

Summer Courses 2017



Museum of Science®

Morning and Afternoon Courses

GRADES 1 – 2

Animal Adventures

From tails to wings to scales, learn what makes animals both different and alike. Investigate what animals eat and where they live through creative play, crafts, and stories. Explore Museum exhibits such as *A Bird's World*, *Natural Mysteries*, and the *Butterfly Garden*.

Students will not be handling or touching living animals, but will have the opportunity to observe and learn about some of the exciting live animals at the museum.

July 24-28 9:00am – 12:00pm

August 7-11 9:00am – 12:00pm

August 14-18 1:00pm – 4:00pm

Dino Detectives

Have you ever wondered how paleontologists re-create the world from millions of years ago when dinosaurs roamed the planet? Observe a real Triceratops skeleton and a life-size model of Tyrannosaurus rex in our Dinosaurs exhibit. Investigate evidence left behind with real tracks and fossils, and then make your own. Study the behavior of live animals, including reptiles and birds, and see what can be learned about dinosaurs from these animals' behavior.

July 17-21 9:00am – 12:00pm

August 7-11 1:00pm – 4:00pm

Launch It!

Explore force, motion, acceleration, and gravity as you experiment with rockets, catapults, paper airplanes, and more. Design a satellite to float in a vertical wind tube during one of our Design Challenges. Investigate how physics and math can help engineer machines that will blast higher, propel farther, and fly longer!

*This course includes an off site field trip across the street to launch rockets.

July 17-21 1:00pm – 4:00pm

August 14-18 1:00pm – 4:00pm

Magical Science

Learn the physics and chemistry behind magic tricks and optical illusions. Experiment with fun, unusual types of matter like bubbles and slime. Make things change color and move with sleight of hand. Learn about magic in nature with a visit from a live animal. Show off your new magic skills during Friday's family magic show!

July 10-14 1:00pm – 4:00pm

July 31 – August 4 9:00am – 12:00pm

August 14-18 9:00am – 12:00pm

Mini-Mini Med School

Get ready to put on your lab coat, don a stethoscope, and become a doctor! Start by learning medical lingo (stat), building a skeleton, and looking at x-rays for broken bones. Study a sheep's heart and lungs along with our own circulatory system. Learn what we need to do to care for our teeth and keep them healthy. End the week by going on rounds in a mini ER where your family members become the patients. Learn to use basic first-aid materials to help the "wounded."

July 24-28 1:00pm – 4:00pm
August 14-18 9:00am – 12:00pm

MoS Construction Zone

Put on your hard hat and find out what it's like to be an architect or a civil engineer. Learn which shapes make the strongest structures and experiment with electricity and simple machines. Test out different building materials like foam, wood, and clay as you build bridges, towers, and boats.

July 10-14 9:00am – 12:00pm
July 31 – August 4 1:00pm – 4:00pm

GRADES 3 – 5

Animal Engineers

How do bird nests survive severe storms? How does a beaver build its dam? What does an ant nest look like on the inside? Explore the many lessons we have learned about building, designing, and creating from nature's furry friends. Meet some of the Museum's live animals and design enrichment activities for different species!

July 10-14 1:00pm – 4:00pm

Blast Off with Rockets!

Be a rocket scientist for a week! Learn how rockets work through fun, hands-on activities. Test different fuels, engineer different rocket designs and end the week with a bang by shooting off your very own water rocket!

*This course includes an offsite field trip across the street to launch rockets.

July 17-21 1:00pm – 4:00pm
August 14-18 1:00pm – 4:00pm

Bugs and Butterflies

Come learn about the largest group of animals that have made their home on every continent on Earth! Find out what makes an insect an insect, and how they differ from groups like arachnids and other creepy crawlies. We will learn all about butterflies and bees, and figure out how these animals pollinate the plants that humans love. Throughout the week get up close and personal with some of the Museum's live specimens and hunt for your own cool critters outside.

July 31-August 4 9:00am – 12:00pm

Computers and Coding

Learn all about the fundamentals of computer science and programming both on and off screen! You'll get a chance to learn about algorithms and writing code using if/then statements, loops and functions. Come explore how computers and circuits can be used to turn objects like bananas into musical instruments or even make a gummy bear burp! No prior computer programming experience required.

August 7-11 9:00am – 12:00pm

Grossology

Get dirty and experience the gross side of science! Touch dinosaur poop, make snot, and perform a dissection. Meet some of the awesome creepy crawly animals that live at the Museum and find out which environments are the best for growing bacteria. Have fun with these disgusting discoveries!

August 7-11 1:00pm – 4:00pm

Jr. Museum Guide

Ever wonder what it's like to work at the Museum? Go behind the scenes to learn how exhibits are created and how we care for our animals. Learn how to engage guests in science conversations, and put a personal touch on a favorite Museum of Science demonstration. At the end of the week, don a red apron and bring your activity to the Exhibit Halls to show off for Museum guests and your family!

July 31-August 4 1:00pm – 4:00pm

Paleontology: Dinosaurs and Beyond

Explore the exciting field of paleontology as you discover that dinosaurs aren't the only things these scientists dig up. Uncover what fossils can tell us about extinct species, and make a tar pit to sink specimens. Meet the Museum's live animals and learn about their characteristics to help you understand what extinct species were like. Then put your skills to the test to solve a mystery millions of years in the making!

