

#ARIpromise15



PROMISING PRACTICES SUMMIT

Innovation in Rural Education



APPALACHIAN RENAISSANCE INITIATIVE

Educational Excellence in the Heart of the Mountains



The Kentucky Valley Educational Cooperative (KVEC) is a public education agency governed by superintendents from the counties of Breathitt, Floyd, Harlan, Johnson, Knott, Lee, Leslie, Letcher, Magoffin, Owsley, Perry, Pike, and Wolfe along with independent districts in Hazard (Perry County), Jackson (Breathitt County), Jenkins (Letcher County), Middlesboro Independent (Bell County), Pikeville (Pike County), and Paintsville (Johnson County). These rural public school districts lie within the Central Appalachian Region of Kentucky and comprise an area about the size of Connecticut. East Kentucky Superintendents realized the necessity of such an organization in the early 1970's and KVEC was formed in 1972 to address the needs of rural school districts. The Cooperative serves as a regional public education entity, focusing attention on teaching, learning and leadership, maximizing educational opportunities, and contributing to a more effective use of resources.

U.S. Department of Education Race to the Top Award Recipient
"Appalachian Renaissance Initiative"

Investing In Innovation Award Recipient
"C3R - Creating College and Career Readiness"

National Future Ready Schools Initiative

East Kentucky Leadership Foundation
Organization of the Year Award Recipient

National Digital Promise Initiative
Designated Innovation Cluster

Project Prevent Award Recipient
"Ripple Effects"

Kelly Literacy Leadership Award Recipient

Founding Member – Appalachian Innovation Collaborative

Programs Include: Special Education Cooperative; Perpetuating Excellence in Teaching, Leadership, and Learning (PETLL); Reading Recovery; Content Network Leadership Networks; Professional Growth and Effectiveness; Higher Education Collaborative; Student Readiness and Wellness; Student Agency; Purchasing and Procurement



Welcome Leader!

Welcome to this year's Appalachian Renaissance Initiative (ARI) Promising Practices Summit. The ARI definition of a leader is *"anyone who holds her or himself accountable for finding potential in people or resources"* and today provides all of us an opportunity to lead.

This Promising Practices Summit is a gathering of some of the most innovative educators in our region and in the United States. It is an opportunity to experience authentic and real world innovation taking place in our classrooms focused on personalized learning – and as importantly - engage with colleagues and learners to extend and deepen learning opportunities through professional dialogue.

ARI is a consortium project of school districts that make up the Kentucky Valley Educational Cooperative (KVEC). ARI includes a broad base of partnerships and collaborations with organizations and institutions capable of supporting, sustaining, and deepening significant innovation in rural public education, specific to advancing personalized learning, teacher and leader effectiveness, and college and career success.

ARI's program implementation strategies include:

- Creating personalized learning environments in collaboration with students, parents and teachers
- Implementing Next Generation Classrooms in all participating schools
- Student participation in personalized learning and teacher professional development opportunities that focus on personalized learning
- Participation in P-20 Innovation Lab Teacher and Leader academies
- Perpetuating Excellence in Teaching, Leadership and Learning (PETLL) framework
- Implementation and use of the Perpetual Data Analysis System (PDAS)
- Development and implementation of social learning network for Central Appalachia, www.theholler.org
- Student engagement with instructional software focused on career and college success
- Collaboration with community and partners to engage parents and promote health and wellness

ARI's approach to personalized learning is a blended model, combining delivery of quality instruction that results in significant learning, both in and out of the traditional classroom. ARI's model involves the teacher, parent and learner in tailoring the learning approach for each student based on his/her needs and interests.

Partner districts and their key leaders are identified in the chart below:

District	Superintendent	Innovation Coordinator	Student Senate Members
Breathitt County	David Gibson	Susan Watts	Ally Spencer & Zachary Eiserman
Floyd County	Dr. Henry Webb	Courtney DeRossett	Alex Sisco & DeAnna Kidd
Harlan County	Mike Howard	David Hensley	Abby Landis & Emma Day
Hazard Independent	Sandra Johnson	Vivian Carter	Lindsey Ambrose & Stacie Fugate
Jackson Independent	Lonnie Morris	Jeff Coots	Josiah Henson & Shey Trent
Jenkins Independent	Eddie Whitaker	Christle Carter	Lindsey Belcher & McKenzie Gibson
Johnson County	Tom Salyer	Noel Crum	Olivia Burchett & Michael Hamilton
Knott County	Kim King	Kelly Hall	Ashley Bergman & Carley Weinberg
Lee County	Dr. James Evans Jr.	Steve Carroll	Cierra Charles & Austin Abney
Letcher County	Tony Sergent	Twyla Messer	Kiley Short & Ashley Benton
Owsley County	Dr. Tim Bobrowski	Gary Cornett	Colby Hudson & Thea Smith
Magoffin County	Stanley Holbrook	Angela Skaggs	Kelsey Cole & Emily Parsons
Middlesboro Independent	Steve Martin	Tina Johnson	Noah Brown & Rebecca Prichard
Paintsville Independent	Coy Samons	Bryan Auxier	Matt Miller & Susanna Goggans
Pike County	Kenneth Adkins	Mary Stiltner	Jamison Coleman & Taryn Syck
Pikeville Independent	Jerry Green	Mary Belcher	Michael Gaunt & Ryan Crum
Wolfe County	Kenny Bell	Wilma Terrill	Kira Hughes & January Moore

Critical and Significant ARI Partners

- Appalachian Regional Commission
- Center for Rural Strategies
- University of Kentucky P-20 Innovation Lab
- Next Generation Leadership Academy
- Appalachian Innovation Collaborative
- Asbury University
- University of Pikeville
- Morehead State University
- Eastern Kentucky University
- Kentucky Department of Education
- Cumberland Valley Area Development District
- Kentucky River Community Care
- SOAR – “Shaping our Appalachian Region”
- Appalachian Higher Education Consortium
- Forward in the Fifth
- Kentucky Highlands Promise Zone
- Kentucky Educational Professional Standards Board
- Kentucky River Area Development District
- Big Sandy Area Development District
- Challenger Learning Center of Kentucky
- Rand, Inc.
- UK Rural Health

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Schedule at a Glance

Registration	8:00 – 9:00	Concourse				
Opening	9:00 – 9:30	<p>Taryn Syck --Welcome Belfry High School Chorus-National Anthem Dr. Jeff Hawkins – 2015 ARI Overview Cameron Wright -Student Senate Ashley Bergman -Entrepreneurial Projects Middle and High Micheal Hamilton -Community Problem Solving Taryn Syck -Logistics</p>				
		Ballroom A	Expo Floor	Upper Lobby	Ballroom B	Ballroom C
Breakout Segment A	9:30- 10:20	Appalachian Leadership Lab	Learning Innovation and Preschool Grant Poster Walls	Innovative Educator Session A1	Innovative Educator Session A2	Innovative Educator Session A3
Breakout Segment B	10:20- 11:15	Appalachian Leadership Lab	Learning Innovation and Preschool Grant Poster Walls	Innovative Educator Session B1	Innovative Educator Session B2	Innovative Educator Session B3
Lunch	11:15 - 1:05	Lunch	Expo Center Main Floor			
			<p>Gallery Walk to view Poster Walls Visit Vendors Lunch / Networking Student Performances</p> <p>Lieutenant Governor Crit Luallen</p>			
Breakout Segment C	1:05 - 2:05	Appalachian Leadership Lab	Learning Innovation and Preschool Grant Poster Walls	Innovative Educator Session C1	Innovative Educator Session C2	Innovative Educator Session C3
Breakout Segment D	2:05 - 3:20	Appalachian Leadership Lab	Learning Innovation and Preschool Grant Poster Walls	Innovative Educator Session D1	Innovative Educator Session D2	Innovative Educator Session D3

