

# Children's Science Center Lab School Field Trip Guide

(Academic Year 2023-24)

Elementary aged children from Pre-Kindergarten through 6<sup>th</sup> grade will enjoy coming to the Lab in Fair Oaks Mall to participate in hands-on activities and challenges related to various STEM Topics in the different experience areas.

- Field trips can be scheduled Monday through Friday according to group size:
  - Field Trips with up to 80 Students: Monday through Friday
  - Field Trips with 81 to 100 Students: Tuesdays, Wednesdays, and Thursdays
  - Note: Reserving multiple dates may be necessary to accommodate large groups
- Field Trips are approximately 2 hours in duration
- The cost is \$13 per Student and \$13 per Parent Chaperone; Teachers are free
- Minimum Field Trip is \$325
- Students are divided into groups of 20 or less to participate in activities in each Experience Area
- The teacher pre-selects an activity for the Experiment Bar and Tinker Shop (see following pages).

# **Experience Areas:**

- 1. **Experiment Bar** STEM Educators lead the students in a *pre-selected experiment* to apply the scientific method by making a hypothesis, doing a hands-on experiment, and observing what happens!
- 2. **Tinker Shop** STEM Educators lead students in the *pre-selected engineering activity* to learn about the engineering design process.
- 3. **Inspiration Hub** Students will have free exploration time after a brief introduction to the hands-on exhibits focusing on different energy sources- including gear table, wind turbines, air rockets, chain reactions, fossil fuels, and renewable energy.
- 4. **Garage** STEM Educators discuss architectural structures, stability, the center of gravity, symmetry, measurements, and surface area during this building challenge activity.
- 5. **Discovery Zone** Additional experience area to accommodate large groups with an age-appropriate activity determined by the Lab.

**Pre-Kindergarten** (ages 4 - 5) – STEM Educators lead our youngest scientists in the Garage with an activity about animals and how they camouflage in their environments; explore the Discovery Zone with the light table and prisms, lighted Pixel Peg wall, and Imagination Playground blue blocks; design and fly hovercrafts in the Tinker Shop; and engage with the exhibits in the Inspiration Hub.

# How do I inquire about or schedule a Field Trip at the Lab?

To submit an inquiry or an application to schedule a Field Trip, please fill out the form: Field Trip Inquiries and Application

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# **Experiment Bar Activity Choices:**

Experiment Bar Grade Level	Description		Key Concepts
Magnetic Slime (K - 6)	Observe states of matter, mix up solutions, and test out a chain-linking chemical reaction to create ooey, gooey, sticky magnetic slime!	VЭ	<ul><li>Scientific Method/Observations</li><li>Physical Properties of Objects</li></ul>
		3-6	<ul> <li>Scientific Method/Observations/Hypothesis</li> <li>Interaction of Substances with Water</li> <li>Properties of Matter</li> </ul>
Floating Rainbow (K - 6)	Anyone can stack blocks, but can liquids be stacked? Create a colorful stack of liquids layer by layer and observe where and how they stack up without mixing.	K-2	<ul> <li>Scientific Method: Observations/Hypothesis</li> <li>Physical Properties of Objects</li> <li>Matter</li> </ul>
		3-6	<ul> <li>Scientific Method: Observations/Hypothesis</li> <li>Physical Properties of Objects</li> <li>Interactions and Uses of Matter</li> <li>Composition of Matter</li> </ul>
Wonderful Watersheds (3 – 6)	Dive into the world of Virginia wildlife! Explore a watershed model and observe how different land surfaces affect the health of waterways.	3-6	<ul> <li>Interaction of Materials with Water/Earth Changes</li> <li>Aquatic Ecosystems/Watersheds</li> <li>Interactions of Humans with a Virginia Ecosystem</li> <li>Human Impact on the Environment</li> <li>Scientific Method/Observations/Conclusions/Solutions</li> </ul>
Ocean Chemistry (3 – 6)	Create a model of an ocean and the Earth's atmosphere, test out a bubbling chemical reaction, and discover what colorful changes in the pH of water tells us about the health of plants and animals that live in it.	3-6	<ul> <li>How Substances React with Water</li> <li>Ocean Ecosystem /Natural Resources</li> <li>Earth's Atmosphere</li> <li>Human Impact</li> <li>Scientific Method</li> </ul>

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# Tinker Shop Activity Choices:

