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We are able to accommodate budgets and requests of all shapes and sizes. If you do not see what you are looking for within our suite of current offerings, we are happy to discuss customizing a training to best meet your needs. Please call us at 407.514.2112 and ask to speak about Educator Professional Development.

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Orlando Science Center is supported by United Arts of Central Florida, funded in part by Orange County Government through the Arts & Cultural Affairs Program, and sponsored in part by the State of Florida, Department of State, Division of Cultural Affairs, the City of Orlando, and the Florida Council on Arts and Culture. Title VI of the Civil Rights Act of 1964 prohibits discrimination based on disability, race, color, or national origin including limited English proficiency, in programs or activities receiving Federal financial assistance. The Orlando Science Center is a private, non-profit educational facility. ©2019 Orlando Science Center.
What is STEM?

STEM education is an interdisciplinary approach to learning, combining multiple academic subjects with a focus on the real world impact of these lessons. It is about students applying science, technology, engineering, and mathematics in relevant contexts that make connections for them between school, community, work, and the world around them. STEM education provides opportunities to create skills that move students forward to become stronger problem solvers and more creative innovators that can lead tomorrow’s global economy.

STEM activities should be student-centered and teacher-guided, engage students in investigating questions that impact real world problems, allow for inquiry-based learning through hands-on activities, and reinforce 21st Century skills.
All of the workshop times listed in this guide are for content only and do not include lunch. Workshops have a maximum of 30 participants and can be offered on location or at Orlando Science Center. Travel fees are assessed separately.

**STEM Practices, Lesson Guides, and Out-of-School Time Workshops**

**2 Hour Workshop**
$600 per workshop for up to 10 participants; $60 per additional participant

**4 Hour Workshop with Educator Guide**
$1,400 per workshop for up to 10 participants; $140 per additional participant
(Price includes one Educator Guide binder per participant.)

**6 Hour Workshop with Educator Guide**
$1,900 per workshop for up to 10 participants; $190 per additional participant
(Price includes one Educator Guide binder per participant.)

**Skill Trainings Workshops**

**2 Hour Workshop**
$600 per workshop for up to 10 participants; $60 per additional participant

**4 Hour Workshop**
$800 per workshop for up to 10 participants; $80 per additional participant

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EARLY CHILDHOOD WORKSHOPS
PROFESSIONAL DEVELOPMENT

EARLY CHILDHOOD WORKSHOPS

We offer a variety of Early Childhood workshops that are appropriate for schools, centers, day care homes, and agencies that work with early childhood providers.

Customization Options Available!

We are able to accommodate budgets and requests of all shapes and sizes. If you do not see what you are looking for within our current suite of offerings, we are happy to discuss customizing a training to best meet your needs.

STEM PRACTICES

2 Hour Workshops

$600 per workshop for up to 10 participants;
$60 per additional participant

Literacy & STEM

During this workshop, participants will experience STEM lessons and activities that meaningfully integrate age-appropriate fiction and nonfiction texts. Participants will discover strategies to choose and make connections between literature and STEM learning.

Coding in Early Childhood

Participants will explore developmentally-appropriate ways to integrate technology and interactive media into early childhood classrooms. Focusing particularly on pre-coding and early coding skills, educators will experience both unplugged (no computers or tablets) and plugged (using computers or tablets) ways to engage our youngest learners in computer science and technology.

Engaging Early Childhood Families in STEM

Family engagement in STEM learning can be instrumental in a child’s developing interest in STEM subjects. Through this workshop, participants will learn how to host their own Family Engagement Event, as well as strategies to involve caregivers in STEM, both at home and at school.
STEM PRATCIES (CONTINUED)

4 Hour Workshops
$1,400 per workshop for up to 10 participants;
$140 per additional participant
(Price includes one Educator Guide binder per participant.)

STEM in Early Childhood

Participants of this training will understand the essential components of STEM teaching and learning through hands-on activities and peer-to-peer discussions. Educators will experience multiple STEM activities that integrate naturally into early childhood classrooms, while gaining practical application skills that can be immediately utilized in everyday lessons.