Innovative Educator Sessions Format

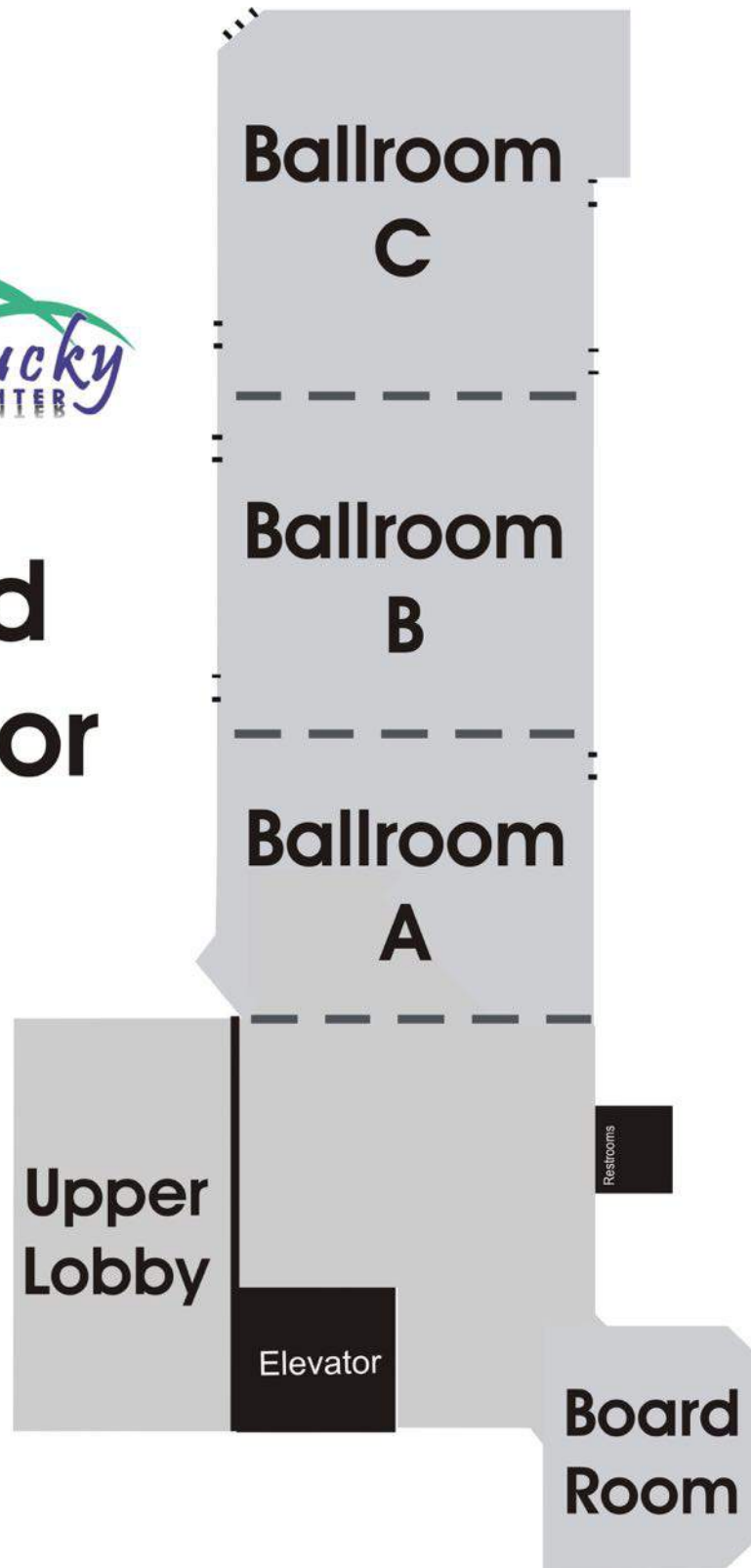
Facilitator Introduction *	5 minutes
Innovative Educator Presentations	10 minutes each
Break/Transition to next session	15 minutes

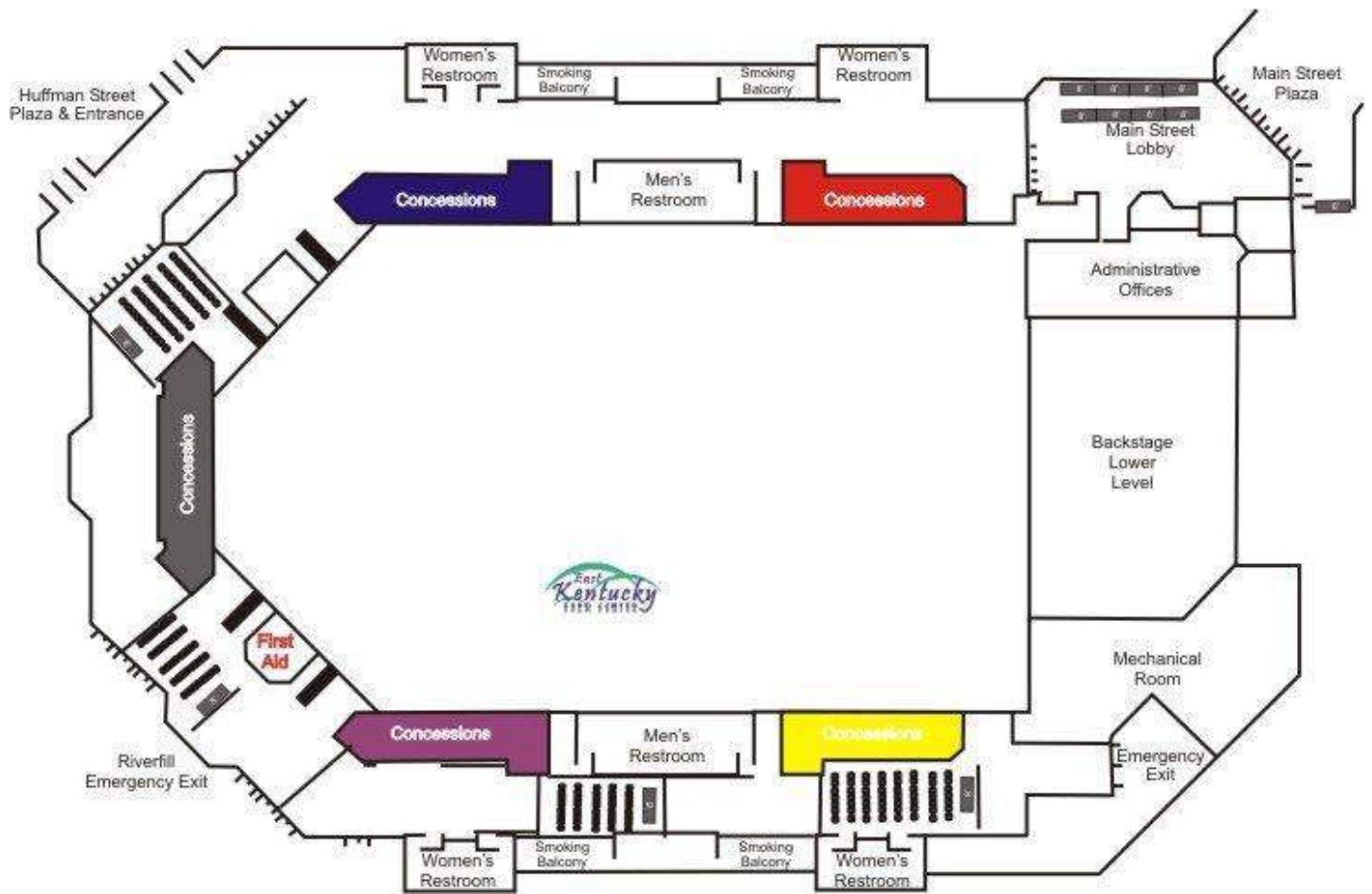
*Facilitator will carry out introductions and remind presenters/guests of the time allotted for each presentation. Facilitator will signal when 2 minutes remain as a reminder to presenters.

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		Concourse A	Concourse B	Concourse C	Concourse D	Boardroom
Breakout Segment A	9:30 – 10:20	Appalachian Leadership Lab A4	Innovative Educator Session A5	Innovative Educator Session A6	Innovative Educator Session A7	Innovative Educator Session A8
Breakout Segment B	10:20 – 11:15	Appalachian Leadership Lab B4	Innovative Educator Session B5	Innovative Educator Session B6	Innovative Educator Session B7	Innovative Educator Session B8
Lunch	11:15 – 1:05	<div style="background-color: #4F81BD; color: white; padding: 2px;">Expo Center Main Floor</div> <p>Gallery Walk to view Poster Walls Visit Vendors Lunch / Networking Student Performances</p> <p>Lieutenant Governor Crit Luallen</p>				
Breakout Segment C	1:05 - 2:05	Appalachian Leadership Lab C4	Innovative Educator Session C5	Innovative Educator Session C6	Innovative Educator Session C7	Innovative Educator Session C8
Breakout Segment D	2:05- 3:20	Appalachian Leadership Lab D4	Innovative Educator Session D5	Innovative Educator Session D6	Innovative Educator Session D7	Innovative Educator Session D8



2nd Floor





9:30 AM- 10:20 AM	Breakout Segment A		
	Appalachian Leadership Lab	Ballroom A	
	FIRE Shares		
	Concurrent Session A1 Presenter 1 – Gabbard, Clara Presenter 2 – Caudill, Jeanne Presenter 3 – Blankenship, Pam	Grade Level Preschool Preschool Kindergarten	Upper Level Lobby
	Concurrent Session A2 Presenter 1 –Tackett, Traci Presenter 2 –Salyer, Terry; Shepherd, Marc; Arms, Justin Presenter 3 – Sanders, Emely	K-6 K-12 1	Ballroom B
	Concurrent Session A3 Presenter 1 –Tackett, L. Angela Presenter 2 –McIntosh, Karen Presenter 3 –Blevins-Salyer, Lisa	2 2-3 3	Ballroom C
	Concurrent Session A4 Presenter 1 –Hall, Jeremy Presenter 2 –Maynard, Sammy Presenter 3 –Bowling, Billie Sue	5 5 6	Concourse A
	Concurrent Session A5 Presenter 1 –Carter, Mary Presenter 2 –Bentley, Carole Presenter 3 –Caudill, Allison	6-8 7 7	Concourse B
	Concurrent Session A6 Presenter 1- Doderer, Hans Presenter 2- Donour, Regina Presenter 3- Brown, Sandra	8-12 9 9-12	Concourse C
	Concurrent Session A7 Presenter 1 –Chandran, Dr. Haridas Presenter 2 –Moon, Matt Presenter 3 - Mims, Sandy	9-12 (GRANT #1) 9-12 (GRANT #1) 9-12	Concourse D
Concurrent Session A8 Presenter 1 –Arnett, Jason Presenter 2 –Cruse, Christina Presenter 3 –Flannery, Cortney	10 12 12	Boardroom Upper Level	

