



School
for the Future



Family
Science
Nights
& Community Events



We **Unlock** the Inner Genius in EVERY Child

Our exclusive STEAM SEL approach blends STEM with Art and 21st Century Social and Emotional Life skills. Our approach builds a solid STEM foundation, **inspires creative freedom and innovation**, and builds Emotional Intelligence that **helps children succeed and be their BEST selves**.

Our Family Science Nights and Community Events inspire, educate, and excite several hundred children at one time.

Why partner with iSchool for the Future for your Family Science Night?

- **Hands-on:** A fun, science-based hands-on activity takes center stage at every station.
- **Proven success:** Our events regularly receive glowing reviews and requests for replication.
- **Tied to VA Standards:** Stations align with Science or Math standards at multiple grade levels.
- **Vetted Science Content:** iSchool staff and partners are practicing scientists, educators, and experts.
- **Technology:** We cultivate strong partnerships with organizations and individuals to bring cutting-edge technology (like 3D printers and computer programming) to our Science Nights.
- **Community Model:** Parent volunteers keep costs down and create a sense of community.
- **Customizable:** You can select the stations that work for you. We can incorporate features of your location.
- **Creativity and Art:** Stations feature art and poetry to engage and interest different types of learners.
- **Exclusive 21st Century Skills:** iSchool for the Future is 100% unique because we seamlessly integrate skills from our Emotional Intelligence Character Toolbox into all STEM activities. Links between social and emotional skills and STEM fields are clear and relevant, and help children become happier and more successful learners.

iSchool for the Future is a nonprofit educational organization based in Northern Virginia.

Critical Thinking



"iSchool has it all. It is truly a holistic program that emphasizes the needs of our current and future generations. Something we have been dancing around, but have not yet implemented in real life."

*- Dr. Abed Almala
Professor of Education
Strayer University*



LOGISTICS

Science Nights have 7-10 stations.

Each event lasts for 1.5-2 hours.

Set up time is 1 hour and take down is 1 hour.

Typical events serve 150-350 participants

The Hosting School provides:

- Space (Cafeteria or Gym)
- Custodial services
- Select equipment and furniture (e.g. tables, chairs, power cords, projector)
- 15-20 volunteers

iSchool for the Future provides:

- Staff to oversee the event
- Guidance on recruiting volunteers
- Science equipment and materials for each station
- Detailed directions for volunteers several days before the event
- A brief orientation prior to the start of the event
- Assistance and/or guidance with promotion of the event

Love of STEM



Our events are fun, but offer so much more. Students are challenged to think critically to solve problems and engineer solutions.

Our enthusiasm for STEM rubs off on young and old alike.

Stations purposefully include pictures, writing, in-person explanations, and hands-on activities to appeal to all types of learners and multiple intelligences.

Multiple Learning Styles



Cost

Costs for bringing an iSchool Science Night to your school usually range from \$700 to \$1200, depending on the number and type of stations and activities and the size of the audience. Stations are customizable based on type of materials used, number of take-home samples offered, and level of desired technology. Typically, consumables are prepared for 1-2 stations for approximately 150 students. This is also customizable.



Menu of Activities

iSchool for the Future can put together proposed packages of aligned stations, or you may pick from among our list to design a one-time event or series of Science Nights that meets your needs. Our list is always growing, and we are happy to work with you to design an event that features a specific theme.

Station Name and Description	STEM Category (noting overlaps)
Electrical Circuits Children manipulate a small model to make a circuit and turn on lights	Science – Physics
Playgrounds of the Future Children examine the effect of slope and friction on a slide and use creativity to design playgrounds that solve problems	Science – Physics
Sound energy Children will explore how various materials impact the movement of sound	Science - Physics
Wind Tunnel Children use creativity and observation to meet the challenge of hovering a craft	Science – Physics
Paper Choppers Children fold paper helicopters and change their direction and speed by changing their weight	Science – Physics
Paper Airplanes Children test out various designs for paper airplanes to explore the four forces of flight, all while trying to get their airplanes through a challenging target.	Science – Physics
Catapults Children build individual catapults out of craft materials and test forces	Science – Physics
Earthquakes Children create structures that can withstand an earthquake (Customizable – consumables or not)	Science - Physics
Dry Ice Bubbles Children explore bubbles, surface tension, and gasses	Science - Chemistry
Water Quality Children conduct tests to assess pollutants and dissolved oxygen in water samples	Science – Chemistry
pH Children test individual samples to determine pH	Science – Chemistry
Acid-Base reactions Children explore the classic vinegar-baking soda reactions in color.	Science – Chemistry
Water Properties Children explore the properties of water, such as density, temperature, and movement of molecules	Science – Chemistry
Polymers Children create a take-home bouncy ball	Science – Chemistry
Trees and Climate Change Children measure trees, estimate carbon storage, and use online tools to calculate the value of trees.	Science – Biology