July 10-14 9:00am – 12:00pm

Science Magic

Become a master science magician as you concoct mixtures, read minds, and learn card and coin tricks. Discover the physics and chemistry behind magic tricks and optical illusions. Make things appear, disappear, levitate, and change color using mirrors, chemical reactions, and more. On Friday, show off your new skills during our family magic show!

August 7-11 9:00am – 12:00pm

Science on Screen

Be a part of the Museum of Science film crew and learn how some of your favorite movies are made! Explore the science behind special effects and optical illusions. Film your own stop-motion movie and step in front of a green screen. At the end of the week share your work with your family and friends at the Museum of Science Film Festival!

July 17-21 9:00am – 12:00pm

August 14-18 9:00am – 12:00pm

Space Explorers

Visit outer space without leaving the planet! Blast off to discover a world beyond Earth. Learn about stars, planets, and moons with a Star Lab projection. Create take-home astronomical tools to use in your own backyard. By the end of the week, you will be a real sky navigator and will observe the sky through the Museum's own telescope!

July 24-28 9:00am – 12:00pm

Urban Engineers

Calling all urban planners! We've been asked to design the layout of a brand new city and we need your help! First, you'll explore the basic mechanics of simple machines and how they are used in modern metropolitan areas. After learning about hydraulics, you will design and build a mechanical machine to "power" an important structure, such as lifting drawbridge, elevator in an apartment building or construction crane, for our model of the new city.

August 7-11 1:00pm – 4:00pm

Water Works

You use water every day, but what's so special about this universal liquid? Come learn about water and the amazing properties that it has through experiments and activities both in and around the Museum. Collect and test water from the Charles River, learn about the creatures that rely on water for their survival, see how humans are impacting this precious resource, and find out what you can do to help!

July 24-28 1:00pm – 4:00pm

GRADES 6 – 8

Chain Reaction

Build a giant chain reaction using recycled materials, Makey Makeys and Scratch. Design your own electrical switch to trigger an action on the computer and in the real world, and combine with others to accomplish a crazy task. We'll livestream our machine in action to share it with the world.

July 17-21 9:00am – 12:00pm

Crime Lab Boston

Many have seen the television show *CSI*, but how much of it is reality? Learn about forensic science and the tools that scientists use to collect and analyze trace evidence. Explore how we use forensic evidence to test our hypotheses on everything from fossil records to today's crimes.

July 10-14 1:00pm – 4:00pm

Space Beyond Our Sphere

Discover the mysteries of space and time through space exploration in our Planetarium. Build a working Galilean telescope, visit the Museum's Observatory, and learn about all about NASA's latest research projects!

July 17-21 1:00pm – 4:00pm

Glowing Circuit Creatures

Design your own imagined stuffed creature that glows with programmed light effects! Makers will explore e-textiles and learn design, sewing, and electronic skills. The week will start with a series of small projects to learn the basics with needles and (conductive) thread, LEDs and microcontrollers. We'll then put it all together to design and construct your own stuffed toy complete with a sewn soft circuit.

July 10-14 9:00am – 12:00pm

Full Day Courses

GRADES 6 – 8

Mini Med School

Be a medical student for a week! Learn about physiology, anatomy, and staying healthy. Explore research and topics that are in today's headlines: cardiac health, exercise and wellness, cancer, and other diseases.

In our **FULL-DAY** offerings for Grades 6-8, we give students more time to experience everything the museum has to offer from exciting behind the scenes experiences, to unique off site field trips, as well as hands on activities designed to encourage creativity, inspire curiosity and build a sense of accomplishment!

July 24-28 9:00am – 4:00pm

Science Chef

Who needs a lab when you have a kitchen? Putting together a recipe often means preparing a chemical reaction. Experiment with ingredients to make baked goods rise, turn liquids into solid food and try out some of the latest culinary trends and techniques. Complete the week with a cooking challenge to see who the next top Science Chef is!

*Please note: This course is not recommended for students with food allergies.

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Summer Courses 2017 Schedule

GRADES 1-2

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July 17- 21	Dino Detectives	Launch It!
July 24-28	Animal Adventures	Mini-Mini Med School
July 31- Aug 4	Magical Science	MoS Construction Zone
August 7 to 11	Animal Adventures	Dino Detectives
August 14 to 18	Mini-Mini Med School Magical Science	Launch It! Animal Adventures

GRADES 3-5

Week	Morning (9:00am-12:00pm)	Afternoon (1:00pm-4:00pm)
July 10-14	Paleontology: Dinosaurs and Beyond	Animal Engineers
July 17- 21	Science on Screen	Blast off with Rockets
July 24-28	Space Explorers	Water Works
July 31- Aug 4	Bugs and Butterflies	Jr. Museum Guide
August 7 to 11	Science Magic Computers and Coding	Grossology Urban Engineers
August 14 to 18	Science on Screen	Blast off with Rockets

GRADES 6-8

Week	Morning (9:00am-12:00pm)	Afternoon (1:00pm-4:00pm)
July 10-14	Glowing Circuit Creatures	Crime Lab Boston
July 17- 21	Chain Reaction	Space Beyond Our Sphere
Week	Full Day (9:00am - 4:00pm)	
July 24-28	Mini Mini Med School	
July 31- Aug 4	Science Chef	