10:20 AM – 11:15 AM	Breakout Segment B		
	Appalachian Leadership Lab	Ballroom A	
	FIRE Shares		
	Concurrent Session B1 Presenter 1- Jones, Grethel Presenter 2 – Price, Kendra Presenter 3 – Hall, Fannie	Grade Level Preschool Preschool Kindergarten	Upper Level Lobby
	Concurrent Session B2 Presenter 1 – Cornett, Sherri Presenter 2 – Allen, Mary Presenter 3 – Roberts, Karen	K-4 K-5 (Speech) 1	Ballroom B
	Concurrent Session B3 Presenter 1– Lewis, Elisha Presenter 2 – McCoy, Christy Presenter 3 – Hall, Janice	2-3 3 3-6	Ballroom C
	Concurrent Session B4 Presenter 1 – Frazier, Rachel Presenter 2 – Howard, Tara Presenter 3 – Bailey, Minnie	4-5 5-6 6	Concourse A
	Concurrent Session B5 Presenter 1 –Gabbard, Eugena Presenter 2 –Martin, Coley Presenter 3 –Wheeler, Jason & Cantrell, Matt	7 7 9	Concourse B
	Concurrent Session B6 Presenter 1 –Cassell, Stephanie Presenter 2 –Chapman, Autumn Presenter 3 –Combs, Donna	9-12 9-12 9-12	Concourse C
	Concurrent Session B7 Presenter 1 – Anama-Green, Christopher Presenter 2 – Moon, Matt Presenter 3 – Shepherd, Shannon	9-12 9-12 (GRANT #2) 9-12 (GRANT #1)	Concourse D
Concurrent Session B8 Presenter 1 – Wright, Kendall Presenter 2 – Lovely, Melissa Presenter 3 – Adams, Billy Keith	9-12 10 11-12	Boardroom Upper Level	

STARS Stage Performers

Time	Name	School	District	Talent
11:15-11:25	Belfry Choir/Band	Belfry High School	Belfry	Singing
11:25-11:35	Emma Day	Harlan High	Harlan	Piano
11:35-11:45	Brayden Rudd	Magoffin High	Magoffin	Singing/Guitar
11:45-11:55	Brooklyn Shepherd	Magoffin High	Magoffin	Singing
11:55-12:05	Brooklynn Conley	Magoffin High	Magoffin	Singing
12:05-12:15	Cassidy Slater	Pikeville Elementary	Pikeville Independent	Singing
12:15-12:25	Lieutenant Governor Crit Luallen			
12:25-12:35	Payton Trout	Belfry High	Pike	Singing
12:35-12:45	Harley Tubbs	NP Academy	Pike	Instrumental
12:45-12:55	Regan True	Pike Central	Pike	Singing
12:55-1:05	Middle School Chorus	Hazard Middle	Hazard	Singing

Lieutenant Governor Crit Luallen

12:15-12:25

Crit Blackburn Luallen serves as Kentucky's 56th Lieutenant Governor, having been appointed by Governor Steve Beshear.

Luallen is known as one of Kentucky's most experienced and respected public leaders, after serving with six Governors and being elected twice to statewide office. Luallen was elected the state's Auditor of Public Accounts in 2003 and re-elected in 2007. Prior to that, she served nearly seven years as Secretary of the Governor's Executive Cabinet, the highest appointed position in Kentucky state government. Previous appointments include State Budget Director, Secretary of Finance, Secretary of Tourism, and Commissioner of the Department of the Arts. She also served as President of the Greater Louisville Economic Development Partnership, a regional economic development agency. In 2009 she was named Public Official of the Year by the Washington, D.C.-based magazine *Governing* for her positive impact on government in Kentucky.

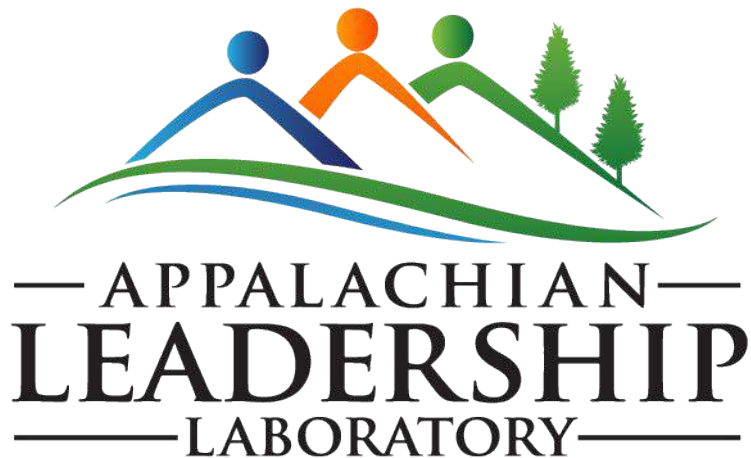
During her tenure as State Auditor, she led her team to aggressively tackle fraud and abuse, leading to the prosecution of dozens of individuals. Her work also brought a new accountability to board-governed organizations across Kentucky after a series of high-profile audits exposing mismanagement.

Luallen is a native of Frankfort, a graduate of Centre College, where she serves on the Board of Trustees, and is married to Lynn Luallen



1:05 PM – 2:05 PM	Breakout Segment C		
	Appalachian Leadership Lab	Ballroom A	
	FIRE Shares		
	Concurrent Session C1 Presenter 1 –Bingham Janet, Presenter 2 –Martin, Tamara Presenter 3 –Addington, Melissa Presenter 4 –Varney, Sheila	Grade Level Preschool Preschool Preschool Kindergarten	Upper Level Lobby
	Concurrent Session C2 Presenter 1 –Miller, Michelle Presenter 2 –Thomas, Prudie Presenter 3 –Wright, Cathy Presenter 4 –Hall, Pamela	K-6 (FMD) K-5 (Library Media Center) 1 2	Ballroom B
	Concurrent Session C3 Presenter 1 –Thomas, Stephanie Presenter 2 –Green, Angela Presenter 3 –Lewis, Kristy Presenter 4 –Rose, Randy	3-6 4 4 4	Ballroom C
	Concurrent Session C4 Presenter 1 –Hall, Jatana Presenter 2 –Haynes, Ashley Presenter 3 –Scott-Stewart, Tammy Presenter 4 –Martin, Amy	6 6 6 6-8	Concourse A
	Concurrent Session C5 Presenter 1 –Holbrook, ED. D, Rachel Presenter 2 –Slone, Carolyn Presenter 3 –Moon, Sarah Presenter 4 –Bane, Will	7 7 9-12 9-12	Concourse B
	Concurrent Session C6 Presenter 1 –Cooley, Laura Presenter 2 –Gilbert, Greta Presenter 3 –Justice, Gerald Mitchell Presenter 4 –Boles, Kelly	9-12 9-12 9-12 10-12	Concourse C
	Concurrent Session C7 Presenter 1 –Chandran, Dr. Haridas Presenter 2 –Shepherd, Shannon Presenter 3 –Kinner, Dawn Presenter 4 –Hackworth, Patricia	9-12 (GRANT # 2) 9-12 (GRANT # 2) 10-12 12	Concourse D
Concurrent Session C8 Presenter 1 –Mobley, Steve Presenter 2 –Younger, Stephanie Presenter 3 –Parsons, Andrea Presenter 4 –Howard, Amy	9-12 9-12 10-12 10	Boardroom Upper Level	

2:05 PM - 3:20 PM	Breakout Segment D		
	Appalachian Leadership Lab	Ballroom A	
	FIRE Shares		
	Concurrent Session D1	Grade Level	Upper Level Lobby
	Presenter 1 –Whisenant, Katrina	Preschool	
	Presenter 2 –Hager, Dona	Preschool	
	Presenter 3 - McIntosh, Ella	Preschool	
	Presenter 4 - Mullins, Sharon	Preschool	
	Presenter 5– Mullins, Stephanie	Kindergarten	
	Concurrent Session D2		Ballroom B
	Presenter 1 –Puckett, Frankie	K-4	
Presenter 2 - Salyers, Michelle	Pre K-8 (Speech)		
Presenter 3 –Fannin, Starla	Kindergarten		
Presenter 4 –Vanover, Vanessa	1		
Presenter 5 –Tackett, Alice	2		
Concurrent Session D3		Ballroom C	
Presenter 1 –Watts, Angie	2		
Presenter 2 –Hunt, Nikki	2		
Presenter 3 –Hall, Melissa	K-2 (Sp. Ed.)		
Presenter 4 –Halsey, Angie	3-4		
Presenter 5 –Bowling, Erin	3		
Concurrent Session D4		Concourse A	
Presenter 1 –Smith, Debra	4		
Presenter 2 –Newsome, Amy	4		
Presenter 3 –Keens, Misty	4-5		
Presenter 4 –Beasley, Paige	5		
Concurrent Session D5		Concourse B	
Presenter 1 –Fyffe, Karen S.	5		
Presenter 2 –Leckie, Carolyn	6		
Presenter 3 –McCune, Cathy	6		
Presenter 4 –Robinson, Amanda	6		
Concurrent Session D6		Concourse C	
Presenter 1 –Hall, Jason	6		
Presenter 2 –Trent, Sarah	6		
Presenter 3 –Napier, Charles David	7-8		
Presenter 4 –Stewart, Sally	8		
Concurrent Session D7		Concourse D	
Presenter 1 – Burns, Brett	7-12		
Presenter 2 – Chandran, Dr. Haridas	9-12 (GRANT #3)		
Presenter 3 – Kinkaid, Sarah	9-12		
Presenter 4 – Kuhnen, Anne	9-12		
Concurrent Session D8		Boardroom Upper Level	
Presenter 1 – Mckinney, Kayla	9-12		
Presenter 2 – Anama-Green, Jr, Emmanuel	10-12		
Presenter 3 – Kinner, Jason	10-12		
Presenter 4 – Collier, Diane Faye	11-12		



About Us



The Appalachian Leadership Laboratory is a newly designed professional learning opportunity that engages committed rural teacher leaders, principals and district administrators in an inquiry-based clinical approach to instructional problem solving for high quality, shared leadership.



