WORKSHOPS

Experiment, investigate & explore STEM topics in depth in a Workshop of your choice. Workshops are led by Orlando Science Center Educators. All workshops have been carefully designed to meet all applicable Florida State Standards.

The experience offers students an opportunity to implement skills being taught in the classroom through inquiry based hands-on 60-minute workshop. There is a maximum of 32 students per Workshop, so your group will be divided accordingly.

Please contact Reservations for further details at 407.514.2112 or classes@osc.org.

PRE-K / VPK

Pre-K / VPK
Moving Machines
Children will investigate the six different types of simple machines that make work easier: lever, inclined plane, wheel and axle, screw, wedge, and pulley. They will also use teamwork to build a compound machine to meet a goal.

*Florida Early Learning and Development Standards for Four-Year-Olds: I.D.1; I.D.2; II.A.1; II.B.1; II.D.1; III.A.b.1; III.A.b.3; IV.A.1.a; IV.A.2.a; IV.C.1.c.; IV.C.2.a; IV.C.2.b; IV.F.3.a; V.A.a.3.b; V.A.a.3.c; V.A.b.1.a; V.A.b.1.b; V.A.c.2.a; V.A.c.2.b; V.A.e.1.a; V.A.e.1.b; V.B.a.1; V.B.a.2; V.C.c.1

Little Engineers: Can We Fix It? Yes We Can!
Children will learn about Engineers and the Engineering Design Process through exploring the story ‘Anything Is Possible’ by Giulia Belloni and creating a solution to the storybook problem on their own in small teams.

*Florida Early Learning and Development Standards for Four-Year-Olds: I.B.c.2, II.B.1, II.C.1, II.D.1, III.C.2, IV.A.1.a, VI.A.3, VI.C.1.a, VI.C.1.b

One 60-Minute, Hands-on Lab ..........$440
Additional Labs* ..........................$110

*To be eligible for this pricing, workshops must be the same topic and held consecutively on the same day. Additional workshops that require additional OSC staff will be charged the $440 rate.
KINDERGARTEN

Little Engineers: Can We Fix It? Yes We Can!
Children will learn about Engineers and the Engineering Design Process through exploring the story ‘Anything Is Possible’ by Giulia Belloni and creating a solution to the storybook problem on their own in small teams.

Bee Robotics
Children will be introduced to the basics of computer science and programming with our robot friend, Blue-Bot. They will explore how robots use algorithms as a series of steps to reach a goal.

GRADES 1 – 2

Forces of Nature
Our planet Earth is constantly changing as a result of the many forces of nature. You will discover how the Sun affects these forces. Delve into a vicious volcano, explore erosion and engineer wind-powered objects.
SC.1.N.1.1; SC.1.N.1.3; SC.1.N.1.4; SC.2.N.1.1; SC.1.E.5.2; SC.1.E.5.4; SC.1.E.6.1; SC.1.E.6.3; SC.2.E.6.1; SC.2.E.6.4; SC.2.E.7.5; SC.2.P.8.2; SC.2.P.10.1; SC.2.P.12.3; LAFS.1.SL.1.1; LAFS.1.SL.1.2; LAFS.1.SL.1.3; LAFS.1.W.3.8; LAFS.2.SL.1.1; LAFS.2.SL.1.2; LAFS.2.SL.1.3; LAFS.2.W.3.8

Superworm Science
Dive into life science by investigating superworm behavior through a science experiment. Using the scientific method, collaborate to design and implement an experiment to determine which physical properties superworms prefer in their food.
SC.1.L.14.1; SC.1.L.16.1; SC.1.L.17.1; SC.1.N.1.1; SC.1.N.1.2; SC.1.N.1.3; SC.1.N.1.4; SC.2.L.16.1; SC.2.L.17.1; SC.2.N.1.1; SC.2.N.1.2; SC.2.N.1.3; SC.2.N.1.4; MAFS.1.RL.3.4; LAFS.1.SL.1.1; LAFS.1.SL.1.3; LAFS.1.W.3.8; LAFS.2.SL.1.1; LAFS.2.SL.1.3; LAFS.2.W.3.8

