The Clermont County Education Service Center is pleased to announce a selection of exciting professional development opportunities is now available for the 2014 – 2015 school year. Through a partnership with Curriculum Engineers, Inc., these workshops will be delivered by national presenters and curriculum consultants who understand the challenges that Ohio teachers face. As part of this partnership, registration fees are waived for teachers in Clermont County. All workshops are held from 8:30 am – 3:30 pm and, unless noted otherwise, will be held at the CCESC.

For more information or to register visit: www.curriculumengineers.com

Ashland University credit available for teachers attending two or more days.
### Math Workshops

**Structures in Math (Grades K-2)**  
*Presenter: Barb Weidus*

“How can I possibly teach fluency, properties of operations, mental math, real world problems and place value in one grade level with depth and rigor?” In this 2-day workshop, we will use the Standards for Mathematical Practice, Cognitive Demands and Table 1 from Ohio’s New Learning Standards to answer that question. We will also dig in to see what alignment to the PARCC Model Content Framework looks like, and see what questions Illustrative Mathematics give us.

**Fraction Boot Camp (Grades 3-5)**  
*Presenter: Barb Weidus*

An important shift in mathematics happens in grades 3-6 with fractions. This workshop looks at Ohio’s New Learning Standards, which introduce fractions in grades 1 and 2 through geometry. From there we move to the basic conceptual understandings of what fractions are in grades 3 and 4. The use of the Standards for Mathematical Practice along with the Cognitive Demands will be front and center to our learning. By the end of day 2, we will begin building our conceptual knowledge of operations in fractions. The progressions tell us what to focus on – visual models such as a number line, geoboard, patty paper, etc. We will also dig in to see what questions from the PARCC PBA and EOY tell us.

**Ratios, Percents, & Proportions (Grades 6-7)**  
*Presenter: Barb Weidus*

This 3-day workshop builds the progressions students need to be successful with Ohio’s New Learning Standards. We will start with ratios and then examine various visual models needed to build percents. By the end of day 2, we will integrate the progressions to get to a conceptual understanding of proportions. Embedded throughout will be the Standards for Mathematical Practice, which will drive instruction for the 21st century.

### Math Workshop Descriptions (con’t)

**Effective Questioning in Math (Grades 3-8)**  
*Presenter: Michelle Walker-Glenn*

Why ask questions? This workshop will focus on the use of effective questioning – both oral and written in the mathematics classroom. Participants will analyze written questions using Bloom’s Taxonomy, the Rigor and Relevance Framework, and Webb’s Depth of Knowledge. Participants will focus on the use of questions to develop conceptual understanding through mathematical discourse verses rote answer getting.

**Mathematics Design Collaborative (Grades 6-8)**  
*Presenter: Michelle Walker-Glenn*

Participants will explore resources available on the Mathematics Assessment Project website. Formative assessment lessons targeting problem solving and concept development will be modeled. Participants will review available resources and consider mapping those resources into current curriculum maps and/or pacing guides. Please consider bringing a copy of your curriculum map.

**Structures in Mathematics (Grades 3-5)**  
*Presenter: Barb Weidus*

“Solve word problems involving...” - fill in the blank (multiplication, division, fractions, length, addition, etc.). How can this be done while still working on basic facts? In this 2-day workshop, we will use the Standards for Mathematical Practice, Cognitive Demands and Tables 1 and 2 from Ohio’s Learning Standards to answer that question. Included in the workshop will be handouts and a resource list. This workshop is designed specifically for grades 3 through 5, but intervention specialists are always welcome!

### Featured Presenters

**Dr. Michelle Walker-Glenn** is a mathematics consultant, serving approximately thirty schools in Ohio through her affiliation with *High Schools That Work and Making Middle Grades Work*. She has co-authored the publication, *Strategies for Numeracy Across the Curriculum*.

**Barb Weidus** specializes in elementary mathematics and content alignment. She serves as a math coach and curriculum consultant with Curriculum Alignment Specialists. Barb has served on range finding and curriculum committees for the Ohio Department of Education and sits on the board for Ohio Mathematics Education Leader Council (OMELC).
Science Workshops

Student Led Investigations
- September 30, 2014 (Grades 3-5)
- November 13, 2014 (Grades 6-8)

Earthquake Size Shifts in State Assessments, Are You Ready?
- September 24, 2014 (Grades 5-10)

PERC – Preliminary Ideas, Evidence, Reasoning and Claims
- October 2, 2014 (Grades 6-8)
- November 17, 2014 (Grades 3-5)

Technology Enhanced Science
- January 21, 2015 (Grades 5-8)

The Engineering Design Process
- February 9, 2015 (Grade 4-5)
- March 9, 2015 (Grade 4-5)

Centering Around the Science Standards (Grades K-2)
- October 22, 2014
- December 12, 2014
- February 11, 2015

“Essential Knowledge in Science” Series
- October 23, 2014: Electricity (Grades 4-8)
- January 12, 2015: Force and Motion (Grades 5-8)
- February 25, 2015: Chemistry (Grades 6-8)

Science Workshop Descriptions

Student Led Investigations
Presenters: Meri Johnson and Amy Bain

Student-led investigations? That's right the Ohio Science Standards and Assessments require students to plan and implement investigations that provide evidence-based conclusions. This professional development models grade specific lessons that are doable in the classroom without great expense or teacher tears.

