**Funded Projects for 2014-15**

The following projects are being funded by subgrants awarded to the sponsoring institutions by the University of Wisconsin System. Funding for this program is provided by a grant to the University of Wisconsin System by the U.S. Department of Education under ESEA Title IIA Higher Education Professional Development Program. These Wisconsin Improving Teacher Quality project activities will take place during the spring and summer of 2014 and the 2014-15 academic year. For further information, contact the director of an individual project or Phil Makurat, Wisconsin ESEA Improving Teacher Quality Program Coordinator, at 262-215-4616 or makuratp@uww.edu.

Information for each project is listed in this order:

Institution of Higher Education
Project Title
Grade Level
Project Director (e-mail address)
Local Education Agencies (LEAs) Involved
Brief description of the project

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**IHE: UW-Stout**

Title: Advancing Science Learning (ASL)
Teaching Grade Level of Participants: Grades K-5
Project Director and Email: Anne Wallisch, CESA #11, annew@cesa11.k12.wi.us

LEAs the project is designed to serve: Amery, Chetek-Weyerhaeuser, Ellsworth, Grantsburg, Hudson, Osceola, Pepin, St. Croix Central, St. Croix Falls, Rice Lake, Turtle Lake and Unity

Activities: One-day Professional Learning Community Visions Conference, 6-days Science Content and EiE Model correlations enhancement Summer Academy, 2-day Assessment and Data Retreat Celebration, 2-days Hands-On, Minds-On Workshops, and Year-Long Follow-up Assistance and Training Modules.

Benefits: Participants will develop their content expertise, skills, strategies, techniques and practices to guide the science leadership within their K-5 grade span and district in support of the Next Generation State Standards (NGSS) to include a correlation to the Museum of Science – Boston “Engineering is Elementary” (EiE) model. In doing so this project will develop and support a professional learning community (PLC) model based on shared vision, collaborative culture, continuous improvement and student achievement in science.

Dates of project activities: Please contact the Project Director

Number of participants: 60 participants (Including Regular and Special Education Specialists)

This is the second year of a 3-year project.
IHE: University of Wisconsin - Stout
Title: Science Literacy – Literacy in Science
Teaching Grade Level of Participants: K-8
Project Director and Email: Forrest Schultz SchultzF@uwstout.edu

LEAs the project is designed to serve: The School District of the Menomonie Area, Wauwatosa School District, Boyceville Community School District, a High Need LEA, and open to other High Need LEAs in the area.

Activities: The program will select 24 K-8 teachers for a three year intensive content and leadership professional development experience designed to meet the project stated goal and objectives. Participants will meet for fifteen days over each project year; two weeks during the summer and Saturdays during the school year. Additional time will be spent in sustained on-line activities. Program efforts will focus on (1) the Next Generation of Science Standards as it relates to participant’s existing science program and practices, and the Common Core Standards for literacy in Science, (2) the development and implementation of research based (science literacy and literacy in science) lesson plans for a unit in their existing classroom curriculum. Each lesson developed will be implemented, validated, and evaluated during the project school year, (3) content enhancement, appropriate to their units, will be provided by university scientists and engineers, and (4) leadership opportunities to prepare participants for providing district and area leadership in science literacy and literacy in science will be offered.

Benefits: Program activities will increase teacher knowledge in science content as they participate in workshops and develop collegial relationships with university partners. Working with reading and curriculum consultants, participants will extend their knowledge in designing effective lessons that integrate science literacy and literacy in science. They will develop leadership skills as each year they design, plan, conduct, and evaluate summer drive-in workshops for other teachers and administrators. Participants will use these skills to provide district and area leadership in integrating science literacy and literacy in science.

Dates of project activities: Please contact the Project Director
Number of participants: 24 K-8 Leadership Core Teachers (LCT.) An estimated 40 additional area teachers and 10 administrators will participate in one day conferences designed, developed, implemented and evaluated by LCTs. An estimated 20 4-5th grade students will be involved in a LCT designed and evaluated one-half day summer session using a lesson developed and taught by the LCTs.
This is the second year of a 3-year project.

IHE: University of Wisconsin-Eau Claire
Title: Implementing Common Core State Standards in Middle & High School English/Language Arts Classrooms
Teaching Grade Level of Participants: 6th-12th grade
LEAs the project is designed to serve: Fall Creek, Augusta, Black River Falls, Chippewa Falls, Colfax, Eau Claire, Ladysmith, Menomonie, Neillsville, Durand

Activities: This three-year program is designed to address ongoing professional-development needs of English/language arts teachers, to strengthen their core curricula and teaching strategies, and to meet the increase in academic rigor under the Common Core State Standards (CCSS).

