Springhurst Elementary

Facilitated by
Wendy Guagenti

What is STEAM?

STEAM is an educational approach to learning that uses Science, Technology, Engineering, Arts and Math as access points for guiding student inquiry, dialogue, and critical thinking. The end results are students who take thoughtful risks, engage in experiential learning, persist in problem solving, embrace collaboration, and work through the creative process. These are the innovators, educators, leaders and learners of the 21st century.

STEAM at Springhurst allows students to connect their learning in these areas together with art practices such as; elements of art and design principles, and national art standards to provide a more expansive pallet of creativity.

4th and 5th Grade STEAM

Inquiry based lessons are designed to engage students through connections that integrate all areas of learning.

Lessons include

- ✓ Anaglyph Technology - learn the illusion of 3-D art and design.
- ✓ Faux Fossils - Explore how fossils are created.
- ✓ Electrical Circuits - Explore parallel circuits and electrical currents.
- ✓ Digital Art - Learn to use Sumi-Paint a digital art program.
- ✓ OZO BOTS - learn simple computer coding to make games and patterns.
- ✓ Kaleidoscopes - learn about light refraction and Symmetry.
- ✓ Architecture - Use research, design and math to develop your own architectural vision.
- ✓ Pendulum Painting - Learn about Newton's law of gravity and rotation through painting.

This Year's STEAM Program Will Include

Grade 5

Stop Motion Videos Through Mixed Media Art

Claymation

Create Your Own Short Video:

Students will choose a meaningful topic that can address ideas such as:

- social and civic engagement
- emotional, or environmental awareness
- altruism or tolerance

Painting With Light

Last years STEAM program facilitated eight projects serving every fourth grade student who signed up.

Twelve to fifteen students were selected for each each STEAM project which lasted approximately 1-2 weeks. Due to a continued overwhelming response, a second group of 12-15 students were added to ensure participation for all.

Approximately 240 fourth grade students attended STEAM last year in lieu of their 25 minute recess time.

GET YOUR

GOING

Enjoy an amazing hands-on 4th grade STEAM activity
from 11:35-12:00 noon during your recess in room M-16.

The Paper Circuit STEAM workshop will begin
Thursday, November 16th through Monday, November 27th.

PAPER CIRCUITS

Create a greeting card that lights!

Light up an LED light
by creating a simple electrical

A paper circuit is a functioning electrical circuit built on a paper surface. Projects can vary from greeting cards to origami to paintings and drawings. What makes them unique is the use of traditional fine art techniques to create a circuit that combines art and functionality.

Workshops will be held in Ms. Guagenti's art room M-16.

Workshop: Paper Circuits November 16th through November 27th
Responses are due Thursday, November 16th.

Please check here _____ if you have not yet attended a STEAM workshop

Student's Name: _____

Classroom Teacher: _____

Parent Signature: _____

ANAGLYPH ARTISTRY

Make a composition for viewing with 3-D glasses!

Turn an original drawing into a three-dimensional anaglyph using red and blue transfer paper with red and blue markers. Then, make the 3-D glasses necessary to make it pop!

An anaglyph is a moving or still picture made up of two slightly offset but identical drawings in contrasting colors (usually red and cyan) that are superimposed on one another to produce a three-dimensional effect when viewed through two correspondingly colored filters. The lenses in anaglyph 3-D glasses were typically red and green until the 1970s, when manufacturers began using red and cyan (blue) lenses.

FAUX FOSSILS

Make a fossil that looks like the real thing!

Experience an archeological dig, right in your own classroom!
Students create fossils the way that nature does
– by making impressions and filling them.

Students will learn a simple plaster-casting method used by both artists and scientists. Then, the fun really begins as the fossils are "unearthed"! The detail is surprisingly accurate and finished pieces look a lot like the real thing.

Students recreated impressions in clay with sea shells, bone fragments, plastic insects, plastic skeletal forms, sticks and leaves.

Part of the fun of making a fossil was mixing plaster to form their casts.


