



**ARCHS' STEAM Institute**  
**Saturday, October 10, 2015**  
**Harris-Stowe State University**



**Institute Schedule (subject to change)**

7:00 a.m. – 8:30 a.m.	<b>Registration (Clay Center)</b>
7:30 a.m. – 8:30 a.m.	<b>Morning Workout (Emerson Center)</b> <i>Zumba: Interactive exercise session</i>
8:40 a.m. – 9:40 a.m.	<b>Opening Session (Emerson Center)</b> <i>Panel discussion</i>
10:00 a.m. – 11:30 a.m.	<b>Breakout Sessions (Clay Center)</b> <i>6 choices based on Infant/Toddler, Pre-K, &amp; Elementary strands</i>
11:30 a.m. – 12:30 p.m.	<b>Lunch (Clay Center)</b> <i>Box lunches can be eaten in classrooms or in the courtyard of the Clay Center</i>
12:30 p.m. – 2:00 p.m.	<b>Breakout Sessions (Clay Center)</b> <i>6 choices based on Infant/Toddler, Pre-K, &amp; Elementary strands</i>
2:15 p.m. – 3:15 p.m.	<b>Breakout Sessions (Clay Center)</b> <i>6 choices based on Infant/Toddler, Pre-K, &amp; Elementary strands</i>

**Registration:**

Begins at 7:00 a.m. in the Clay Center. Please plan to allow time to register, and walk a short distance to the Emerson Center for the Zumba class and the opening session. If requesting clock hours, please have your Missouri or Illinois ID number available.

**Exhibits/Raffle:**

Please take a moment to visit the Institute’s exhibitors in the Clay Center. Also, remember to turn in your raffle ticket. Some great prizes will be awarded. Winners’ names will be posted in the registration area during lunch.

**Clock Hour Confirmation:**

Up to 6.5 clock hours will be awarded. Please remember that you must arrive within the first 15 minutes of each session to earn credit. Be sure to attach your session stickers to the “Certificate of Attendance” that is enclosed in the Institute program book. This will assure you receive credit for the sessions attended and the clock hours earned. Session moderators will be on hand to assist and answer questions.



## Institute Sessions (subject to change)

### Zumba

*Linda James, Just As I Am Dance Ministries*

Undercover exercise with a twist! Zumba involves dance and aerobic elements. The choreography incorporates hip-hop, soca, samba, salsa, merengue, and mambo. Squats and lunges are also included. Approximately 15 million people take weekly Zumba classes around the world.

#### **KS/MO Core Competency Areas:**

5.3.1.b, 5.3.2.c

#### **Emerson Center Gymnasium**

**Time:** 7:30 – 8:30 a.m.

### Opening Session:

#### **STEAM - From Cradle to Career**

*Dr. Diane Smoot (Harris-Stowe State University), Elicia Qualls (Urban Sprouts), Floyd Simms (Simms Building Group), Gary Bell (Stray Dog), and Valerie Bayes (Monsanto).*

A panel of six experts in STEAM fields will engage the region's educators in conversations about STEAM from cradle through career.

Panelists will encourage educators to continue to provide important and engaging experiences that support STEAM learning for children and how these experiences will pay off in the future with more children interested in and pursuing these in-demand technical and creative careers.

#### **KS/MO Core Competency Areas:**

8.2.3.a, 1.1.4.c

#### **Emerson Center Theater**

**Time:** 8:40 – 9:40 a.m.



### 3-D Microscopy - Integrating Art and Science

*Cynthia Kramer, Science and Citizens Organized for Purpose and Exploration (SCOPE)*

By making and decorating your own 3-D glasses, you learn to correlate the relationship between art and plant science 3-D microscopy.

This is a great visual/experiential activity to bring STEM and art together and further helps you understand the connection between STEAM from education to the workforce.

#### **KS/MO Core Competency Areas:**

2.6.3.b, 6.2.2.b

#### **Clay Center Room 214**

**Time:** 10:00 – 11:30 a.m.

### Circus Harmony - Flying Kids

*Jessica Hentoff, Circus Harmony - Flying Kids*

Circus Harmony teaches the art of life through circus education. While children are learning to flip, fly, and fling, they learn important life skills like focus, persistence and teamwork. Circus Harmony can also make direct connections to curriculum in language arts, history, and especially their new Circus Science program. Come see how defying gravity can help your students' learning soar!

#### **KS/MO Core Competency Areas:**

2.2.2.a, 5.3.2.c

#### **Clay Center Room 204**

**Time:** 10:00 – 11:30 a.m.

### Curiosity is Key - The Scientific Method

*Valerie N. Bayes, Monsanto*

Ever wonder why young minds ask so many questions? They are assessing the world around them, gathering more and more information to store in their database of a brain. In this session educators will hone their curiosity with hands on learning and a take home packet of references. There are a lot of really great free resources in the St. Louis area just waiting to be tapped into.