We sustain that professional learning during the academic year through ongoing monthly meetings with teacher participants, highlighted by two retreats. We will recruit groups of teachers from the same school so they can collaborate (via small learning communities) and apply their learning to their specific school (via teacher-inquiry projects). This will also increase the collaborative nature of the professional development. In addition, we will hold the monthly meetings in the schools, providing each group the opportunity to spotlight ongoing implementation efforts in their school.

Benefits: Since our program centers on the Common Core, it is deeply aligned with the most pressing reform effort in E/LA today. Teachers and researchers across the country are working to implement the new E/LA common core standards. This sustained professional development opportunity will provide participants with the opportunity to collaborate on this effort with other teachers from within their own school and from other schools, as well as faculty from the University. Teachers will learn knowledge and content related to the standards as well as pedagogical strategies to help students meet the new rigorous standards. Through deeper implementation of the CCSS, students’ performance on achievement indicators will improve.

Dates of project activities: Please contact the Project Director

IHE: University of Wisconsin-Milwaukee

Title: Pathways to Teacher Leadership in Mathematics: Building Capacity for Excellence in Mathematics Teaching and Learning

Teaching Level: K–8

Directors: Dr. DeAnn Huinker, huinker@uwm.edu
Dr. Michael Steele, steelem@uwm.edu

LEAs Served: School District of Cudahy School District of South Milwaukee
Milwaukee Public Schools Mequon-Thiensville School District
School District of Greenfield

Activities: This three-year program will prepare teachers as instructional leaders in mathematics for their schools and districts. An important focus of the project is deepening participants’ mathematical knowledge of the Common Core State Standards for Mathematics while building their capacity as teacher leaders for supporting
excellence in mathematics teaching and learning. A central focus is study of mathematics learning progressions and mathematical practices across grades K-8. The project provides two pathways to teacher leadership: Advanced Studies Pathway leading to a graduate certificate and the Advanced Degree Pathway leading to a master’s degree. All participants complete the six courses in the advanced studies pathway that are offered as intensive summer institutes and school-year sessions. Courses include: (1) number and operations in base ten and algebraic thinking; (2) fractions, ratios, and proportional relationships; (3) geometry, measurement, and statistics; (4) high-leverage instructional practices for mathematics; (5) formative assessment; and (6) mathematics instructional leadership. Participants in the advanced degree pathway also enroll in additional courses offered specifically for the individuals in this project.

Benefits: Schools and districts benefit from having teachers who are strong instructional leaders in mathematics. Participants follow a carefully sequenced program of advanced studies leading to a UWM graduate certificate. Participants receive tuition remission waivers for 5-6 graduate credits per year depending upon their pathway. Participants in the advanced degree pathway also enroll in additional courses aligned with and offered in conjunction with the project courses in a manner that makes the master’s degree obtainable within three years. Participants may also apply the courses toward a doctoral degree.

Dates: Summer Institute: July 7-18, 2014
School Year 2014-2015: September 16 & 30, October 14 & 28, November 11 & 25, January 20, February 3 & 17, March 3 & 17, April 7 & 21, May 5

Participants: 20 participants (K-8 teachers from 5 partner school districts)

IHE: University of Wisconsin-Milwaukee

Title: Finding Common Ground in the CCSS for ELA: Developing Teacher Leaders to Improve Writing Instruction in All Content Areas

Teaching Grade Level of Participants: K-12

Project Director and Email: Karen K. Rigoni, Ph.D. (kskelley@uwm.edu) and Donna L. Pasternak, Ph.D. (dlp2@uwm.edu)