The Appalachian Leadership Laboratory is a project of the Kentucky Valley Educational Cooperative and Appalachian Renaissance Initiative (A Race to the Top District Grant Awardee). Appalachian Leadership Laboratory Fellows will be instructional leaders (classroom, school, district, regional and beyond), with a highly developed inquiry orientation to instructional problems of practice that lead their schools and districts through transformation and innovation.




The first cohort of principal, teacher and district leaders (2015-2016) known as Design Fellows have been selected to not only be learners but to be an integral part of the design team for the innovative learning and results of the Appalachian Leadership Laboratory.

Come join the Appalachian Leadership Lab Design Fellows as they share their Leadership Design Challenges and their Action Research Plan to impact teaching and learning for their students.




www.appalachianleadershiplab.com



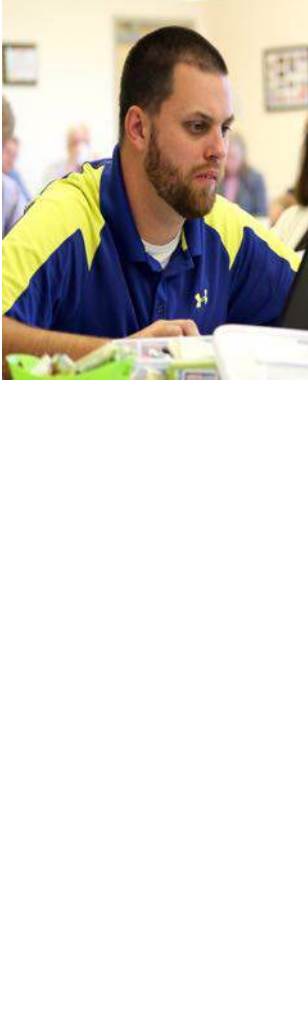
<p>Cassandra Akers, Floyd County</p> <p>Presentation Time: 9:30-9:40</p>		<p>Principal Betsy Layne High School</p>	<p>Betsy Layne High School Media Center Re-Design</p> <p>With the ever-emergent use of technology and our consistently changing world, our school's media center has become obsolete. To increase both usage and purpose, we shall re-design our media center to be more technology centered and student friendly. Our library/media center can no longer be seen as just a room in our school—it must become the center of our school. Our plan is to put together a BLHS Design Team featuring teachers, staff members, students, parents and community partners.</p> <p>Our steps to success include:</p> <ol style="list-style-type: none"> 1. The team will initially meet to discuss our students and school being focused on "Future Ready". 2. The team will reach consensus about the design 3. The team will outline a plan for implementation of the design 4. The team will Get it Done!
<p>Bryan Auxier, Paintsville Ind.</p> <p>Presentation Time: 9:40-9:50</p>		<p>Innovation Coordinator</p>	<p>Paperless Classrooms</p> <p>At Paintsville Independent we are moving toward an educational environment involving less paper. One way we are doing that is by introducing our students to Google Classroom beginning in the 5th grade. Beginning this year all of our students in grades 5-12 will be using Google Classroom. We have placed Chrome Books classroom sets in grades 5-12 so that each student will have access to them on a daily basis. We have placed the class sets at the high school in each language arts class, and we are using the class sets across the curriculum at the 5th and 6th grade levels. Next year we plan to incorporate the Class sets in 4th grade and in our social studies classes at the high school.</p>




			necessary. Other details will be conveyed to the ALL as we transcend through the planning and move towards the implementation stage.
<p>Haridas Chandran, Pike County</p> <p>Presentation Time: 10:00-10:10</p>		<p>Belfry High School High School Science Teacher Leader</p>	<p>Redesigning Instruction 1st 9 weeks for my Physical Science classes (3) I will be teaching traditional method namely giving lectures, assignments quizzes, tests and labs and seating arrangements will be rows and columns. During this time I will take pictures to compare with the 2nd 9 weeks method. 2nd 9 weeks, I will completely change the settings by having 4 stations, consists of study section, discussion sections, lecture, hands on activities and presentations. This will be done by the students and my role will be mentoring. Grading schemes will also change. Frequent pictures will be taken during this process. End of the 2nd 9 weeks, I will ask my students to compare the method of teaching and request them to critique the method of teaching and which gave them the depth in understanding the concepts. I will continue the redesigned model for the entire 2nd semester</p>
<p>Stacey Davidson, Owsley County</p> <p>Presentation Time: 10:10—10:20</p>		<p>Instructional Supervisor</p>	<p>Personalized Professional Learning My capstone project is centered around personalized professional learning for teachers. At the end of the 2014-2015 school year, all teachers completed a professional learning needs survey. The professional development plan for the district was designed based on this feedback, and all teachers have a plan specifically designed for the needs they have identified. This project also includes a teacher leadership component.</p>

<p>Mark Gannon, Pike County</p> <p>Presentation Time: 10:20-10:30</p>		<p>Principal Belfry High School</p>	<p>Student Space A student-led team will propose, plan, design and build a student-centered space at Belfry High School. Administration will meet with the student leadership team (Principal's Cabinet) and one staff member (who will oversee the plan) to introduce the idea. After the initial meeting, the Principal's Cabinet will be responsible for the planning, designing and creating the "space." One staff member will periodically meet with the students to monitor progress. Students will be given a budget and will be responsible for creating, buying, building, etc... any of the furniture and/or items they may need. Students will research ideas and samples of other high school student lounges as a beginning point of reference.</p>
<p>Angie Halsey, Wolfe County</p> <p>Presentation Time: 10:30-10:40</p>		<p>Campton Elem 3rd/4th Grade Teacher</p>	<p>Collaborative Outdoor Classroom In my capstone project I am doing an outdoor classroom design that will help boost our school moral between staff and students. Through the ARI mini grant and money provided through our capstone, students and staff will work together to create an outdoor learning space with a greenhouse, picnic tables, flowerbeds and other interactive resources. This area will be one of a kind, and with the help of community members, parents, and students from other schools, we hope to create a learning environment outdoors that extends the amazing things happening inside.</p>
<p>Brent Hoover, Knott County</p> <p>Presentation Time: 10:40-10:50</p>		<p>Technology/Transportation Director</p>	<p>Redesigned Student Space Our capstone project will be based on implementing ideas from the leadership team at Knott County Central High School. The team has decided to create an innovative lunch room environment. We plan to implement a "display device" on the wall to help students make more informed choices about menu items. Develop and implement a policy allowing students time during the day to walk. Students will have opportunities to earn fitbits. STLP students will be available during lunch to help students install free apps to</p>

<p>Jill Maynard, Pike County</p> <p>Presentation Time: 1:00- 1:10</p>		<p>Principal Southside Elementary School</p>	<p>Personalized Professional Learning</p> <p>After careful consideration, my Capstone Problem of Practice will be “How Can I Personalize Professional Learning for all my Teachers.” To begin this project, I surveyed my teachers to determine their individual needs for their Professional Growth Plan and/or other areas in their field. From the surveys, I am planning a beginning of the year Professional Development Day where each of these needs will be addressed. Then after the training day, I plan to have my teachers do an evaluation to determine one of two things:</p> <ol style="list-style-type: none"> 1. If this professional development didn’t meet my need(s), what specifically do I need now to further my personal development. 2. If this professional development did meet my need(s), what area do I now need to explore to enhance my learning. In addition, please provide evidence of how your instruction will change in response to what you have learned. <p>In the next month or so, our faculty will revisit their professional needs to determine next steps. I also hope to have teachers share with each other what has changed in their instruction or teaching due to their new knowledge and skills from the trainings. Furthermore, I will keep an ongoing update of my teachers’ continual growth and needs so that throughout the school year, I can continue to work with them to ensure their personalized professional learning flourishes through the year.</p>
<p>Tony Maxwell, Middlesboro Ind.</p> <p>Presentation Time: 1:10- 1:20</p>		<p>Principal Middlesboro Elementary</p>	<p>Creating a Family Friendly School (culture)-</p> <ul style="list-style-type: none"> -Increase our family engagement -host midterm events -host family nights to educate and build relationships -host 4 additional conference days (10-6) -tutoring center open -The Leader in Me connection to families -Common Core trainings -Leadership/Goal Notebooks -Improved communications -Create opportunities for social

			interactions
<p>Lisa Blevins-Salyer, Johnson County</p> <p>Presentation Time: 1:20-1:30</p>		District Technology Integration Specialist	<p>Personalized Professional Learning and Blended Learning</p> <p>During the 2015-2016 school year, I will be assisting teachers in developing a Technology Integration Personalized Plan. I will collaborate with teachers throughout the school year to ensure they have the support and resources needed to achieve their personalized technology learning goals. Once their goals are achieved, new goals will be established. Additionally, I have created a pre/post rubric for an identified group of teachers to track their development on selected blended learning tools. The purpose of the project is to determine if creating these individualized plans and targeting specific blended learning software increases teacher/student learning and engagement.</p>
<p>Emely Sanders, Jenkins Ind.</p> <p>Presentation Time: 1:30-1:40</p>		Jenkins Elementary 1st Grade Teacher	<p>Innovative Learning Spaces</p> <p>I've always believed that creating a warm and caring learning environment was an essential component to education. Even in college, before having my own classroom, my soul burst with passion on this topic. Now that I am a teacher in the 21st century, with a room filled of 6 and 7 year old "21st century kids" I am even more convinced! In 2015 our children should spend an 8 hour school day in a room that looks like it belongs in 2015. However, so many of our classrooms across the country look a little 1915ish. The desks are in rows. The teacher is in the front. Sometimes the teacher needs to be in the front. But, some of the best learning takes place when the teacher is somewhere in the middle, facilitating.</p>
<p>Wayne Sizemore, Breathitt County</p> <p>Presentation Time: 1:40-1:50</p>		Director of Special Education	<p>Mentoring</p> <p>I am focusing on creating a strong mentoring system at our high school for our students with special needs. We have a working model, but I would like to take this a step further and build a strong mentoring foundation that will be the model for the the whole high school.</p>