6 Hour Workshops

Wee Engineer
$2,350 per workshop for up to 10 participants;
$235 per additional participant
(Price includes one Wee Engineer binder per participant. Pricing based upon purchase price of binder from EiE).

Orlando Science Center is an endorsed site to provide EiE’s Wee Engineer Professional Development Workshops. EiE is a program of the Museum of Science, Boston. The Wee Engineer curriculum provides fun, age-appropriate activities for the preschool and Pre-K setting that allow children ages 3–5 to act as engineers. In this workshop participants will learn the pedagogy and structure of the Wee Engineer curriculum by experiencing engineering as a learner and reflecting as an educator.
ELEMENTARY WORKSHOPS
PROFESSIONAL DEVELOPMENT

ELEMENTARY WORKSHOPS

We offer a variety of workshops for elementary educators. The workshops provide a collaborative environment for educators to learn from one another and will provide them with practical skills that can be applied immediately with students.

Customization Options Available!
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STEM PRACTICES

6 Hour Workshops
6 Hour Workshops
$1,900 per workshop for up to 10 participants;
$190 per additional participant
(Price includes one Educator Guide binder per participant.)

FUNdamentals of STEM Learning
Participants will understand that STEM education is an interdisciplinary approach to learning, combining multiple academic subjects with a focus on real-world lessons. Participants will gain an understanding of how STEM lessons develop 21st Century skills as they immerse themselves in standards-aligned student experiences.

Engineering Design Challenges: Deconstructed
Engineering Design Challenges allow students to apply the content that they learn in school in a real-world way. Participants will understand the essential components of creating and implementing standards-aligned engineering design challenges for students. Participants will collaborate to apply the strategies acquired during the training as they design standards-aligned engineering design challenges for their own students.
Creating a STEM Environment
Developing a STEM environment involves looking at available resources, examining assessment practices, encouraging family engagement, and a variety of instructional strategies. Participants will understand how facilitation can impact the STEM experience and examine different STEM instructional strategies to identify their optimal use. They will look at ways to evaluate student success in STEM through formative assessment tools and how to create a positive learning environment. Participants will collaborate to plan a standards-aligned STEM lesson for their students using a lesson plan template.

Engineering is Elementary
Orlando Science Center is an endorsed site to provide Engineering is Elementary (EiE) Professional Development Workshops to the southeast. EiE is a program of the Museum of Science, Boston. Intensive hands-on training shows teachers first-hand how to embed this curriculum into the classroom and provides the necessary support for success. Each training will focus on one EiE unit which teachers will experience from the learner’s perspective before reflecting on their experience as educators. EiE is intended for use with grades 1-5.

The Maker Mindset
Participants will learn how to incorporate design thinking and project based learning in the classroom through making. Activities will be explored from the perspective of a hands-on learner and educator. Participants will reflect on ways to bring Maker culture to their own schools.
PROFESSIONAL DEVELOPMENT

SECONDARY WORKSHOPS

We offer a variety of workshops for secondary educators. The workshops provide a collaborative environment for participants to learn from one another and take away practical skills that can be applied immediately with students.

Customize your own training today!

Are there concepts that your students are struggling to learn? We can develop a training that includes classroom activities that target the hard-to-reach standards related to these topics!

Educators will experience these lessons as a learner before reflecting as an educator. Participants will receive a lesson guide and handouts for each of the activities completed during the workshop in order to implement them with their own students.

Past educators are saying:

• “Before I came I often felt I didn’t have time to allow students to explore. But I now understand how I can have time to allow my students to explore and learn the concepts needed.”

• “I would definitely like to be part of more of these PDs as I found it extremely helpful and engaging. The labs presented are of good quality and would like to be exposed to more of these. Thank you again for the presentation and the follow up!”

• “I enjoyed the idea of learning from [my students’] perspective. It was a great change and it helped me to see some things I can change in my classroom. This was a huge growth opportunity.”

• “I LOVE this concept & will use it. Reminds me to remember to make science FUN & engaging always!”
STEM PRACTICES

6 Hour Workshops
$1,900 per workshop for up to 10 participants;
$190 per additional participant
(Price includes one Educator Guide binder per participant)

FUNdamentals of STEM Learning
Participants will understand that STEM education is an interdisciplinary approach to learning, combining multiple academic subjects, focusing on real-world lessons. Participants will gain an understanding of how STEM lessons develop 21st Century skills as they immerse themselves in standards-aligned student experiences.