LEAs the project is designed to serve: Milwaukee School District

Activities: There are four phases of activities in this project, some of which take place concurrently: Phase 1: Inquiry-based Summer Institute for instructional coaches drawn from MPS math and literacy coaches (Tier 1 participants). This 3-credit undergraduate course will meet in the summer for 3 weeks for 3 hours per day. The process begins with a book study about curricular shifts in the teaching of writing and English language arts, providing common ground for conversations around the CCSS. Inquiry topics will then be identified and narrowed as research-based solutions and ideas are identified. Tier 1
participants will synthesize their learning and begin to formulate it into a teacher inquiry workshop to be shared at the February Showcase. **Phase 2:** Professional Learning Communities (PLC) for Tier 2 Participants. The instructional coaches (Tier 1 participants) will establish a PLC at their school site. These PLCs will engage in a similar inquiry process of identifying an instructional issue related to the CCSS, explore its research-based solutions, and implement that solution into classroom practice. **Phase 3:** Three Saturday Sessions will be held in fall 2014 to provide ongoing support for the instructional coaches as they work to establish collaborative PLCs at their school site and continue to revise their own professional work. The culmination of this work for the instructional coaches will occur in February at the Showcase where instructional coaches will share the inquiry projects begun in the Summer Institute with community members. This might include school administrators and other teachers at the school. **Phase 4:** During the fall 2014 and spring 2015, the Tier 1 Participants will establish an online professional community by creating a blog for sustainability and support of the PLC.

**Benefits:** The benefits of the project can be broken down into two tiers: Tier 1, the instructional coaches; Tier 2, the Professional Learning Community participants at the instructional coaches’ school site. For the Tier 1 instructional coaches, the benefit is twofold: Increase in knowledge and understanding of research-based strategies that address issues in the CCSS and gain the leadership skills necessary to lead an inquiry based professional learning community. For the Tier 2 professional learning community participants, the benefit is threefold: Increase in ability to engage in an inquiry process to improve teaching and learning, gain valuable research-based instructional strategies that are focused on elements within the CCSS, improved student achievement. Both Tier 1 and Tier 2 participation will increase leadership and content knowledge capacity in MPS.

**Dates of project activities:**

**Phase 1:** The Summer Institute will be offered July 28, 2014-August 15, 2014. **Phase 2:** PLC dates will vary by school. **Phase 3:** Three Saturday Sessions will be held, in fall 2014: September 27, October 18, and November 8. The Showcase will be take place in February 7, 2015. **Phase 4:** Online discussion and reflection will occur in blog postings from September 2014 through June 2015.

**Number of participants:**

**Phase 1:** The 3-credit Summer Institute will support up to 25 participants. **Phase 2:** Each PLC will include at least 3 members for a total impact of approximately 75 teachers. **Phase 3:** There will be 25 participants in the three Saturday Sessions. The Showcase will involve at least the 25 instructional coaches (Tier 1) along with approximately 50 outside attendees. **Phase 4:** The activities in Phase 4 of the project will involve the 25 Tier 1 participants

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**IHE:** University of Wisconsin-Milwaukee  
**Title:** Finding Common Ground in the CCSS for ELA: Developing Teacher Leaders to Improve Writing Instruction in All Content Areas  
**Teaching Grade Level of Participants:** K-12
Project Director and Email: Karen K. Rigoni, Ph.D. (kskelley@uwm.edu) and Donna L. Pasternak, Ph.D. (dlp2@uwm.edu)

LEAs the project is designed to serve: Milwaukee School District

Activities:
There are four phases of activities in this project, some of which take place concurrently:

Phase 1: Inquiry-based Summer Institute for instructional coaches drawn from MPS math and literacy coaches (Tier 1 participants). This 3-credit undergraduate course will meet in the summer for 3 weeks for 3 hours per day. The process begins with a book study about curricular shifts in the teaching of writing and English language arts, providing common ground for conversations around the CCSS. Inquiry topics will then be identified and narrowed as research-based solutions and ideas are identified. Tier 1 participants will synthesize their learning and begin to formulate it into a teacher inquiry workshop to be shared at the February Showcase.

Phase 2: Professional Learning Communities (PLC) for Tier 2 Participants. The instructional coaches (Tier 1 participants) will establish a PLC at their school site. These PLCs will engage in a similar inquiry process of identifying an instructional issue related to the CCSS, explore its research-based solutions, and implement that solution into classroom practice.

Phase 3: Three Saturday Sessions will be held in fall 2014 to provide ongoing support for the instructional coaches as they work to establish collaborative PLCs at their school site and continue to revise their own professional work. The culmination of this work for the instructional coaches will occur in February at the Showcase where instructional coaches will share the inquiry projects begun in the Summer Institute with community members. This might include school administrators and other teachers at the school.

Phase 4: During the fall 2014 and spring 2015, the Tier 1 Participants will establish an online professional community by creating a blog for sustainability and support of the PLC.