<p>Mary Stiltner, Pike County</p> <p>Presentation Time: 1:50- 2:00</p>		<p>Innovation Coordinator</p>	<p>Personalized Professional Learning My project will be to design/implement an innovation strategy to disseminate /facilitate professional learning activities across our district. Because of the size and geographical challenges of our district and the desire to protect the instructional time of our students there is a need to reconsider the traditional train the trainer and stand and deliver those professional learning events</p>
<p>Wilma Terrill, Wolfe County</p> <p>Presentation Time: 10:30- 10:40</p>		<p>Innovation Coordinator and PGES Coordinator</p>	<p>Personalized Professional Learning My Capstone focuses on personalized professional learning within our district. I plan to survey teachers and principals for their professional learning needs, and will meet with teachers/principals to get feedback for improving Professional Growth Plans. I see this as a need in our district and it will help me while planning for our district summer professional learning sessions.</p>
<p>Ricky Thacker, Floyd County</p> <p>Presentation Time: 2:00- 2:10</p>		<p>Betsy Layne High School High School Math Teacher Leader</p>	<p>Innovative Learning Spaces As I entered my 9th year of teaching at Betsy Layne High School I was presented with an opportunity to move classrooms. Through my previous 8 years of teaching my classroom environment was similar to a 1915 classroom that had no access to technology. I had 5 rows of 5-7 desk in each row. Students were working individually and there was little collaboration between students. My former classroom was teacher centered. My capstone idea is to re-design the learning space. With the addition of the district's 1:1 technology initiative every freshmen was given a laptop computer. I wanted to create a student centered classroom. My vision of my room was having a room that had white boards around the walls for students to use. Instead of desk, students would be standing behind countertops. The countertops would serve as the students work station. In the center of my room I would acquire chairs to create a theater or forum type atmosphere. To develop a positive climate, I decided to paint the walls with bright colors. With the help of my</p>

			wife, we decided upon the colors of orange and yellow. This classroom re-design was needed due to increasing students retention rate. Attached is some pictures of the change from teacher centered to student centered
Susan Watts, Breathitt County		Innovation Coordinator	Student Agency/Student Leadership For our capstone project, we plan to establish student leadership teams at Sebastian Middle School and Breathitt County High School to work to improve school culture. We will collaborate with school administrations and student senate members to build this student leadership team, as we incorporate some of the Maxwell work to grow our student leaders. The Student Agency initiative of the ARI grant will be a tremendous asset to help with this project.
and			
Reggie Hamilton, Breathitt County		Principal Sebastian Middle School	
Presentation Time: 2:10- 2:20			
Denise Yonts		Director of Curriculum and Instruction	Using Teacher Leaders Effectively Each time a school or district sends teachers to a professional learning/ development/ training, we face the challenge of how to share the information with the appropriate teachers when they return. The larger the district, the bigger the challenge becomes. My goal is to create a structure for teacher leaders to return to our district and share new information with the appropriate colleagues. My goal is to research what structures other districts have in place and then try several to see which is most effective for my district. Having a clear line of communication and structures in place will help to create a culture of growth and effectiveness.
Presentation Time-2:20- 2:30			

2015-2016 ARI Student Senate Members

Breathitt County

Zachary Eiserman



Alley Spencer



Floyd County

Alex Sisco



DeAnna Kidd



Harlan

Emma Day



Abbi Landis



Hazard

Lindsey Ambrose



Stacie Fugate



Jackson Independent

Josiah Henson



Sheyanne Trent



Jenkins Independent

Lindsey Belcher



McKnezie Gibson



Johnson

Olivia Burchett



Michael Hamilton



Knott

Ashley Bergman



Carley Weinberg



2015-2016 ARI Student Senate Members

Lee

Austin Abney



Cierra Charles



Magoffin County

Kelsey Cole



Emily Parsons



Owsley

Brandon Combs



Thea Smith



Pike County

Jamison Coleman



Taryn Syck



Wolfe

Kira Hughes



January Moore



Letcher

Kiley Short



Ashley Benton



Middlesboro Independent

Noah Brown

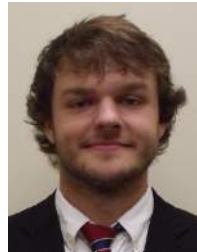


Rebecca Prichard



Paintsville Independent

Matt Miller



Susanna Goggans



Pikeville Independent

Michael Gaunt



Ryan Crum



2015-2016 ARI Student Senate Majority Leaders

Name	District	Email Address
David Kyle Abner	Breathitt	David.abner@breathitt.kyschools.us
Will Bane	Floyd	William.bane@floyd.kyschools.us
David Hensley	Harlan	David.hensley@harlan.kyschools.us
Jocelyn White	Hazard	Jocelyn.white@hazard.kyschools.us
Chris Noe	Lee	Christopher.noe@lee.kyschools.us
Faye Collier	Letcher	Diana.collier@letcher.kyschools.us
Justin Bailey	Magoffin	Justin.bailey@magoffin.kyschools.us
Laura Carter Stone	Middlesboro	ljcstone@gmail.com
Rosalind Stanley	Pike	Rosalind.stanley@pike.kyschools.us
Rebecca King	Pikeville	Rebecca.king@pikeville.kyschools.us
Bryan Auxier	Paintsville	Bryan.auxier@paintsville.kyschools.us
Lincoln Spence	Owsley	Lincoln.spence@owsley.kyschools.us
Angela Thornsberry	Knott	Angela.thornsberry@knott.kyschools.us
Chad Rudd	Wolfe	Chad.rudd@wolfe.kyschools.us
Christopher Anama-Green	Jenkins	Chris.anama-green@jenkins.kyschools.us
Jeff Coots	Jackson	Jeff.coots@jacksonind.kyschools.us
Noel Crum	Johnson	Noel.crum@johnson.kyschools.us

ARI Student Senate 2015-2016

Thirty-four ARI Student Senate Members from 17 Southeast KY School Districts have developed a district PLAN that will be posted to theholler.org of the work they have led in their respective school districts. District PLANS are implemented in all middle and high schools in all ARI districts.

Focus areas of district plans are:

1. **School Culture Building Activities**
 - a. Making Everyone Feel a Sense of Belonging
2. **Community Service Activities**
3. **Education**
 - a. Attendance
 - b. Academics
 - c. Behavior

ARI Student Senate Members have chosen to be a part of a sub committee for 2015-2016. Look for the new and exciting work that will come from the sub committee work around the region.

The sub committees are:

1. **Kentucky Youth Assembly**
2. **Community Problem Solving**
3. **Student Voice**
4. **Economic Development**



S.T.A.R.S 2015-16

Students Transforming Appalachia with Real-world Solutions

Many opportunities are available through the Appalachian Renaissance Initiative for students to become actively engaged in real world learning. Students Transforming Appalachia with Real-world Solutions is the title for the following learning opportunities:

- **Student Senate**

One junior and senior student from each ARI school district work to create a district PLAN that will enhance school culture, academics, attendance, behavior and community service. Student Senate members also serve on one regional sub-committee. Sub committees are KY Youth Assembly, Community Problem Solving, Student Voice and Economic Development.

- **High School Entrepreneurial Project**

High School students work through a business canvas to create a business plan for their self create business. Students compete against other high school students and have the opportunity to be awarded up to \$2,000.00 in prize money. The high school competition will take place at UPIKE on November 19, 2015 beginning at 9:00 a.m..

- **Middle School Entrepreneurial Project**

Middle School students work through a ten-day curriculum on how to build a business plan for the business they have chosen to create. Students become engaged in the project based learning activities to build their “real” business. Students participate in a “Shark Tank” experience to make improvements to their business plan. The regional MS Entrepreneurial competition will be in the KVEC building beginning at 9:00 a.m. on November 12, 2015.

- **Virtual Art Gallery**

The Virtual Art Gallery provides students in grades 4-12 the opportunity to write, illustrate and publish their own book. Students connect from their own classroom for eight sessions with an Author/Illustrator that walks them through the process of writing and illustrating a book. Sessions are recorded to theholler.org for teachers to use at their convenience if they are not able to join at the scheduled time. For more information or if you want to participate, visit the Virtual Art Gallery booth on the concourse today.