Engineering Design Challenges: Deconstructed
Engineering Design Challenges allow students to apply the content that they learn in school in a real-world way. Participants will understand the essential components of creating and implementing standards-aligned engineering design challenges for students. Participants will collaborate to apply the strategies acquired during the training as they design standards-aligned engineering design challenges for their own students.

LESSON GUIDES

6 Hour Workshops
$1,900 per workshop for up to 10 participants;
$190 per additional participant
(Price includes one Educator Guide binder per participant)

Physical Science
Participants will perform physical science activities designed for middle school students enrolled in their first physical science course. These investigations cover a variety of topics, including buoyancy, gravity, the motion of sound waves, electromagnetism, and the periodic table. This workshop is aligned to middle school physical science standards.

Earth Science
Participants will learn about the factors that have shaped and continue to shape our home planet. The activities address how rivers are formed by erosion and deposition, how thermal energy is transferred through the planet, how humans have an effect on the temperature of a region, and how hurricanes can affect our lives. This workshop is aligned to middle school earth science standards.

Chemistry
Participants will experience model chemistry lab activities that are sure to generate a positive reaction from students. Topics addressed include stoichiometry, electrochemistry, and calorimetry. This workshop is aligned to high school chemistry standards.
OUT-OF-SCHOOL-TIME WORKSHOPS
We offer a variety of workshops customized for out-of-school-time educators. The workshops provide a collaborative environment for participants to learn from one another and take away practical skills that can be applied immediately with students.

Customization Options Available!
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OUT-OF-SCHOOL TIME LEARNING

2 Hour Workshops
$600 per workshop for up to 10 participants; $60 per additional participant

STEM for All

Have you ever wondered how to complete STEM activities at your own organization? Participants will explore the Engineering Design Process and learn how it is a tool that can be used in all walks of life. They will explore a real-world problem in small groups before completing a challenge to put their knowledge to use! Participants will receive an engineering design challenge template to help them apply the strategies gained with their own students.

6 Hour Workshops
$1,900 per workshop for up to 10 participants; $190 per additional participant
(Price includes one Educator Guide binder per participant.)

Engineering Everywhere

This workshop will introduce participants to the Engineering Everywhere (EE) curricula as they experience engineering activities both as a learner and as an educator. As they practice working with the engineering design process and develop questioning strategies to use with their young students they will build confidence in their ability to lead engineering activities. EE units are designed for 6-8th grade learners in out-of-school-time programs.

Modeling Our World with Computer Science

Project G.U.T.S. (Growing Up Thinking Scientifically) is a nationally-recognized program designed for middle schoolers to learn more about the world around them. Students will learn how they can use computer code to model real phenomena in earth science, biology, and chemistry. This workshop will give educators the necessary coding skills to bring this award-winning content to their students.
SKILL TRAININGS (ALL AGES)
SKILL TRAININGS (ALL AGES)

Interested in building the capacity of your teachers or introducing new technologies and maker skills with your students? Participants will gain new skills, learn how to use different technologies, and lead technology or skill based activities with their students. Topics cover a wide range of age groups and grades, from pre-K to high school. Trainings can be adjusted by experience level, from beginner to advanced. Multiple skills or technologies can be combined to create a unique workshop experience. Each skill workshop can be either 2 or 4 hours, depending upon the needs of your school.

We offer trainings focused on a variety of skills and technologies, including but not limited to:

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<td>Each 2 hour workshop will provide an introduction to the selected skill or technology. Participants will understand how to use that skill or technology with students and gain practical application strategies.</td>
<td>Each 4 hour workshop will provide an in-depth look at the selected skill or technology and how it can be used with students. Participants will be given time to learn, explore, and collaborate focusing on how their students will experience the technology or skill.</td>
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Orlando Science Center is proud to be a Regional Partner of Code.org, an organization founded in 2013 with the goal of ensuring that every student in every classroom has access to quality computer science education. Their computer science curriculum can be implemented with students in Pre-K through high school. Ask us about computer science training today!