Benefits:
The benefits of the project can be broken down into two tiers: Tier 1, the instructional coaches; Tier 2, the Professional Learning Community participants at the instructional coaches’ school site. For the Tier 1 instructional coaches, the benefit is twofold: Increase in knowledge and understanding of research-based strategies that address issues in the CCSS and gain the leadership skills necessary to lead an inquiry based professional learning community. For the Tier 2 professional learning community participants, the benefit is threefold: Increase in ability to engage in an inquiry process to improve teaching and learning, gain valuable research-based instructional strategies that are focused on elements within the CCSS, improved student achievement. Both Tier 1 and Tier 2 participation will increase leadership and content knowledge capacity in MPS.

Dates of project activities:

Phase 1: The Summer Institute will be offered July 28, 2014-August 15, 2014. Phase 2: PLC dates will vary by school. Phase 3: Three Saturday Sessions will be held, in fall 2014: September 27, October 18, and November 8. The Showcase will be take place in February 7, 2015. Phase 4: Online discussion and reflection will occur in blog postings from September 2014 through June 2015.

Number of participants:
Phase 1: The 3-credit Summer Institute will support up to 25 participants. Phase 2: Each PLC will include at least 3 members for a total impact of approximately 75 teachers. Phase 3: There will be 25 participants in the three Saturday Sessions.
Showcase will involve at least the 25 instructional coaches (Tier 1) along with approximately 50 outside attendees. Phase 4: The activities in Phase 4 of the project will involve the 25 Tier 1 participants

**IHE:** University of Wisconsin -Stout  
UW-Barron County Instructional Support

**Title:** Science Learning Community (SLC)

**Teaching Grade Level of Participants:** Grades 6-12

**Project Director and Email:**  
Anne Wallisch, annew@cesa11.k12.wi.us

**LEAs the project is designed to serve:**  
Amery, Durand, Elk Mound, Ellsworth, Frederic, Grantsburg, Osceola, Rice Lake, River Falls, Siren & Unity

**Activities:**  
Participants will participate in the following:  
One-Day Professional Learning Community Visions Conference, 6-Day Science Content and Engineering Model correlations enhancement Summer Academy, 1-Day Winter PLC Assessment Celebration, and Year-Long Follow-Up Assistance, coaching and feedback

**Benefits:**  
Participants will develop their content expertise, skills, strategies, techniques and instructional practices to guide the science leadership within their 6-12 grade span and district in support of the Next Generation Science Standards (NGSS) to include a correlation to the Museum of Science – Boston “Engineering is Elementary” and other “exemplar” engineering models. In doing so this project will develop and support a professional learning community (PLC) model based on shared vision, collaborative culture, continuous improvement and achievement for all students in science.

**Dates of project activities:** Please contact the Project Director

**Number of participants:**  
45 Participants to include Science educators and Special Education Specialists

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**IHE:** University of Wisconsin – River Falls

**Title:** Core Math Progressions through Fractions and Algebra

**Teaching Grade Level of Participants:** Grades 3–8 and Pre-service Math Teachers
**Project Director and Email:** Erick Hofacker, Erick.B.Hofacker@uwrf.edu

**LEAs the project is designed to serve:** New Auburn, Bruce, Lake Holcombe, Bloomer, Prescott, New Richmond, and River Falls

**Activities:** Common Core Content Workshops (summer), Just in Time Seminars (after school), Core Math in Practice Sessions (weekends), and Teaching Observations (during the school year).

**Benefits:** The benefits of this project include regional elementary and middle school math teachers having a better understanding of the rigor involved in the common core mathematics standards involving number and operations, fractions, ratio and proportion, and algebraic thinking. Participants will examine how the standards progress from the upper elementary into the middle school level. This would provide teachers a better understanding of the knowledge students are expected to have in the future, and where they have come from in their past. Participants would gain better pedagogical content knowledge of the tasks and problems that would be used with students for them to reach and meet the content standards. Participants would also gain a better understanding of how to implement the mathematical practice standards with their students through a variety of tasks and scenarios they would participate in during the course of the project. Classroom observations will assist the participants to become better at reflecting on their productive habits of mind in their mathematics teaching. The project would provide a learning community for the participants that would stretch across multiple districts. It would provide an opportunity for pre-service math teachers to interact with in-service math teachers in the classroom as well as through a professional development setting.