Mini grants are awarded to teachers that participate in the training and choose to implement the STARS projects in their classrooms. The following mini -grant recipients will be in attendance at the Action Research Summit in the spring to share the data collected during the implementation of their projects:

1. Breathitt	Susan Watts	Breathitt County High School	Clinging to our Bobcat Pride
2. Breathitt	Charles D. Napier	Sebastian Middle School	Let Them Live!
3. Breathitt	Charles D. Napier	Sebastian Middle School	A Healthier, Happier Tomorrow
4. Breathitt	Cathy McCune	Sebastian Middle	Academy Designs
5. Hazard	Sherri Cornett	Roy G. Eversole	A Place to Play
6. Johnson	Rachael Slone	W.R. Castle	The Missing Link
7. Johnson	Kristen Sergent	Porter Elementary	C.O.P.E.
8. Johnson	Pam Burton	Flat Gap Elementary	Operation Rescue: Restore the Habitat
9. Letcher	Misha Hall	Letcher Elementary	Kennedi's Kitties (\$250.00)
10. Letcher	Misha Hall	Letcher Elementary	S.C.U.T.E. (Cleaning Up the Environment)
11. Letcher	Myrtle Boggs	Arlie Boggs	Cute As A Button
12. Letcher	Sarah Maggard	Arlie Boggs	#BeatBearSafety
13. Magoffin	Andrea Parsons	Magoffin High	Dawkins Trail Beauty Captured
14. Magoffin	Melissa Lovely	Magoffin High	Feed the World, Sustain the Planet
15. Magoffin	Tara Howard	Salyersville Grade School	Beautifying our Community/Leadership
16. Paintsville	Cindy Tackett	Paintsville Independent	Tiger Tees
17. Pike	Haridas Chandran	Belfry High School	3D Printer (Orthotic, Prosthetics)
18. Pike	Kellie McLellan	Phelps High School	Hornet Spirit Store
19. Pikeville	Mary Ann Prater	Pikeville High	Preppy Panther
20. Pikeville	Traci Tackett	Pikeville High	Connecting Farms to Schools

ARI NEXT GEN TEACHER LEADERSHIP ACADEMY PARTICIPANTS

Breathitt County

Charles David Napier
Deana Moore
Tammy Keene
Karen McIntosh
Jeremy Hall
Wallace Bates

Floyd County

Lynn Duncan
Janie King
Ashley Short
Crystal Akers
Amie Hall
Stephanie S. Akers
Kristin Hatfield
Amanda Baker
William Watts
Shane Simpkins
Patricia L. Handshoe
Kayla McKinney
Kelly Boles
Brandon Gearheart
Karen Bailey Miles

Harlan County

Nancy Cantrell
Rachel Huff
Chamayne Johnson
Sherri Evans
Tracy Spurlock
Terri Jenkins
John Middleton
Stacy McCreary
Kenny Hughes

Hazard Independent

Amber Engle
Derek Allen
Brittany Wolfe

Jackson Independent

Megan Byers
Sylvia Havicus

Jenkins Independent

Chris Anama-Green
Sabrina Tackett

Johnson County

Lisa Salyer
Justin Arms
Wendy Davis
Kristy Frazier
Casey Salyers
Jamie Harless
Andrea Salyers
Rachel Holbrook

Knott County

Jared Huff
Ronald Huff
Josh Hurt
Brent Hall
Nicole Ritchie
Megan Mosley
Laurie Shepherd
Angela Thornsberry

Lee County

Carol Napier
Tony Barrett
Joy Neace
James Daily

Letcher County

Myrtle Boggs
Misty Lowe
Valerie Spangler
Gina Dotson
Mary Carter
Amber Stewart
Vanessa Vanover
Deborah Sexton
Faye Collier

Magoffin County

Jennifer Howard
Jessica Francis
Adrienne Howard
Elizabeth Tackett
Tara Howard

Middlesboro Independent

Randy Rose
Jenna Voges
Evan Robinson

Owsley County

Jennifer Hall
Jason Hall

Paintsville Independent

Mark Shortridge
Stephanie Tiller

Pike County

Haridas Chandran
Christina Jewell
Suzanne Henson
Melissa Webb
Rebecca Bowling
Lindsay Branham
Elizabeth Ramey
Melanie Belcher
Paul Bret May
Suzann Preece
Michael Coleman
Jennifer Baisden
Jessica Slone
Connie McKinney
Nikki Gillam
Cindy Johnson
Alice Tackett
James Matthew Moon
Heather Ratliff

Pikeville Independent

Jeri McNamee
Kim Clevinger

Wolfe County

Sasha Creech
Sally Stewart
Alberta Salyers
Angie Halsey
Brandy Williams

ARI NEXT GENERATION LEADERSHIP ACADEMY PARTICIPANTS

Breathitt County

David Gibson
Susan Watts
Wayne Sizemore
Phillip Watts
Jennifer Spencer
Donna Fugate
Derek McKnight
Lisa Miller
Leslie Cable
Shirley Spencer

Floyd County

Rachel Crider
John Kidd
Kim Potter
Kathy Shepherd
Melissa Turner
Denise Isaac
Leslie Ousley
Donna Robinson
Tommy Poe
Wes Halbert
Larry Begley
Cassandra Watts
Lori Bricken
Cynthia Turner
Courtney Derossett

Harlan County

David Hensley
David Burkhart
Brent Roark
Jody Gilliam
Jeff Phillips
Jonathan Perkins
Eric Bowling
Mike Scott
Jeanne Lee

Hazard Independent

Sandra Johnson
Kevin Combs
James Hughes
Vivian Carter

Jackson Independent

Charles J. Coots
James Yount
Stacy Linn
Lonnie Morris

Jenkins Independent

Stacy Collier
Serena Anderson
Sherry Wright
Eddie Whitaker
Christle Carter

Johnson County

Jeff Cochran
Joey Estep
Monica Daniel
Shawn Castle
Robert Younce
Sandy Music
Brenton Dials
Steve Young

Knott County

Kim King
Kelly D. Hall
Brent Hoover
Bobby Pollard
Brent Hall

Lee County

Steve Carroll
Jim Evans
Karen Angel
Mark Murray
Maureen Patrick

Letcher County

Tony Sergeant
Stacy Isaac
Gracie Maggard
Wendy Madden
Ricky Warf
Josh Yonts
Robert Hammonds
Jeff Mike
Freddie Terry
Bart Frazier
Denise Yonts
Twyla Messer

Magoffin County

Angela Skaggs
Bronna Francis
Chris Meadows
Garland Yates
Willie Cole

Middlesboro Independent

Steve Martin
Bobby Bennett
Bill Jones
Tony Maxwell
Sheila Smith
Tina Johnson

Owsley County

Tim Bobrowski
Gary Cornett
Stacey Davidson
Alan Taylor
Charles Davidson
Tina Bobrowski

Paintsville Independent

Bryan Auxier
Joe Schmitt
Margy Rapier

Pike County

Mary Stiltner
Mark Gannon
Jeremy Howard
Amy Swiney
Tonya Dillon
Rhonda Jarrell
Kevin Justice
Alma Lockhart
Geary Walton
Susan Patton
Danny Adkins
Mike Potter
Barry Birchfield
Angie Lester
Jason Sanson
Steven Taylor
Greg Napier
Jill Maynard
Jimmy Tackett

Pikeville Independent

David Thomas
Robert Jones
Mary Belcher
Johnny Belcher

Wolfe County

Sam Dunn
Amanda Perry
Brian Creech
Nick Brooks
Greg Creech
Wilma Terrill

Telehealth

Kentucky Valley Education Cooperative and Kentucky River District Health Department have collaboratively placed **telehealth** units in five rural schools.

Telehealth is the use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health, and health administration.

Because we live in a rural area many of our students do not have access to convenient health care. When our students or staff get sick they can go to the school nurse and be connected to a practitioner through the telehealth unit for diagnosis and treatment. The student or staff can then get access to any necessary medication or care.

A student's health and wellness cannot be separated from their ability to learn. Our goal for this new program is to increase seat time for our students, increasing our attendance rate, which directly impacts learning.





Vision Statement

The vision of the Appalachian Technology Institute is to create a technological “Appalachian Renaissance” by creating a culture of creativity, innovation and design thinking in our youth. The Appalachian Technology Institute will be THE model of rural innovation and technology education in the nation.

Mission Statement

With the assistance of many partners, a model educational program will be developed which will deliver world-class technology learning opportunities to students in Eastern Kentucky. The acquisition of these high level skills will allow our students to compete in the global economy.

Institute Faculty

Kelli Boles	Doug Barnett
Matt Hudson	Stephanie Younger
John Robinson	Dave Kelton
Luke Gilley	Chris Anama-Green

Curriculum

The Appalachian Technology Institute is being designed to give students world-class educational opportunities. The ATI will work with the Kentucky Department of Education to offer and create educational pathways that will promote economic development in the area. The goal of the ATI is to offer courses in the following career paths:

- Computer Science
- Aviation
- Aerospace Engineering
- Entrepreneurialism*

*Entrepreneurialism pathway will be combined with the other technical pathways

Course Offerings Year One

- Introduction to Computer Programming (110201)*
- Fundamentals of Aeronautics and Aerospace (210226)



Promising Practices



Adams, Billy Keith

billy.adams@letcher.kyschools.us

District/School: Letcher County, Letcher County Central High

Grade Level: 11-12

Project Title: Studio 1062: Full Exposure to Media Arts!