#### **KS/MO Core Competency Areas:**

2.6.1.b, 2.6.3.b

#### **Clay Center Room 215/216**

**Time:** 10:00 – 11:30 a.m.



### **Math for Early Learners**

*Emily Norton and Julie Tubbs, The Magic House, St. Louis Children's Museum*

This workshop makes math instruction as simple as 1-2-3! Early childhood educators explore innovative ideas and hands-on teaching techniques that support the Missouri early learning goals for mathematics, including number recognition, counting, measurement, plus more!

#### **KS/MO Core Competency Areas:**

2.6.3.b, 1.1.1.c

**Clay Center Room 211/212**

**Time:** 10:00 – 11:30 a.m.

### **Paleo Preschool**

*Josh Linn, Saint Louis Science Center*

Paleo Preschool is the perfect program for young learners interested in paleontology! Become a Paleontologist and learn about different types of dinosaurs. Piece together your own dinosaur fossil and make your very own to take home!

#### **KS/MO Core Competency Areas:**

2.6.2.a, 2.3.1.b

**Clay Center Room 217/218**

**Time:** 10:00 – 11:30 a.m.

### **YES: Infants and Toddlers can do STEAM**

*Ellicia Qualls, Urban Sprouts*

Children are born with a natural curiosity and a strong instinct to explore the world around them. Learn how to encourage the youngest students to explore with their senses through playful, skill-building activities and experiences, in an inviting environment rich with STEAM-based options.

#### **KS/MO Core Competency Areas:**

2.1.2.a, 2.6.2.a

**Clay Center Room 213**

**Time:** 10:00 – 11:30 a.m.

### **Build It, Test It, Fix It**

*Josh Linn, Saint Louis Science Center*

Using the story of the Three Little Pigs, learn how to build a house using reclaimed materials. Then put your house to the test in front of the “Wolf Fan” to see if it will blow your house down! Join us while we learn, create, and test engineering concepts!

#### **KS/MO Core Competency Areas:**

2.6.2.a, 6.2.2.b

**Clay Center Room 217/218**

**Time:** 12:30 – 2:00 p.m.

### **Building Basic Math One Game at a Time**

*Stephanie Garcia, Box Cars and One Eyed Jacks*

Frustrated with finding ways for students to really learn their basic math facts? Build students math fact fluency and strategy use without hesitation with hands-on games! Using cards, dice, dominoes, and number lines, you will walk away with tools in your toolkit to help make math fluency fun. Gameboards, handouts, and student samples will be shared.

#### **KS/MO Core Competency Areas:**

2.6.2.a, 2.6.3.b

**Clay Center Room 211/212**

**Time:** 12:30 – 2:00 p.m.

### **How to Connect Art with STEM to Produce STEAM**

*Vanity Gee-Maricque, Craft Alliance Center of Art + Design*

The concept of STEAM isn't new, not by a longshot, and this session talks about why. The first part of the session will explore the history of the arts with STEM and how art programs are working to integrate STEM more purposefully into curriculum. The second part of the session will lead participants through art-making that is connected to STEM.

#### **KS/MO Core Competency Areas:**

2.5.2.a, 2.6.3.b

**Clay Center Room 213**

**Time:** 12:30 – 2:00 p.m.



### **In Full Force**

*Deborah Taylor, United4Children*

Forces are all around us. In this session, you will review different forces that impact our daily lives. Learn engaging activities to use in your STEAM program.

#### **KS/MO Core Competency Areas:**

2.6.2.a, 2.6.3.b

**Clay Center Room 214**

**Time:** 12:30 – 2:00 p.m.

### **Introduction to NXT Robotics**

*Vincent McKinney, University of Missouri Extension*

This workshop will introduce LEGO Mindstorm NXT robotics program to participants. Working in groups, participants will learn how to program robots to move and maneuver through a maze, make sounds, and display messages. Participants will also have the opportunity to compete in robotic challenges, such as the Dizzy Drill and Buried Treasure.

#### **KS/MO Core Competency Areas:**

2.6.3.a, 1.1.2.b

**Clay Center Room 215/216**

**Time:** 12:30 – 2:00 p.m.

### **Being Creative without Being Creative**

*Gundia Lock-Clay and Christopher Thomas, Neighborhood Houses*

You don't have to be an art teacher to do art projects - and art is not just for art class! Learn to use everyday materials to create quick and easy projects to engage students of all ages. In addition, this workshop will open your eyes to see art in the most usual and unusual places.

