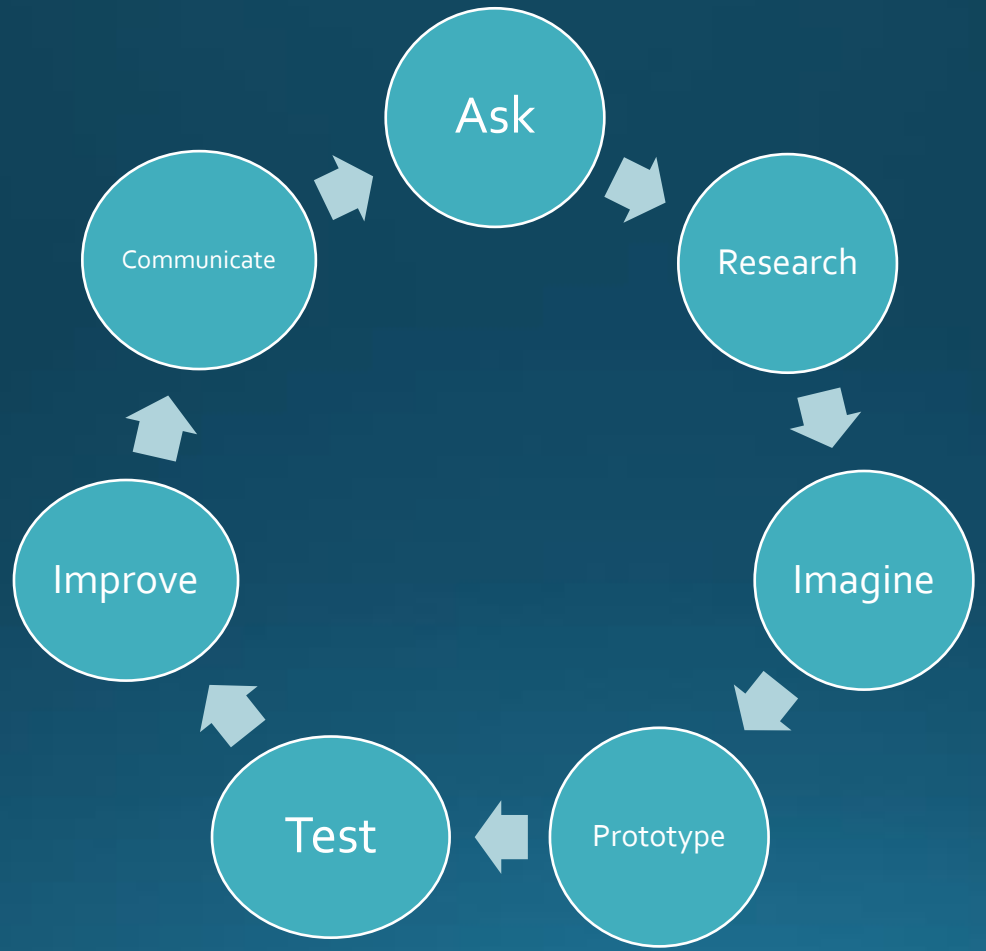
- Creativity
- Critical thinking and problem solving
- Collaboration
- Student directed learning
- Personalized instruction
- Innovative technology
- A sustainable, green campus
- Community STEM partnerships
- STEM education

Building Design and Student Learning Possibilities: Common Areas

Scientific Method

- Identify a problem
- Test
- Analyze data and draw conclusions
- Communicate

Engineering Design Process



Building Design and Student Learning Possibilities

Youngers (Grades K and 1)	Middlers (Grades 3 and 4)	Olders (Grades 4 and 5)
Five senses focus Habitats Wind sock Tactile letters and numbers Numbers Interchangeable word wall, magnetic Metal wall surfaces for magnets Habitats Life cycles Forces in motion	Fraction models (e.g., circle, square, rectangle) Number lines Simple machines Sundial Timeline Water cycle Sound bars Magnetic wall for tube structures Weather station	Angles Visible meters and circuits Weather station AZ, US and World Maps Cache path in the habitat Indoor built in niches for animals in habitats (e.g., crabs, insects, hamster, etc.) Ramps with measurements Walls and tables you can write on Hooks for pulleys Timeline along a wall

Project Lab/Maker Spaces

"Youngers" classrooms are built with a little more square footage to have a lab/maker space designated inside the classroom area.

The "middler" and "older" areas have project lab/maker spaces established in the building.

What do children do in this space? Build, experiment, create, test, improve designs, experiment with materials

Student Experiments and Projects

Hands-On
Minds-On
Learning