Bee Robotics
Enter the world of computer science and programming using our robot friend Blue-Bot. Follow Blue-Bot as they explore the lives of honeybees and how they communicate with each other.
SC.1.N.1.1; SC.1.N.1.3; SC.1.N.1.4; SC.2.N.1.1; SC.2.N.1.2; SC.2.N.1.3; SC.2.N.1.4; SC.2.P.8.1; SC.2.P.8.2; SC.2.P.8.3; SC.2.P.8.4; SC.2.P.8.5; LAFS.1.SL.1.1; LAFS.1.SL.1.2; LAFS.1.SL.1.3; LAFS.1.W.3.8; LAFS.2.SL.1.1; LAFS.2.SL.1.2; LAFS.2.SL.1.3; LAFS.2.W.3.8; MAFS.1.RL.1.a; MAFS.2.RL.1.1
GRADES 1 – 2: Continued

**Mighty Magnets**
How can an object be pushed or pulled using magnetism? Will the force of a magnetic field extend through non-magnetic materials? Can the strength of magnetic forces be increased and decreased? Find out in this discovery lab challenge as students explore force and motion with magnets!

SC.1.N.1.1; SC.1.N.1.3; SC.1.N.1.4; SC.2.N.1.1; SC.2.N.1.2; SC.2.N.1.3; SC.2.N.1.4; SC.2.N.1.5; SC.2.N.1.6; SC.1.P.1.2; SC.1.P.1.3.1; SC.2.P.1.3.1; SC.2.P.1.3.2; SC.2.P.1.3.4; SC.2.P.8.1; LAFS.1.SL.1.1; LAFS.1.SL.1.2; LAFS.1.SL.1.3; LAFS.1.W.3.8; LAFS.2.SL.1.1; LAFS.2.SL.1.2; LAFS.2.SL.1.3; LAFS.2.W.3.8; MAFS.1.MD.1.A; MAFS.2.MD.1.1

**GRADES 3 – 5**

**STEM-tastic**
Shipwreck! Embark on an Engineering Design Challenge journey through engineering! Solve real-world problems by creating structures with Civil Engineering and experience Electrical Engineering by designing circuits.

SC.3.N.1.1; SC.3.N.1.2; SC.3.N.1.3; SC.3.N.1.4; SC.3.N.1.5; SC.3.N.1.6; SC.4.N.1.1; SC.4.N.1.2; SC.4.N.1.5; SC.4.N.1.8; SC.5.P.1.1.1; SC.5.P.1.1.2; SC.5.N.1.3; MAFS.3.MD.2.4; MAFS.4.MD.1.1; LAFS.3.SL.1.1; LAFS.3.SL.1.3; LAFS.3.SL.2.6; LAFS.4.SL.1.1; LAFS.5.SL.1.1

**Exploring Mars**
Become aerospace engineers as you design and create satellites that will orbit the planet Mars. Analyze simulated Mars soil samples as astrobiologists to determine which plants could grow on the Red Planet. Let’s explore Mars together!

SC.3.E.5.2; SC.3.E.5.3; SC.4.E.5.4; SC.5.E.5.2; SC.5.E.5.3; SC.3.N.1.3; SC.3.N.1.4; SC.3.N.3.2; SC.4.N.1.5; SC.4.P.1.1; LAFS.3.SL.1.1; MAFS.K12.MP.1; MAFS.K12.MP.5; MAFS.3.MD.1.2; MAFS.5.MD.2.2

**Vex Robotics: Detour Ahead**
ROADS CLOSED! How do we navigate our way through a new route? Students will learn the basics of programming and apply their knowledge of maps and measurement while they explore alternate paths with a VEX Robot. Is your team up to this robot challenge?