#### **KS/MO Core Competency Areas:**

2.5.1.c, 2.5.2.a

**Clay Center Room 215/216**

**Time:** 2:15 – 3:15 p.m.

### **Body Connections**

*Josh Linn, Saint Louis Science Center*

Explore four of the major body systems through a series of hands on activities.

Participants will learn more about how the circulatory, muscular, respiratory, and skeletal systems in our bodies operate!

#### **KS/MO Core Competency Areas:**

2.6.3.b, 2.1.4.a

**Clay Center Room 214**

**Time:** 2:15 – 3:15 p.m.

### **Play in Nature**

*La Tonya Brown, Missouri Botanical Garden*

This workshop will focus on play and natural props. It will promote the use of different plant parts that can be easily found and used in outdoor settings, and strategies on how to engage infants and toddlers as well as preschool students in a multi-sensory, whole child approach.

#### **KS/MO Core Competency Areas:**

1.1.1.c, 2.6.1.a

**Clay Center Room 204**

**Time:** 2:15 – 3:15 p.m.

### **STEM-tastic After-School Science**

*Alan Simon, Mad Science of St. Louis*

The workshop will introduce the concept of STEM and what it entails. Includes hands-on activities that can be easily done with children as well as how STEM can be incorporated into other activities as well.

#### **KS/MO Core Competency Areas:**

1.1.1.c, 2.6.2.a

**Clay Center Room 217/218**

**Time:** 2:15 – 3:15 p.m.



### **Stock Market Savvy Kids Program**

*Darlene Martin, Money Smarts School of Finance for Children*

How can we prepare children to excel not only in the classroom, but also in life? Money Smarts educates and empowers youth with the knowledge and wisdom of prudent decision making using a structured curriculum combined with innovative, practical, hands-on activities. Classes are taught by licensed and experienced financial advisers, estate planners, and lawyers from the Metropolitan St. Louis area. In this session, we will explore ways to make learning fun while also inviting students to engage in elevated levels of thinking using simple economics, basic strategies, and elementary finance.

#### **KS/MO Core Competency Areas:**

6.3.1.c, 6.3.2.c

**Clay Center Room 211/212**

**Time: 2:15 – 3:15 p.m.**



### **The Great Math Movement**

*Deborah Taylor, United4Children*

Let's add some speed and movement to our math operations. You will learn simple games that teach/reinforce math facts in an active, challenging way. You will also be able to adapt them to the needs of your program.

#### **KS/MO Core Competency Areas:**

2.6.2.a, 2.6.2.b

**Clay Center Room 213**

**Time: 2:15 – 3:15 p.m.**





## Clock Hour Information

ARCHS' Institutes provide teachers, administrators, child care providers, parents, and education students with innovative learning opportunities featuring keynote presentations and hands-on workshops. Missouri and Illinois early childhood educators can earn up to 6.5 approved clock hours for attending ARCHS' STEAM Institute.

Missouri participants may earn up to 6.5 clock hours towards their annual professional development requirement when they provide their [Missouri Professional Development Identification \(MOPDID\)](#) number upon registration and verify their attendance with a signature during each session. DHSS approved clock hours (for Missouri participants providing their MOPDID number) will be electronically submitted to the OPEN Initiative within 30 days of attendance.

Illinois participants may earn up to 6.5 clock hours towards their annual professional development requirement. Illinois participants will need to have their completed certificates photocopied. Just stop by the Institute's registration desk before leaving. ARCHS will submit the certificates to the [Illinois Network of Child Care Resource and Referral Agencies \(INCCRRA\)](#) office for Gateway Registry hours within 30 days of the Institute.

Missouri participants who do not have a MOPDID number and Illinois participants who do not submit their completed certificates to the ARCHS' registration desk after the Institute, can receive clock hours by directly submitting a copy of their Institute certificate and session approval stickers to their respective Missouri or Illinois institutions.

## Kansas and Missouri Core Competency Content Areas

ARCHS' STEAM Institute features learning sessions aligned to *Kansas and Missouri Core Competencies for Early Childhood and Youth Development Professionals*:

<b>Content Area I:</b>	<b>Child Growth and Development</b>
<b>Content Area II:</b>	<b>Learning Environment and Curriculum</b>
<b>Content Area III:</b>	<b>Child Observation and Assessment</b>
<b>Content Area IV:</b>	<b>Families and Communities</b>
<b>Content Area V:</b>	<b>Health, Safety, and Nutrition</b>
<b>Content Area VI:</b>	<b>Interactions with Children</b>
<b>Content Area VII:</b>	<b>Program Planning and Development</b>
<b>Content Area VIII:</b>	<b>Professional Development and Leadership</b>





## Directions/Parking



### Clay Center Address:

- 10 North Compton Ave., St. Louis, MO 63103

### Clay Center Parking:

- Use Laclede Ave. entrance
- Enter campus and turn left into parking lot behind Clay Center