# SCIENCE ON WHEELS



# SCIENCE ON WHEELS PARTIAL DAY PROGRAMMING OFFERINGS

Science on Wheels Partial Day Experiences include a variety of program styles and topics, so there is something for every audience. For a large audience looking for exciting demonstrations, select a Live Science Show. For high engagement interactive learning for just a few student groups, choose Hands-on Workshops. For groups with a wide range of knowledge and time seeking high levels of free-exploration, we recommend the Pop-up Exhibits, which are a great option for libraries and community events.

Programming Option Choose one:	Base price	Add an additional hour of the same programming:
45-minute live science show	\$815	+\$265 (\$1080 total)
Three consecutive hands-on workshops (45 mins each)	\$815	+\$265 (\$1080 total)
Up to three hours with a pop-up exhibit set	\$815	+\$265 (\$1080 total)



Book two Partial Day Experiences back-to-back to extend the fun!

# LIVE SCIENCE SHOW

• Duration: 45 minutes

• Number of Participants: up to 400

Radical Reactions: Heat! Light! Gas! Color change! Flames are blue and green, rainbows exist in glass tubes, and dollar bills catch fire. See our presenter throw fire, watch an ordinary Ziploc turn into an exploding yellow bag, and fall in love with the foam fountain finale in this lively yet fact-filled 45-minute live science show.

### **Program requirements:**

- Large indoor space with at least 12 ft ceiling height clearance.
- Two 6 ft tables.
- Access to water and janitors/nonfood prep sink required.
- Includes controlled fire demonstrations and chemical reactions.
- At least 30 minutes between shows if booking 2 or more.



# **INTERACTIVE EXHIBITS**

- Duration: up to 3 hours
- Number of Participants: up to 300; we recommend breaking into smaller groups of no more than 60 to visit the exhibits at once.
- Requirements:
  - o Indoors or outdoors with a cover
  - o 8-10 tables to put exhibits on
  - Access to electricity
- Note: Exhibit text is in both English and Spanish

**Space Odyssey:** Travel through our solar system and beyond in this exhibit set that explores constellations, gravity, and planetary science.

**Blood and Guts:** Build a skeleton, test your senses, and see specimens up close in this exhibit set that tours the human body.

**Engineering:** Connect gears, engineer bridges, and try electrical engineering in this fun exhibit set that encourages problem solving and building skills.

Physics: Can you overcome the strength of an electric magnet? Watt does it take to make an electrical circuit? From pendulums to periscopes, physics has it all: light, sound, electricity, and motion!

# **HANDS-ON WORKSHOPS**

- **Duration:** 1-3 consecutive workshops; each workshop is 45 minutes long and requires at least 10 minutes to reset materials before next workshop
- Number of Participants: up to 32 participants per workshop (max 24 participants if mobile planetarium)
- Workshop selection: First, select a theme. Then select 1 to 3 workshop titles within that theme.

### SPACE SCIENCE

**Lighten Up (grades K–2):** Discover the properties of light by reading a science story and exploring how light interacts with different materials.

Your Place in Space (grades K-2): What makes a planet a planet? Discover the answer and sort objects from our solar system.

Cosmic Colors (grades 3–5): Space is full of colors! Use diffraction glasses to see the many different colors light can be. Best suited for rooms that can be darkened.

Plan-It Mars (grades 3-8): What does it take to plan an expedition to Mars? Find out and plan one of your own.

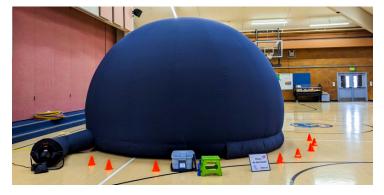
Roving Robots (grades 3-8): Learners code Ozobot robots on maps of the Mars landscape to simulate NASA's data collection on Mars. This workshop supports Computer Science standards.

Spectacular Spectra (grades 5–8): What are stars made of? Find out while examine gases through diffraction glasses in this unique program. Best suited for rooms that can be darkened.

Mobile Planetarium\* (K-8): Our inflatable mobile planetarium brings the magic of the night sky indoors at any time of day! Participants will learn how to identify constellations and how our night sky changes throughout the year.

Maximum 24 people in the planetarium total.

- Up in the Sky (K-5): What's up in our night sky?
   Learn about important stars on this stargazing adventure.
- Star Search (5-8): What are constellations and how do you identify them? Find out and then search for constellations.



\*Please see Planetarium Requirements documents for more information.

# HANDS-ON WORKSHOPS CONTINUED

### **BLOOD AND GUTS**

Creature Features (K-2): Animals have lots of different features! Go on a storybook adventure to touch, hear, and see the different adaptations that help animals survive.

Bone Zone (K-5): Build a skeleton, see x-rays, and learn how your bones and muscles move your body in this anatomy-focused workshop. Includes real bone specimen.

Visual Eyes (3–8): Learn the parts of the eye and how vision works. Includes cow and sheep eye specimen.

Ability to darken room allows for best results.

Piece of Mind (3–8): Learn what each lobe of your brain does and then put your brain to the test. Includes a human brain specimen.

Main Frame (5–8): Learn about general skeleton anatomy and then compare and contrast the skeletons of different mammals. Includes real bone specimen.

### **ENGINEERING**

Machine Makeover (K-2): Become hands-on inventors, creating a Lego Duplo Toolo® machine to help solve everyday problems. As mechanical engineers, you design a machine that will lift beams or scoop rocks!

Critter Coders (grades K-2): As software engineers, learners program a mouse robot to drive through a maze. Design, test and redesign to get to the goal! No coding experience necessary. This workshop supports Computer Science standards.

Radical Robots (K-5): How can robots help us solve problems? Explore the world of robotics while becoming real robot programmers. Kibos® will temporarily take over your classroom!

**Bridge the Gap (3–8):** Reinforce your skills in building and analyzing structures. Test the limits of a K'NEX® bridge and discover what makes it stronger. Will your bridge survive?

Wired Up (5–8): Learn what electricity is and how it flows to turn on lights and power the world around us.



### **PHYSICS**

The Force (K-2): Can a magnet stick to a rock? Be surprised by the attractive force of magnetism! Discover the mysterious properties of magnets through exploration.

**Leaping Lenses (K–2):** Predict and then observe which objects bounce light and which ones bend light as we discover the many places mirrors and lenses can be found. **Room must be darkened for best results.** 

Good Vibrations (K-5): Dive into the wonderful world of sound with tuning forks, musical instruments and more. Investigate how people make and hear sounds. Please note: This lesson can get quite loud.

Charged Up (3-5): What is electricity and how does it travel? Learn about circuits and generators firsthand by designing electric circuits and generating electricity to power lights.

Refraction Action (3–8): Observe the behavior of laser light as it interacts with different materials to understand reflection and refraction. Discover the differences between convex and concave lenses. Room must be darkened for best results.

Electric Magnets (5–8): How are electricity and magnetism related? Find out by generating electricity with magnets and using electricity to make magnets.

Pulley Power (5–8): Learn to lift heavy objects with ease. Design and explore pulley systems to find out how and why this simple machine makes work so much easier. Document camera recommended.