**Dates of project activities:** During the first year we will plan to recruit participants for the grant during spring, 2014. We will conduct a one-week Core Content workshop to kick off the grant during summer, 2014. From there we will start a regular cycle that would be repeated over the next three years. During the school year we would conduct three weekend Core Math in Practice sessions: September, November, and March. We would also conduct after school Just in Time seminars in the schools eight afternoons throughout the year, one to two times per month. Teacher observations will be conducted with each participant throughout the year. We will conclude the first year by conducting a one-week intensive workshop in either June or July. Specific dates would be dependent on discussions with the New Auburn cohort to find the optimal times in the calendar to try to allow a maximum number of teachers to participate.

**Number of participants:** 40 (36 in-service teachers and 4 pre-service teachers)

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IHE: University of Wisconsin-Milwaukee

Title: Common Core High School Mathematics Leadership: Transforming Teachers’ Content Knowledge and Leadership Skills for a New Era
Teaching Grade Level of Participants: Grades 8-12

Project Director and Email: Michael Steele email: steelem@uwm.edu
Kevin McLeod email: kevinm@uwm.edu

LEAs served: Milwaukee Public Schools School District of Brown Deer
School District of South Milwaukee School District of Cudahy

Activities: This two-year professional development project will engage school-based teams of teachers in an intense study of the Wisconsin Common Core Standards for Mathematics with three foci: deepening content knowledge, enhancing instructional practice, and developing leadership and mentoring practices. In each project year, participants will attend a 2-week summer session and 14 project sessions throughout the school year. Participants will engage in an intense study of the Standards for Mathematical Practice and selected Grade 8-12 Standards for Mathematics Content within a modeling framework. Specific attention will be given to Statistics and Probability (Year 1, 2014-15) and Geometry (Year 2, 2015-16). During Year 1, participants will design and implement lessons to address specific content standards, with intentional integration of appropriate mathematical practice standards. They will conduct cycles of action research collaboratively, inquiring into their practice and shifts in student outcomes.

During Year 2, participants will learn coaching and leadership skills, mentoring a beginning teacher in their district or launching an advocacy project. These activities will take place in conjunction with continued cycles of action research and sharing of inquiry outcomes.

Benefits: Participants will deepen their mathematical knowledge and strengthen their instructional practice as it relates to student learning expectations of the Wisconsin Common Core Standards for Mathematics. Their students will be engaged in richer, more meaningful mathematical learning environments. Their school districts will benefit by having a strong professional learning community of mathematics teachers well aware of the intent and goals of the Common Core. Participants will earn ten university course credits that can be used towards an advanced degree or for license renewal.

Dates of project activities: 2014-2015: June 16-20, 23-26; Sep 17; Oct 1, 15, & 29; Nov 5 & 19; Dec 3 & 17; Jan 21; Feb 18; Mar 4 & 18; Apr 1; May 6
2015-2016: June 15-19, 22-25; Sep 16 & 30; Oct 14 & 28; Nov 4 & 18; Dec 2 & 16; Jan 20; Feb 17; Mar 2, 16, & 30; May 4.

Participants: 30 participants (Gr. 8-12 teachers, school-based teams from 4 districts)

IHE: University of Wisconsin Oshkosh

Title: Advancing Disciplinary Literacy in Rural Schools (ADLRS)

Teaching Grade Level of Participants: 6-12
**Project Director and Email:** Dr. Patricia Scanlan (scanlan@uwosh.edu)

**LEAs the project is designed to serve:** Targeted districts in CESA 8: Clintonville, Bonduel, Shawano, Gresham, Marion, Tigerton, Wittenberg-Birnamwood, Bowler, and Menominee Indian School Districts

**Activities:** Grade 6-12 teachers from the targeted districts will attend two-week summer workshops in 2014, 2015, and 2016, and they will attend follow-up sessions during each of the three academic years. In the context of a professional community, teachers will discuss professional readings, study the Common Core Literacy Standards for Content Subjects, and reflect on and respond to teaching workshops that are aligned with selected literacy standards and content outcomes. They will develop teaching and learning inquiry projects that include formative and summative assessments, implement those lessons, analyze related student work samples, and then reflect on the experience to improve subsequent instruction. Eventually, participants will develop and disseminate workshop presentations for district colleagues and for others in CESA 8 that integrate literacy processes and content area learning.