SC.3.N.1.3; SC.3.N.1.4; SC.3.N.1.5; SC.3.N.1.6; SC.4.N.1.5; SC.4.N.1.6; SC.5.N.1.3; SC.35.CS-CC.1.3; SC.35.CS-CC.1.4; SC.35.CS-CC.1.5; SC.35.CS-CC.1.2; SC.35.CS-CS.2.1; SC.35.CS-CS.2.4; SC.35.CS-CS.2.6; SC.35.CS-CS.2.7; SC.35.CS-CS.2.8; SC.35.CS-CS.2.9; SC.35.CS-CS.6.2; SC.35.CS-CS.6.3; SC.35.CS-CP.2.2; SC.35.CS-CP.2.3; SC.35.CS-CP.2.4; SC.35.CS-CP.2.5; MAFS.4.MD.3.5; MAFS.4.MD.3.6; LAFS.3.SL.1.1; LAFS.3.SL.1.3; LAFS.3.SL.2.6; LAFS.4.SL.1.1; LAFS.5.SL.1.1

**Roller Coaster Physics**
Demonstrate how the forces of inertia, gravity, and friction affect motion while building a roller coaster model. Trace the flow of energy as it converts from potential to kinetic along the track.

SC.3.P.10.2; SC.3.P.11.2; SC.3.E.5.5; SC.3.N.1.2; SC.3.N.1.3; SC.3.N.1.4; SC.3.N.1.5; SC.3.N.1.6; SC.3.N.3.2; SC.3.N.3.3; SC.4.P.10.1; SC.4.P.10.2; SC.4.P.12.2; SC.4.N.1.2; SC.4.N.1.5; SC.4.N.1.6; SC.4.N.1.8; SC.5.P.10.2; SC.5.P.13.1; SC.5.N.1.3; LAFS.3.SL.1.1; LAFS.3.SL.1.3; LAFS.3.SL.2.6; LAFS.4.SL.1.1; LAFS.5.SL.1.1; MAFS.3.MD.1; MAFS.4.MD.1
OFFSITE PROGRAMS
2022 – 2023

GRADeS 6 – 12

OSCSI
Become a crime scene investigator and decipher the evidence to discover the truth! Match ink samples with chromatography, identify mystery unknowns by their physical and chemical properties, learn blood-typing techniques, and create sketches of a suspect using facial composite computer software.
SC.6.N.1.1; SC.6.N.1.4; SC.6.N.1.5; SC.7.N.1.1; SC.7.N.1.3; SC.7.N.1.5; SC.8.N.1.1; SC.8.N.1.3; SC.8.N.1.6; SC.8.N.4.1; SC.8.P.8.4; SC.8.P.8.8; LAFS.6.L.1.3.6; LAFS.6.RI.1.1; LAFS.6.RI.2.4; LAFS.6.RI.3.7; LAFS.6.W.1.1; LAFS.6.W.3.7; LAFS.6.SL.1.1; LAFS.6.SL.1.2; LAFS.7.L.3.6; LAFS.7.W.1.1; LAFS.7.W.3.7; LAFS.7.SL.1.1; LAFS.7.SL.1.2; LAFS.8.L.1.3.6; LAFS.8.SL.1.1; LAFS.8.W.1.1; LAFS.8.W.3.7; LAFS.68.RST.1.3; LAFS.68.RST.2.4; LAFS.68.WHST.1.1; LAFS.68.WHST.3.9; LPSS.68.LAW.02.01; LPSS.68.LAW.02.03; LPSS.68.LAW.02.05

Rise to the Challenge:
Weather Balloon Engineering
Become an aerospace engineer by experiencing the battle between gravity and buoyancy! By collecting data and calculating the opposing forces, teams create a balanced attachment that will suspend a model weather balloon in the atmosphere. Can your team rise to the challenge?
SC.6.N.1.1; SC.6.N.1.4; SC.6.P.13.1; SC.6.P.13.2; SC.6.P.13.3; SC.7.N.1.1; SC.8.N.1.1; SC.8.P.8.2; SC.8.P.8.4; SC.8.N.1.5; SC.8.N.3.1; SC.68.CS-CC.1.2; SC.912.E.7.8; SC.912.E.6.6; SC.912.P.12.4; SC.912.N.1.7; SC.912.N.4.1; MAFS.7.EE.1.1; MAFS.7.EE.2.4; MAFS.912.N-Q.1.3; LACC.6.SL.1.3; LACC.6.SL.2.4; LACC.8.SL.2.4; LACC.68.RST.1.3