

# GRADE 6

Sixth graders are all about change with a focus on energy and matter. To help them better understand the constant changes in our world, our recommended adventure uncovers the role of the sun, renewable resources and space.

 DEMO

 LAB

 WORKSHOP

## FEATURED ADVENTURE

### LIVE SCIENCE PROGRAM

#### Renewable Resource Challenge

What are renewable and non-renewable resources? Students will investigate the pros and cons of each as they design and construct their own eco-friendly creation.

### DOME FEATURE

#### Cosmic Climate Cookbook

Energy, atmosphere and liquid water are critical ingredients for supporting life on a planet. This original Dome feature explores the cosmic recipe for planetary habitability, what life here on Earth can tell us about our Universe and how our planet is changing from the cosmic perspective.

### EXHIBITION

#### Plants, Pollinators and People

Explore our **Pollinator Garden** and learn more about the relationship between humans and our environment while forming a greater appreciation for the role pollinators play in our world.

Note: The Pollinator Garden will be in full bloom this spring. If the flowers aren't blooming, check out **Rainkeepers** or **EcoLab**.

The Pollinator Garden is sponsored by



## ADD TO YOUR VISIT

### LIVE SCIENCE PROGRAMS

Choose any of these programs to add to your visit. Hands-on labs are approximately 45 minutes long and demonstrations are approximately 30 minutes long.

#### Soaring Satellites Challenge

Discover the fun of scientific investigation while creating your own satellite that can hover in our vertical wind tunnel.

#### Science on a Sphere®: Climate Resiliency

What can we do as individuals and communities to be resilient as the climate continues to change? A gallery educator will guide your students in a data-driven, deep dive into the science of climate change and community resiliency.

#### Radical Reactions

Chemistry is at its coolest when you put it into action! See four types of chemical reactions, learn the difference between exothermic and endothermic reactions, and watch as a colorless liquid solution changes to blue once shaken... not stirred.

#### Scientific Method

Put your observation and prediction skills to the test as we go step by step through an exciting science experiment – what can we learn and what could we do different next time?

SOLS:

6 - 1 2 3 4 6 7 8 9



# LIFE SCIENCE

Life Science students focus on questioning their world. To help students better understand the natural world around them, our recommended adventure investigates change, cycles, patterns and relationships in the living world.



DEMO



LAB



WORKSHOP

## FEATURED ADVENTURE

### LIVE SCIENCE PROGRAM

#### Owl Pellets

Where do owls belong in the food web? Are they a predator or prey? Students will find out when they become wildlife biologists and dissect an owl pellet. Can students see *hoo* was for dinner?

### DOME FEATURE

#### Wild Africa

Take a spectacular ride across Africa and learn how water shapes life in the wildest continent on Earth. Plunge into an adventure alongside elephants, lions, lizards, crocodiles, gorillas, flamingos and more on an epic excursion.

### EXHIBITION

#### Creature Curiosity

Explore some local and some not so local critters in our **Animal Lab**. How is a scorpion similar to a spider? Which animal can camouflage itself? From skinks to snakes we've got a lot of creatures waiting to meet you. Then head to our **EcoLab** to watch honey bees come and go as they search and bring back pollen or nectar to the hive. Can you find our queen?

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#### Amazing Animals

Have an up-close encounter with snakes, cockroaches and rats! Find out what different animals need to survive in their environment. Learn how changes over time have influenced the way living things look and behave today. And come on, who doesn't love animals?

#### It's in the Genes

Why do we look like we do? Explore the world of genetics and see how characteristics get passed on from parents to offspring. Learn about how genes, heredity and environmental factors influence the way organisms look.

#### Science on a Sphere®: Climate Resiliency

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SOLS:

LS - 1 3 4 6 7 8 9 10 11 12 13



# PHYSICAL SCIENCE

Physical Science students focus on unraveling the secrets of matter and energy. To help students better understand these science principles, our recommended adventure delves into changes, force and motion, and energy.



DEMO



LAB



WORKSHOP

## FEATURED ADVENTURE

### LIVE SCIENCE PROGRAM

#### Mass and Motion Challenge

Work in groups to build a bobsled and time how long it takes to travel down the track. What variables can be changed to make it go faster or slower?

### DOME FEATURE

#### We Are Stars

Journey 13.8 billion years through time and space to discover our explosive origins. What are we made of and where did everything come from? Learn about our cosmic chemistry by following the formation of hydrogen atoms to the synthesis of carbon and beyond. See stars explode and planets form as you explore the secrets of the universe alongside the Time Master, a cheeky Victorian guide leading this steampunk-inspired adventure.

### EXHIBITION

#### Speed

Think you know fast? Explore a variety of surprising machine speeds, compete with your friends and see who has the fastest fingers and use the speed of light to instantly measure distances with amazing accuracy. Featuring the SR-71 Blackbird supersonic jet, Speed displays the incredible intersection of motion and time across a world of science and technology.

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#### Sound Science

Explore the world of music and the science behind sound. Construct a *musical* instrument and learn about resonance, vibration, frequency and pitch.

#### Supercool: Liquid Nitrogen

How do solids, liquids and gases react to super cold temperatures? Make predictions and observations as pennies shatter, balloons shrink and plants crumble.

#### Static Electricity

Experience 100,000 volts of electricity from the Van de Graaff generator in this hair-raising demonstration that explores lightning and the forces between charges.

SOLS:

PS - 1 2 3 4 5 6 8 9 11