Tinker Shop Grade Level	Description	Key Concepts	
Hovercraft (K - 6)	Students will use their imagination to engineer a model of a flying, falling, or floating hovercraft. Then, test out their hovercrafts to balance the force of the wind pushing up and gravity pulling down.	<ul> <li>Developing and Using Models</li> <li>Motion and Physical Properties of Objects</li> <li>Different Types of Forces on Objects</li> <li>Engineering Design Process</li> </ul>	
		<ul> <li>Developing and Using Models</li> <li>Motion and Physical Properties of Objects</li> <li>Effect of Different Types of Forces on Objects</li> <li>Engineering Design Process</li> <li>Energy and Mass</li> </ul>	
Build a Bot (K - 6)	Discover how robots can help humans by transforming energy into motion. Then, design, power up, and engineer a vibrating robot to complete a task.	<ul> <li>Motion of Objects</li> <li>Forces</li> <li>Machines</li> <li>Engineering Design Process</li> </ul>	
		<ul> <li>Motion</li> <li>Forces</li> <li>Machines</li> <li>Electricity/Circuits</li> <li>Engineering Design Process</li> </ul>	
Build a Bug (K - 4)	Why do some bugs walk, and others jump or fly? Students will explore what features help bugs survive and then use their imagination to design and build a model of a new kind of bug!	<ul> <li>Observations</li> <li>Developing and Using Models</li> <li>FA2</li> <li>Physical Properties and Features of Living Things</li> <li>Basic Needs of Living Things/Habitats</li> </ul>	
		<ul> <li>Observations</li> <li>Developing and Using Models</li> <li>3-4</li> <li>Adaptations</li> <li>Ecosystems</li> </ul>	
Lightning Bug (4 - 6)	Engineer a model of a glowing lightning bug that will allow energy to travel from its power source all the way to its light bulb tail! *This activity can only be chosen for groups of up to 80 students	<ul> <li>Developing and Using Models</li> <li>Energy</li> <li>4-6</li> <li>Electricity</li> <li>Circuits</li> <li>Engineering</li> </ul>	

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# **Field Trip Policies**

# **Field Trip Timing**

The program start and end times listed on the agreement and in the field trip itinerary are firm. The school or group cannot enter the Lab until the designated start time and the event ends at the designated end time.

Maximum Field Trip size: 100 students. Larger groups will be split across multiple visits to accommodate capacity limits.

# **Payment Policy**

Field trips are \$13 per student and parent chaperone. Teachers are free. Minimum Field Trip is \$325. A Deposit of \$150 is due two weeks after booking and the balance is due two weeks prior to the field trip. Payment can be made by credit card or check made payable to: **Children's Science Center**. Mail checks to: 11948L Fair Oaks Mall, Fairfax, VA 22033.

# **Refund Policy**

If the number of attendees on the day of the field trip falls below the reserved count for either students or chaperones, a refund will be provided, but only if the refund amount exceeds the cost of 5 tickets priced at \$13 each (totaling \$65). Additionally, to be eligible for a refund, the total amount paid for the reservation must meet or exceed the minimum field trip cost of \$325.

# **Cancellation Policy\***

The deposit is non-refundable. If the field trip is postponed due to inclement weather, the Children's Science Center Lab will provide the school with an alternate date(s) if one is available. If the school is unable to attend on the next available date(s), the deposit will be refunded. If the Children's Science Center Lab cancels due to reasons other than inclement weather, the deposit will be refunded.

# Accommodations

Please inform the School Programs Coordinator via the Questions and Application form if there are any allergies, medical issues, or special needs. Accommodations can be communicated closer to the field trip.

# **Photography Policy**

The Children's Science Center Lab may take photographs/videos to promote the interactive science center to the community and for training purposes. We do not publish names or other identifying information about you or your students other than an image. If there are any concerns, please inform the School Programs Coordinator via the Questions and Application form.

### **Teacher and Chaperone Policy**

A minimum number of adult chaperones (teachers, counselors, parents) are required to attend field trips for safety reasons. The total number of chaperones must be included on the field trip reservation and paid for as part of the school's payment. The Lab is not open to the public during field trips and no individual payments will be accepted at the door. Chaperones may not bring siblings on a field trip. If a parent or family member chaperone arrives at the Lab via their own transportation, they will not be permitted to join the field trip unless the lead teacher provides us with permission, and they are part of the original school's reservation.

### **Chaperone Requirements for Field Trips:**

Grades Pre-K – 2	One (1) chaperone per 6 students
Grades 3 – 5	One (1) chaperone per 7 students
Grade 6	One (1) chaperone per 8 students

# **Food and Drink Policy**

There is no food or drink permitted around the activity materials for safety reasons.

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