**Benefits:** The primary benefit to teacher participants is the support they will receive from the professional learning community which will be developed. Through their work in this community, teachers will increase their pedagogical knowledge to use literacy processes in content area learning and to improve students’ communication skills. They will gain knowledge of Wisconsin’s Common Core Standards for Literacy and how to develop both formative and summative assessments which align to these standards. Analysis of work samples will inform teachers’ understanding about students’ learning and about their own instruction. Teachers will gain the confidence needed to share their instruction with other colleagues and with a broader, professional community. *ADLRS* participants will receive 9 graduate credits for three years of participants in the program.

**Dates of project activities:** Two weeks in the summer of 2014 (June 23-27 and July 28-August 1) and four, four-hour follow-up meetings during the academic year on the second Tuesday of these months (October, November, January, and March).

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**ABSTRACT**

**IHE:** University of Wisconsin-Whitewater

**Title:** Integrating Science and Literacy Learning with English Proficient and English Language Learners

**Teaching Grade Level of Participants:** K-3

**Project Directors and Email:** Melanie L. Schneider, schneidm@uww.edu; Matthew Vick, vickm@uww.edu
**LEAs the project is designed to serve:** School District of Beloit (high-need LEA), Delavan-Darien School District (high-need LEA), Whitewater Unified School District

**Activities:** The grant project will provide an intensive three-year professional development experience designed to meet project goals and objectives for 35 K-3 teachers and ELL teachers in three school districts. Fifteen of the 35 participants are teachers in a dual language program (Spanish and English) and the other participants are teaching in elementary schools with sizeable populations of Hispanic students and ELLs. Participants will meet together for seven days each project year, one week during the summer and two days during the school year (one-day conference in the fall and spring). In addition, faculty will serve as mentors who observe and coach participating teachers four times (quarterly) during the school year. Through ongoing professional development of teachers, the project will focus on 1) developing the oral language and reading/writing abilities of K-3 students based on Common Core State Standards for Speaking and Listening, Reading: Informational Texts, and Writing and 2) creating and implementing research-based toolkits with lesson plans (in Science and in Literacy Block with science content) 3) mentoring and coaching participating teachers in science content and teaching strategies by university faculty and later by participating teachers, and 4) developing collaborative relationships at three levels: among teachers in school teams, between teachers and university faculty, and between university faculty and partnering LEAS.

**Benefits:** For teachers, project activities will deepen the understanding of the inquiry process in science through experiential learning, provide strategies to embed science content in literacy instruction, develop collaborative relationships with team members at their school and with university partners. For K-3 students, project activities will enhance their understanding of science through hands-on interactive learning and develop oral language and reading/writing abilities.

**Dates of project activities:** May 2, June 16-20 (Summer Workshop), (Date subject to change; alternative date is Aug. 4-8, 2014), Nov. 7 (participants), Apr. 3 (participants)

**Number of participants:** 35 K-3 teachers and ELL teachers

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IHE: University of Wisconsin - Stout

Title: Next Generation Science for Wisconsin

Teaching Grade Level of Participants: K-12

Project Director and Email: Dr. Charles Bomar, Dean College of STEM bomarc@uwstout.edu

LEAs the project is designed to serve: Partner school: New Richmond School District, Franklin Public Schools, Shawano School District, and Milwaukee Public Schools. Outreach: 20 additional districts
Activities: The program will select 20 teachers from the partner school districts for a three-year intensive content and leadership professional development experience designed to meet the stated goals and objectives for the project. Participants will meet for five days each summer face-to-face, two days during the school year face-to-face; participate in monthly webinars, and in an online program during the life of the project. Program efforts will focus on (1) Next Generation Science Standards (NGSS) as it relates to the needs of the project participants, (2) Next Gen Science Exemplar System (NGSX) approach as it relates to participant outreach activities, (3) the development and implementation of research basis for the NGSS and the NGSX approach, (4) leadership opportunities to prepare participants for providing district and area leadership in the NGSS and the NGSX approach, and (5) outreach to other teachers within the partner districts and twenty additional districts.

Benefits: Program activities will increase teacher knowledge in science content as they participate in workshops and develop collegial relationships with each other and with the university partners. Through work with the NGSS content and pedagogy and the NGSX approach, they will become authorities on each and will use this knowledge during their outreach activities and to develop information about “being an effective science teacher.” They will gain confidence in personal leadership skills through their outreach activities as they begin to work with other teachers in their district or with teachers in other districts.