Earthquake Size Shifts in State Assessments, Are You Ready?
Presenter: Meri Johnson

The New OGT and Next Generation Science Assessments begin in 2015. What will they look like? How will they be set up? How is the New OGT different from the old? What is a performance assessment? What can we do to be better prepared for all of these changes? These are some of the topics to be addressed during this one day workshop specific to science assessments.

PERC – Preliminary Ideas, Evidence, Reasoning and Claims
Presenters: Meri Johnson and Amy Bain

Ohio’s new standards and assessments demand that students of all grade levels write responses that include evidence to support their claim and reasoning. Participants will construct a foundation in claims, evidence and reasoning responses to maximize the rigor of science instruction and to prepare for the Next Generation Assessments.

Science Workshop Descriptions (con’t)

Technology Enhanced Science
Presenters: Meri Johnson and Amy Bain

The use of electronic assessments will require that students have extensive practice with electronic simulations and writing. Participants will work through lessons that incorporate grade-level content and scientific practices while exploring teacher developed electronic instruction and assessments. A laptop or other electronic device with internet access is required for this session.

The Engineering Design Process
Presenters: Meri Johnson and Amy Bain

Participants will work through lessons that incorporate grade level content and scientific practices while modeling the engineering design process. This class is differentiated in order for each grade level to work through engineering design lessons that address specific grade level content.

Centering Around the Science Standards
Presenter: Amy Bain

Participants will study the vertical alignment of the New Ohio Learning Standards for science as they investigate and build centers that develop science skills and content. Participants will explore over 60 different centers that can be used in the K-2 classroom.

Essential Knowledge in Science: Electricity
Presenters: Meri Johnson

What are the essential understandings and skills of electricity? How are they developed in grades 4-8? What do model lessons for each grade level look like? These key questions will be answered in this workshop.

Essential Knowledge in Science: Forces and Motion
Presenters: Meri Johnson

What are the essential understandings and skills of forces and motion? How are they developed in grades 5-8? What do model lessons for each grade level look like? These key questions will be answered in this workshop.

Essential Knowledge in Science: Chemistry
Presenters: Meri Johnson

What are the essential understandings and skills of chemistry? How are they developed in grades 6-8? What do model lessons for each grade level look like? These key questions will be answered in this workshop.

Featured Presenters

Meri Johnson is a science curriculum specialist for Curriculum Engineers and a Nationally Board Certified science teacher. She was former co-primary investigator for Southwest Ohio Science Institute (SOSI grades 3-6) and co-author of Centering Around the Science Standards 6-8. She serves as a science coach and mentor for several Ohio schools.

Amy Bain is a gifted coordinator and founder of the STEM Center in Bethel, Ohio. As a National Board Certified teacher and the 2002 Ohio finalist for the Presidential Award for Excellence in Math and Science Teaching, she has authored books on science instruction and virtual learning and presented at local, state, and national conferences.
Teaching Strategies & Pedagogy Workshops

**Formative Assessment Techniques (Grades 3-8)**
- January 29, 2015

**Differentiation (Grades 3-12)**
- October 15, 2014

Workshop Descriptions

**Formative Assessment Techniques (Grades 3-8)**  
*Presenter: Dr. David Vernot*

“Participants will experience various formative assessment classroom techniques (FACTS) which can be incorporated into instruction at a variety of grade levels and subject areas. Techniques will allow the teacher to get immediate formative feedback. This workshop will include the opportunity to apply the techniques to your teaching situation and a discussion of how these techniques fit with other formative assessment initiatives such as “FIP Your School.”

**Differentiation (Grades 3-12)**  
*Presenter: Amy Bain*

This workshop demonstrates a variety of brain-based strategies and instructional tools that can be used to incorporate higher order thinking skills while differentiating to meet student needs. Differentiation methods and ideas for managing a differentiated classroom will be shared.

Featured Presenter

**Dr. David Vernot** is a curriculum consultant at Butler County ESC and an ODE coach for Ohio Performance Assessment Pilot Project. He is a specialist in formative assessment techniques and integrating Common Core ELA in science classrooms.

All workshop fees are waived for Clermont County public school teachers. Teachers from outside of Clermont County are welcome to attend! A fee schedule can be found on the Curriculum Engineers website along with registration information for all participants.

[www.curriculumengineers.com](http://www.curriculumengineers.com)