Learning Innovation Grant Recipient



Students will meet daily during 5th period-- Broadcast Journalism. During class time, students will be exposed to all aspects of media arts. Students will become skilled in producing news segments, editing, videography and anchoring. Students will write news articles and be the creative forces for all facets of the class. Students will broadcast a weekly newscast throughout our school. This class will be effective in exposing all students to media arts. By the end of the year, students in this class will have a deeper understanding and knowledge of the field should they pursue a degree in film, media or journalism.

Addington, Melissa

melissa.addington@letcher.kyschools.us

District/School: Letcher County, West Whitesburg Elementary

Grade Level: Preschool

Project Title: iPad to the Rescue

Preschool Innovation Grant Recipient



Preschool teachers engage students in hands-on activities in 5 developmental areas: communication, cognitive, personal/social, adaptive and motor to meet IECE standards. An innovative way to meet standards and increase student knowledge is through technology. Project iPad to the Rescue uses iPads in small group and in learning centers allowing preschoolers to interact with math apps. This grant will focus on student knowledge of shape identification, number recognition and one to one correspondence and the impact technology can have with these readiness skills.

Allen, Mary

mary.allen@mboro.kyschools.us

District/School: Middlesboro Independent, Middlesboro Elementary

Grade Level: K-5, Speech Pathology

Project Title: Speech Therapy Burst

Learning Innovation Grant Recipient



As a school-based speech language pathologist, an area of concern and focus is providing the optimal service delivery to fit the varied needs of different students with speech or language impairment. The focus of this proposal is to address the needs of students who demonstrate difficulty with speech sound production as quickly and effectively as possible. To address the issue, 4 iPad minis with speech apps will be used by students in a speech resource setting and in their general education classrooms. The students will be trained to judge their own sound production—whether correct or incorrect—at each level (word, phrase, reading, conversation) during frequent, brief and intense individual “therapy bursts” of specially designed instruction.

Anama-Green, Christopher

chris.anama-green@jenkins.kyschools.us

District/School: Jenkins Independent, Jenkins Middle/High School

Grade Level: 9-12

Project Title: HABLAMOS! Using personal voice recorders to improve second language acquisition

Learning Innovation Grant Recipient



This project focuses on the use of personal digital voice recorders in the Spanish classroom as a means to help students: a) improve their Spanish language accent and b) improve language syntax. Through the project, students should learn to self-correct more often with reduced need for teacher intervention. During the project, students will be exposed to a variety of accents from Spanish-speaking countries, including those from Spain, Central and South America, and the United States. Students will be encouraged to develop an accent/pronunciation style using the cultural accent(s) with which they are most comfortable.

Anama-Green, Jr, Emmanuel B.

emmanuel.anama@harlan.kyschools.us

District/School: Harlan County, Harlan County High School

Grade Level: 10-12

Project Title: Let's Travel to Latin America in One Day, via Harlan County Kentucky

Learning Innovation Grant Recipient



Currently I teach Spanish 2 and Dual-Credit Spanish 101 and 102. My project seeks to augment student engagement in the classroom by emulating the effects of a study abroad experience in the course of one school day. I plan to collaborate with cross-curricular teachers (I.e. Social Studies, Culinary, English/Writing, Mathematics, etc.) and take students to the socio-linguistically diverse community of Morristown, TN (under two hours from Harlan). Here, the students will conduct inquiry-based research at "panaderías," "tortillerías," "supermercados mexicanos," and others. While here, students will purchase items solely in the target language and interview native speakers about their experiences and culture. Students will then present their research to other classes in the school (and perhaps beyond).

Arnett, Jason

jason.arnett@magoffin.kyschools.us

District/School: Magoffin County, Magoffin County High School

Grade Level: 10

Project Title: How do we feed the world?

Learning Innovation Grant Recipient



What is the Future of Farming? After reading informational texts, researching and using information from participation in designed experiences, students will be asked to create a presentation that includes identifying a problem related to farming practices, feeding 9 billion people by 2050, and proposing a solution. Students will share their solutions through a business plan that they will present to potential "investors." Students will be introduced to a variety of creative approaches in developing effective solutions, including vertical farming, stem cell meat, fish farming, developing perennial crops, rooftop farming, adjusting the food culture, nutrigenomics, and aquaponics. At the end of the students' business plan presentations, we will select aquaponics as the solution we can implement now. Then, students will be given the task of engineering a blueprint for an aquaponics system. After the initial research and blueprints have been finished, we will work together as a class and build a functioning and producing aquaponics system. After the aquaponics system has produced its first yield, students will collect data on the percent yield vs. cost. With the information the students have gained through this project, they will create a final business model and presentation. The project outcome will be evaluated by the Functionality of the Aquaponics system and business model for that system created by the students. The timeline for the completion of the project will be the 2015-2016 school year.

Bailey, Minnie

minnie.bailey@harlan.kyschools.us

District/School: Harlan County, Cumberland Elementary

Grade Level: 6

Project Title: CES First Lego League

Learning Innovation Grant Recipient



The goal of this grant is to motivate, to engage, and to provide my students a real-world application of mathematics beyond the KY Core Academic Standards. The students will be actively learning through the kinesthetic-tactile experiences, designing and building, testing and programming robots using LEGO EV3 Mindstorms technology. My students will connect their own interests and motivations to find solutions to a challenge. They will be actively engaged in problem-solving and encouraged to formulate questions and express their ideas to adapt existing knowledge with new information. By participating in the First Lego League (FLL), students will be given the opportunity to use problem-solving, project-based activities, which integrates STEM and pre-engineering concepts, such as physical science, mathematical-thinking, engineering, technology and applications of science. The design challenge for FLL this year is “Trash Trek,” where students will research recycling possibilities for making our world a better place. Students will learn critical thinking, team building and presentation skills. They will also have opportunities to reflect on activities and contemplate decisions made with an awareness of core content, as well as the process of learning to explore new solutions for the challenge-at-hand. Students will be encouraged to explore and extend their understandings outside the classroom.

Bane, William

william.bane@floyd.kyschools.us

District/School: Floyd County, Betsy Layne High School

Grade Level: 9-12

Project Title: Floyd County Living History

Learning Innovation Grant Recipient



High school history and geography students will create an interactive digital timeline of recent history arranged by era and theme. The focus will be on issues and perspectives in the local community. In order to accomplish this project, students will write questions and conduct video and audio interviews of community members in Floyd County about a variety of historical and geographic topics. These interviews will be compiled and preserved as authentic local primary sources that can be used in future coursework.

Beasely, Paige

paige.beasely@breathitt.kyschools.us

District/School: Breathitt County, LBJ Elementary

Grade Level: 5

Project Title: Sitting in the 21st Century Classroom

Learning Innovation Grant Recipient



Nearly 13 million children between the ages 2-19 are obese. Flexible seating classrooms allow students opportunities to be more active throughout the school day. This type of classroom increases posture, alertness, and focus. Active seating has been proven to increase core strength. Students will begin by tracking their activity level using pedometers in a traditional classroom arrangement. Desks and chairs will be replaced with stability balls, Wobble Seats, balance discs, rocker chairs, and beanbags. Students will again track their activity level within the new classroom arrangement. They will analyze and graph their data. Students will complete an action research cycle through this project-based learning experience.

Bentley, Carole

carole.bentley@floyd.kyschools.us

District/School: Floyd County, Allen Central Middle School

Grade Level: 7

Project Title: How Cheap Can You Go?

Learning Innovation Grant Recipient



Students will learn more than just the science behind the car—force, motion, acceleration—they will also become aware of the economics involved in any invention. The plan is not only for the science to drive the curriculum developed, but also reinforce to students the costs involved, including the efficient use of resources. There are many avenues for this project to be a successful and powerful learning opportunity for students to “think outside the box” and connect their learning to real-life. The area of focus for this project is Energy, Motion, & Economics. The problem of practice will include the design of a car—on a fixed budget--that will travel the longest distance in the shortest amount of time. The plan of action is to develop the curriculum that will support learning science content through the exploration of engineering standards as established by NGSS that allows students to experience creativity, failure and success

Bingham, Janet

janet.bingham@knott.kyschools.us

District/School: Knott County, Jones Fork Elementary

Grade Level: Preschool

Project Title: Technology: A Link to Alphabet Knowledge for Kindergarten Readiness

Preschool Innovation Grant Recipient



By integrating technology in to the classroom, students will use tablets to prepare them for kindergarten readiness skills. The skills needed include: alphabet knowledge, phonological awareness, letter recognition and application toward pre-reading and writing skills. Students will learn that letters have names and sounds. Letters make words, and words convey thoughts and ideas to oneself and others that can be written down and read. The focus will be on students matriculating on to kindergarten, with an emphasis on alphabet knowledge for those students returning to preschool.

Blankenship, Pam

pam.blankenship@paintsville.kyschools.us

District/School: Paintsville Independent, Paintsville Elementary

Grade Level: Kindergarten

Project Title: ...Shh, don't let them know they're learning

Learning Innovation Grant Recipient



The focus of this project is to create an innovative learning environment for students that encourages social and cognitive growth. Classroom teachers today are faced with the difficult issue of keeping multiple students with different learning styles engaged in activities. By implementing the use of iPads and an Osmo, I hope to reach all my students and provide them with opportunities to perform classroom objectives in real-world settings rather than just using paper and pencil activities.