Station Name and Description	STEM Category (noting overlaps)
Candy DNA Children build a double helix out of candy	Science – Biology
Microscopes Children use microscopes to look at cells and/or larger items (using microscopes provided by school; limited sign-up slots)	Science - Biology
Paleontology Children dig for artifacts and log their finds	Science – Biology
Goods from the Woods Children guess which items are made from tree products	Science – Biology
Composting Children play a guessing game to see what materials can be composting and look through real compost for worms and bugs	Science – Biology
Watersheds and Runoff Children sprinkle pollution on vegetated and bare watersheds and then make it rain, and compare pollution and runoff	Science – Biology
Rocks, Crystals, and Light Children will identify local rocks and examine the properties of crystals under light	Science – Earth Science
3-D Printing Children observe 3-D Printers	Technology
3-D Design Software Children practice using 3-D Design Software (using laptops provided by the school; limited sign-up slots)	Technology
Vibrobots Children build their own small robots using art supplies, a motor, and a cell battery	Technology
Innovation Wall Children brainstorm ways to help the world and use various technologies to share those ideas (Twitter, Presentation software)	Technology
Electronics Children use a MakeyMakey and their bodies to complete a circuit and make sound	Technology
Aerial drones Students explore aerial drones and aerial photography	Technology
Homes and Energy Conservation Children build homes out of craft materials and use mobile apps to identify energy leaks	Technology
Technology Dissection Children take apart an old laptop or digital device	Technology
Geodesic Dome Individuals collaborate to build a large dome out of recycled paper.	Engineering
Wrecking Balls Children test wrecking balls and forces and design structures to build	Engineering
Toy cars Children use a variety of materials to build their own toy cars and then test them on a ramp	Engineering
Marble Roller Coasters Children use paper plates and foam pipe pieces to create coasters that send marbles flying into a target	Engineering
Pyramids Children work in teams to build cup towers without using their hands	Math
Kinetic Sand Children relax while exploring textures and shapes in sand	Math
Mathematical Patterns in Nature Children explore fractals and Fibonacci	Math
Mobius Magic Children make Mobius strips and are amazed when they cut into chains and necklaces	Math
Balanced Sculptures Children use clay and other art supplies to create sculptures that are balanced and won't fall over	Art

Station Name and Description	STEM Category (noting overlaps)
Oobleck Art Children make and play with colored Oobleck, and create a group Jackson Pollock-esque piece of art	Art
Scientist Circle Children explore how their individual intelligences relate to science, science careers	STEM - General
Cars on a Ramp Children use cars on an adjustable ramp to make predictions	STEM - General
International Costume Photo Ops After learning about famous scientists from around the world, children can take photos in costumes from other countries	Culture

All stations also have an explicit connection to one or more Practice for Scientific Investigation (Science Standard 1) and multiple Math, Science, and/or Social Studies standards. Most stations integrate art or creativity. All stations integrate Social and Emotional Life Skills from our Character Toolbox.

“Renovate, Innovate” Theme

Is your building being renovated or going under construction? Our “Renovate, Innovate!” theme illustrates various biological, engineering, physical, and social aspects of construction, including planning and environmental impacts of a renovation. It is a wonderful way to make children active participants in the renovation and use the construction as a real-life learning opportunity. Amongst other things, children can:

- Have close-up experiences with the smells, sounds, and textures of construction
- Examine how different types of windows impact energy use and efficiency
- Calculate how many dump trucks will be needed to move a pile of dirt
- Model the purpose of silt fences

iSchool [is experienced at creating Renovation-themed science activities](#) and has partnerships with developers and construction companies to ensure that the offerings are relevant and real.

Reviews of iSchool’s Science Nights

Our Science Nights receive rave reviews! We also fully document our activities so you can know exactly what to expect. Our staff are experts in science and project management. [Read about our reviews and past events.](#) **Quote from [The Great Falls Connection](#):** *“These science nights served as a prime example of how to make learning come alive for children.”*

Why bother with Family Science Events?

Family Science events effectively increase understanding of science topics, create interest in science careers, and integrate parents into learning. [Read more.](#) *“The more senses you incorporate into learning the faster the children will learn and the more they will remember. iSchool offers exactly that: experiential learning.” - Forestville PTA President*

Contact us about other programs we can bring to your location:

- **Hands-on Science Lab Classes during the day**
- **Afterschool Science Clubs**
- **Afterschool Enrichment Courses**
- **Library workshops and classes**
- **School Break Camps**