'S OPENING MOVES

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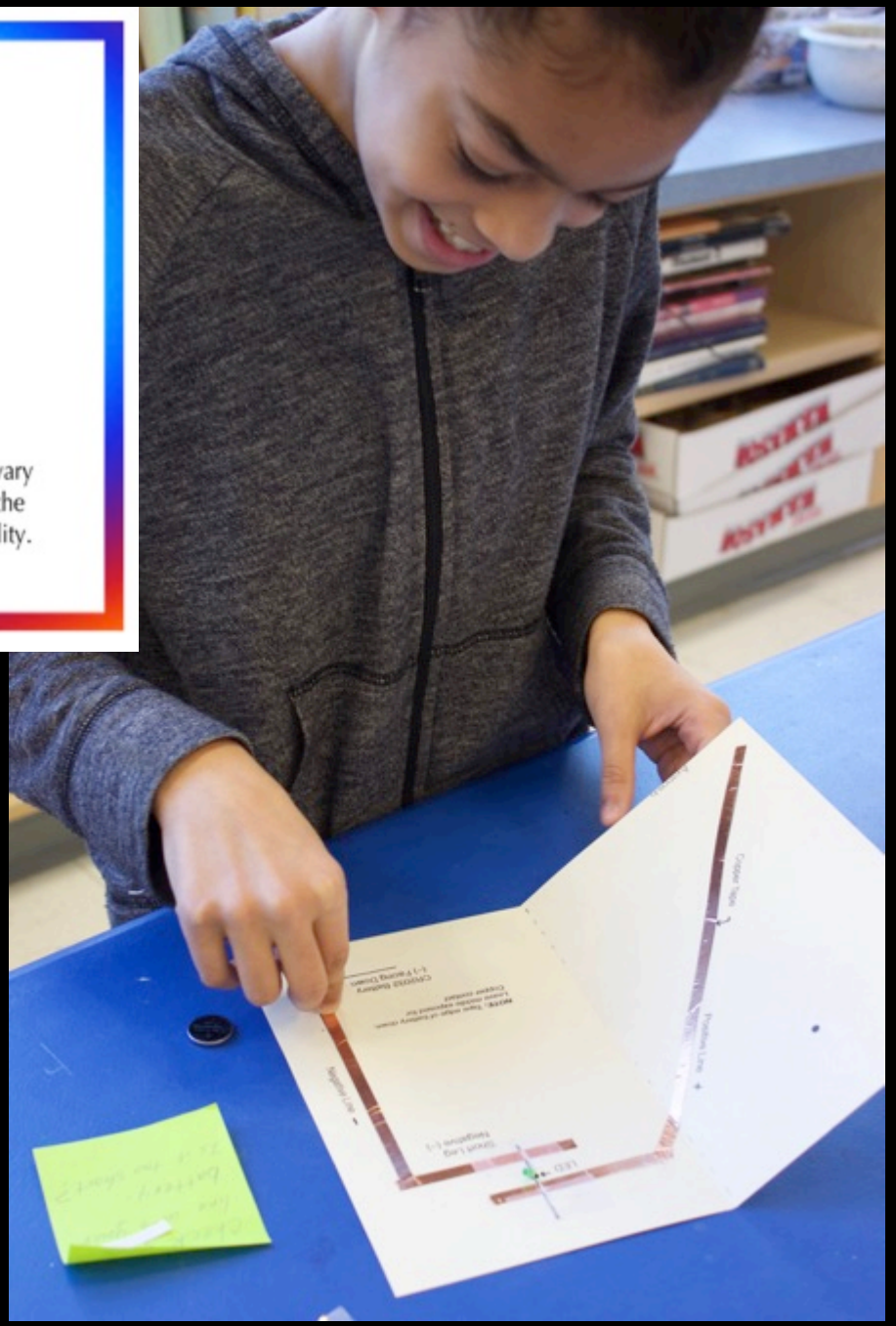


SUMO-PAINT

Learn the basics of SUMO-Paint, a digital art program.

SUMO Paint is a full featured painting and image editing application similar to Adobe Photoshop. SUMO Paint has web-based "paint" features, and has many of the same tools and features as Photoshop but is geared more toward drawing and illustration.


Im gonna work out
VS
Zzzz...
Five mins later...


Weekend Time!!!!!


I'm having
so much
fun!!!!!:(

MAKE YOUR OWN KALEIDOSCOPE

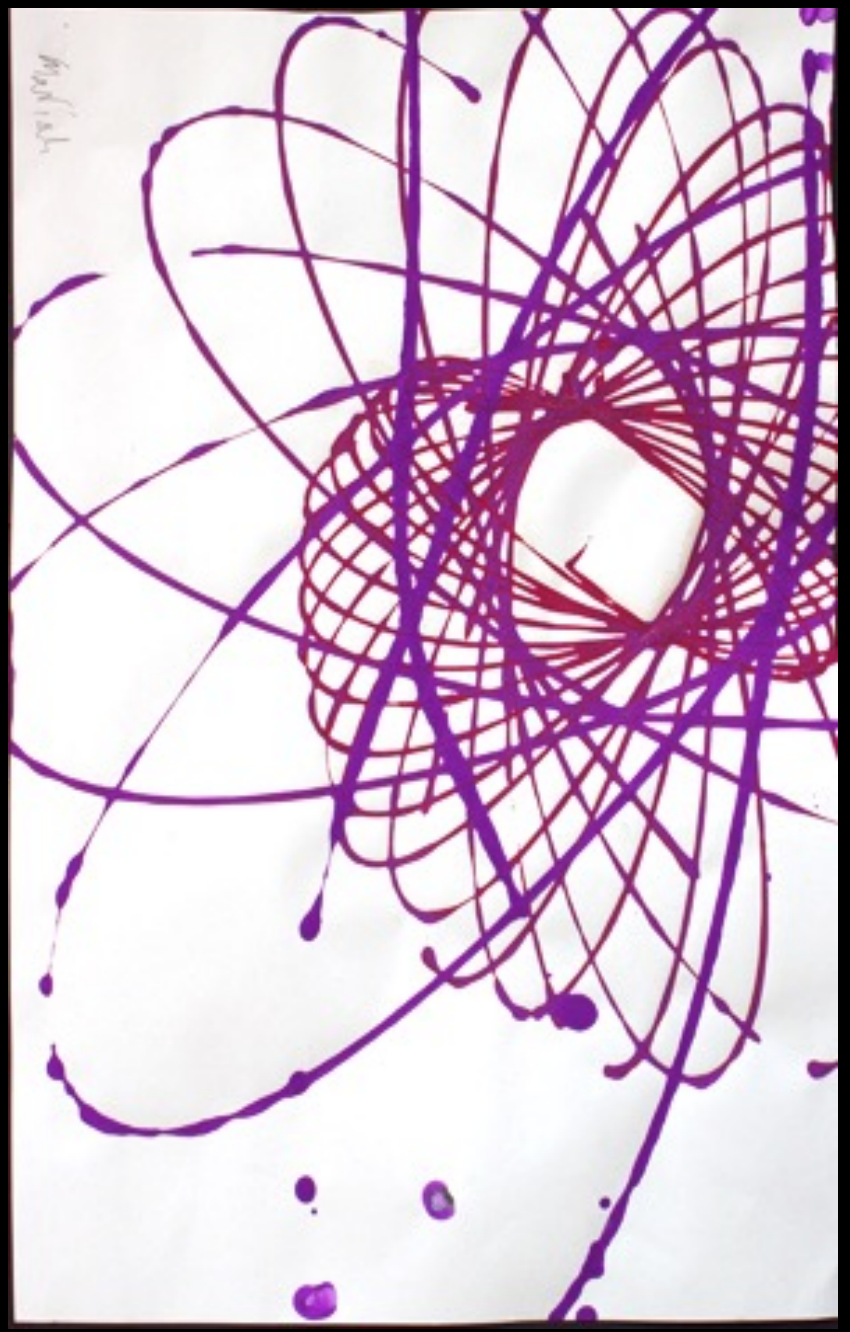
Learn how to make a kaleidoscope in this activity.
It's a fun way to explore light, reflections, and symmetry!

A kaleidoscope is made of two or more mirrors or reflective surfaces positioned at an angle to each other, usually forming a V-shape or a triangle. A tubeorcase -- often looking like a spyglass -- is the body surrounding the mirror assembly. A collection of objects is positioned at one end of the mirrors, and there's an eyehole at the other end. What you see when you look through that eyehole will never be exactly the same twice. Only the portion of the objects that fall within the space of the triangle within the object holder is reflected.

PENDULUM PAINTING

Make an amazing painting
using the force of gravity!

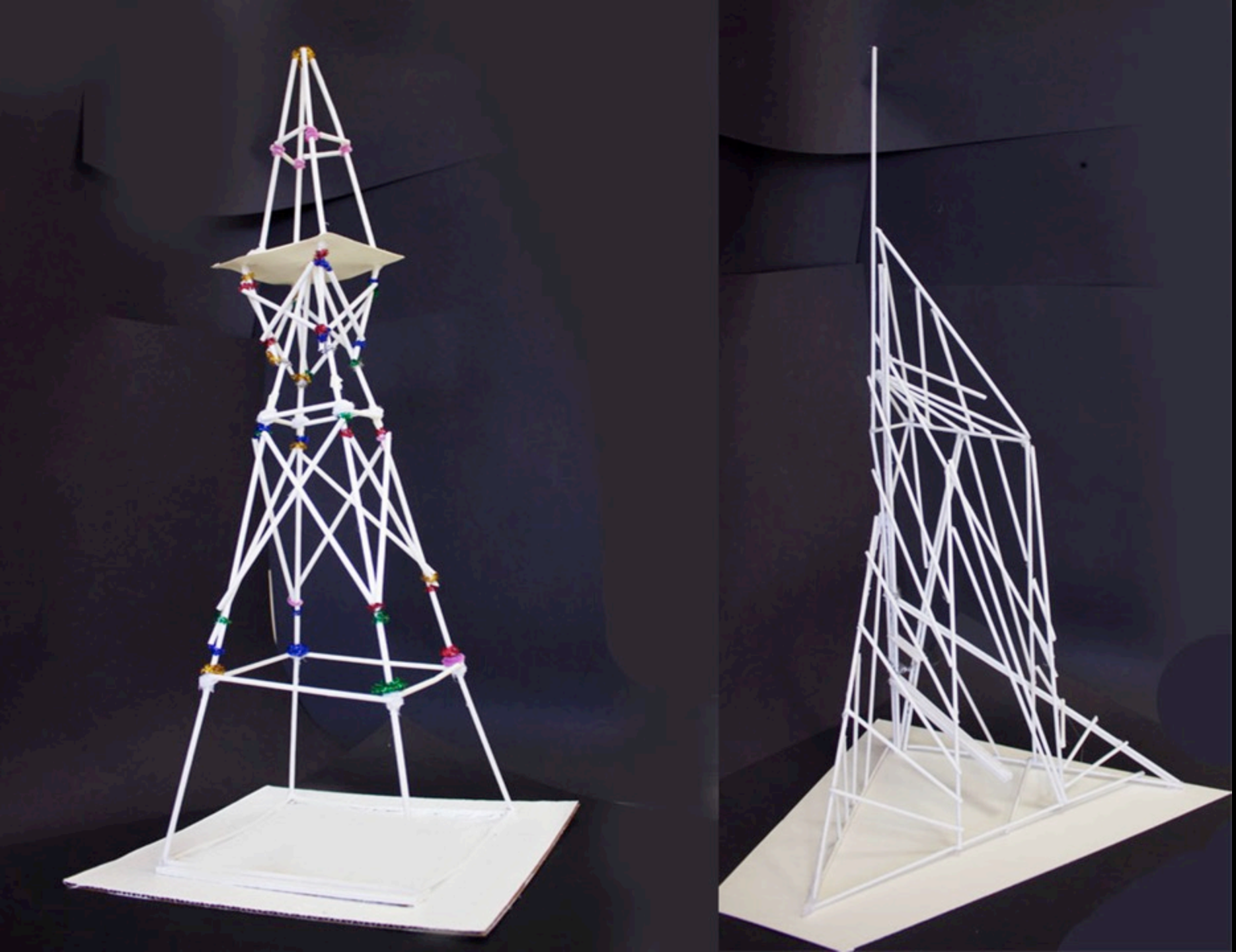
A pendulum is a fixed object hung from a point so it can swing freely back and forth due to the force of gravity. In this workshop we will experiment with paint and gravity to create a beautiful work of art.



ARCHITECTURE

Construct your own high-rise or low-rise building!

Tweak your art, engineering and math skills as you explore your creative side through architectural design. The sky is the limit when you learn how to make beams, joints and foundations that support your unique structure. You will use a variety of materials such as; ArtStraws, corrugated board, colored film, construction paper and more to support your artistic vision.



OZOBOT'S ARE HERE!

learn OZOBOT'S simple color language as you draw mazes, paths, intersections and create entire worlds to explore puzzling playgrounds, fast tracks and intricate labyrinths.

Ozobot is a little toy robot that blends the physical and digital worlds — and teaches kids programming. The company bills the Ozobot as the world's tiniest robot, but we figure there's got to be something smaller than these little guys with light-emitting diodes (LEDs) for brains.