Blevins-Salyer, Lisa

lisa.salyer@johnson.kyschools.us

District/School: Johnson County, Highland Elementary

Grade Level: 3

Project Title: Integration of 21st Century Fluencies & Primary Classroom Instruction

Learning Innovation Grant Recipient



The problem of practice will be addressed by effectively modeling and engaging students in 21st Century Fluencies as part of their daily educational experience. Students will be actively involved by completing a pre- and post- assessment survey of their awareness of Appalachian authors using Google Forms. The students/instructor will design rubrics that incorporate the fluencies. Students will read various Appalachian Children's Literature. An Appalachian author will be a guest speaker via video conferencing. Students will then select an Appalachian author to study. They will build a digital research folder using icurio. Next, students will access their research writing assignment through Google Classroom. They will follow the writing process and receive peer/instructor feedback throughout the development of the writing exercise using Google Docs. Additionally, students will discuss ideas and progress of their project through Google Classroom in order to build peer collaboration techniques and provide meaningful feedback. Students will create a Voki to grab the attention of viewers and give an overview of their study. Students will then use their Voki, writing, images and research to create a digital poster. Students will be videoed giving oral presentations using the Mondopad. They will critique their presentations and media. They will receive reviews from the instructor/peers of their presentation and digital media. Students will take this information and continue to develop their presentation skills along with making adjustments to their digital posters. Once this process is completed, students will present again and follow the same review process. The final presentations will be uploaded to the class Youtube Channel, class webpage and the Holler for global publication.

Boles, Kelly

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District/School: Floyd County, Betsy Layne High School

Grade Level: 10-12

Project Title: Collecting and Interpreting Real-time Data in AP Statistics

Learning Innovation Grant Recipient



"Collecting Real-Time Data" is an AP Statistics project that enables students to collect quantitative data from team and individual video game experiences. To collect this data, students will play various Xbox One games and record lap times and bowling scores, for example. The collected data will then be used to construct and compare parallel team boxplots, describe distributions and run various statistical tests. The goal of the project is to enhance student mastery by making the data collection, description, comparison, and inference processes more interactive and interesting to students.

Bowling, Billie Sue

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District/School: Hazard Independent, Hazard Middle School

Grade Level: 6

Project Title: Market Mania: A Personalized Approach to Economics

Learning Innovation Grant Recipient



In the unit "Market Mania" students will complete a long-term project at their own pace. This unit will address the economic content standards already in place in a more individualized process. At the beginning of the year students will be introduced to the project and do their own research. The project will require students to apply for jobs, keep a personal finance account, design a product, market the product, and actually design and sell the product as well. Students will use technology to enhance their projects. The project will also allow students to focus on their strengths and take control of their own learning

Bowling, Erin

erin.bowling@johnson.kyschools.us

District/School: Johnson County, Porter Elementary

Grade Level: 3

Project Title: #ienrich #getdigiwithit

Learning Innovation Grant Recipient



Tablets have become part of everyday life and are often more appealing and easier to use than the traditional computer. Tablets have made it easier to create and share content, as well as differentiated lessons and instruction for students. After much research, there are apps that qualify as rigorous and enriching. Enrichment students will work within the 4 main subject areas to create lessons to teach to the class. Students will have the opportunity to teach various lessons, including dissecting frogs, cursive handwriting lesson, book studies and multiplication, for example. Students in the enrichment program will also learn to speak Spanish using the iPad mini. They will be asked to create a lesson, plan an activity, and teach a

Spanish lesson to fellow students. All students will have access to the iPads and use them daily. The iPads will be used daily in small group reading instruction and as a listening center for individualized and differentiated instruction. Students will take part in “Daily 5” activities. Daily 5 activities include listening to reading, reading to oneself, reading to someone, writing and word work. The iPads can be used in all areas of a daily 5 classroom. The project objective is to improve overall enrichment time in a fun and innovative way.

Brown, Sandra

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District/School: Pike County, Belfry High School

Grade Level: 9-12

Project Title: Developing a Student-Based “Holidays at the Library” Collaboration Project with Belfry Library

Learning Innovation Grant Recipient



Belfry High School ‘s Library Student Council--in collaboration with the Belfry Public Library--will host “Holidays at the Public Library” once a month during October through April. Student members of the Belfry High School Library Student Council will assist elementary students to read, create and connect with other cultures by learning about the history and celebration of different holidays. This is an exciting project for the Library Student Council to learn about different cultural traditions and customs and mentor primary students.

Burns, Brett

brett.burns@owsley.kyschools.us

District/School: Owsley County, Owsley County High School

Grade Level: 7-12

Project Title: Learning in 3D

Learning Innovation Grant Recipient



This project is a real world, project-based program designed to teach students to model in 3D and measure accurately. Students will apply these skills to solve real word problems and create real world artifacts, which will support our mathematics program by teaching students how and when to use specific mathematical principles. This will project will also allow students to scan real world products, modify them in 3D modeling software, make specialty items, modify hardware for individuals with physical limitations, and repair flawed products. Students will be equipped with precision measurement tools, modeling software, and a 3D scanner for use with the 3D printer that is already in the lab.

Carter, Mary

mary.carter@letcher.kyschools.us

District/School: Letcher County, Letcher Middle School

Grade Level: 6-8

Project Title: “Carter’s Classroom Crib”

Learning Innovation Grant Recipient



The project is focused on creating a learning environment for students that is innovative and addresses 21st Century principles. Content standards and curriculum are frequently revised to provide students with a rigorous pathway that prepares them to be future ready. However, we may be forgetting the impact of the physical learning spaces to optimize student learning. To achieve the goals of improving student engagement, student achievement, and developing critical thinkers, we must recognize the link between classroom space and learning. Scientific research shows that the physical classroom influences student performance. The Twenty-first Century Framework is the foundation of present and future ready education.

If we expect students to reach their highest potential in a classroom, then we must address their physical needs by constructing classrooms with learning spaces that provide the support students need to achieve a 21st Century education.

Cassell, Stephanie

stephanie.cassell@jenkins.kyschools.us

District/School: Jenkins Independent, Jenkins Middle/High School

Grade Level: 9-12

Project Title: Journaling Jenkins! (an online news and literary journal)

Learning Innovation Grant Recipient



Journalism students (and student volunteer contributors) will publish an online news and literary journal to post articles about their own school and local community. The online journal will include book and media reviews, editorials, fiction, poetry and essays. Digital writing will also be enhanced through technology by including formatting features, photographs and video clips. These writing assignments feature “real-world” applications of narrative, informative, and argumentative writing. Students will also develop collaborative and leadership skills as they work together and fulfill individual responsibilities on the journal staff. Additionally, the online journal will serve as an important public relations tool to communicate with parents and the community.

Caudill, Allison

allison.caudill@johnson.kyschools.us

District/School: Johnson County, Johnson County Middle School

Grade Level: 7

Project Title: Picture Our History

Learning Innovation Grant Recipient



A common question that arises in every history classroom is, “What does this have to do with me?” Picture Our History is a way to help students understand their own history and culture and see the influence that other societies have on our own. Students will engage in research through photography in order to understand more about the rich culture and heritage around us in Eastern Kentucky. Students will implement research photography to uncover the connections and personal relevance of people and groups studied in our world history class who have influenced the region. For this project, students will use the Canon Rebel T6i and the camera accessories to help photograph historical sites around our county and region. They will then use photo editing software to create high-quality images suitable for print or digital media. Students will use their photographs to create multimedia presentations that will be shown in the classroom, school and community. Picture Our History will empower students to see the wonder of our communities and the world through the lens of a camera.

Caudill, Jeanne

jeanne.caudill@pike.kyschools.us

District/School: Pike County, Mullins Elementary

Grade Level: Preschool

Project Title: #PreschoolLivesMatter

Preschool Innovation Grant Recipient



We are not satisfied with the number of children who are prepared for Kindergarten. As such, this project is designed to target the Head Start and Preschool-aged children in the school's service region to increase their knowledge of the alphabet and number sense. With the purchase of 4 Little Scholar Tablets, the children will acquire valuable practice by using the tablets. Students from the school's Student Technology Leadership Program (STLP) will be introducing the tablets to the children and coordinating the collection of data from the A+ Report App included in the software

Chandran, Dr. Haridas

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District/School: Pike County, Belfry High School

Grade Level: 9-12

Project Title: (1) Synthesis of Gold/Gold Sulfide Nanoparticles for Photothermal Ablation Therapy

Learning Innovation Grant Recipient



Students will continue the work completed by last year students by enhancing the absorbance peak of the gold/gold sulfide particles obtained from the extract of garlic paste using dialysis technique. They will also try to use tobacco plant extract to synthesize gold/gold sulfide nanoparticles. Tobacco plants will be obtained from the agricultural department and brought back to the science lab at Belfry to process and extract solution that will be used as a capping agent for the synthesis of nanoparticles. They will find the composition of the extract by looking at the atomic spectra and Fourier Transform spectra available at University of Kentucky's ASTEN research center. The information obtained will encourage students to continue their research work on the synthesis of gold/gold sulfide nanoparticles using solutions as capping agents. Students will use equipment available in the science lab to synthesize gold nanoparticles using hydrogen gold aurate along with the prepared extract. The ultra violet spectra of the colloidal solution will be recorded using the Ocean Optic UV-Visible spectrometer available in the science lab. The recorded spectra will confirm qualitatively the production of gold and gold/gold sulfide nanoparticles. Students will use He-Ne laser available in the lab to study the refractive index of the colloidal solution. The colloidal solution will be transported to University of Kentucky or Louisville speed lab to record the images of the nanoparticles using Scanning Tunneling Microscope for precise shape and size of the nanoparticles. Students will use MiePlot4211 program based on Mie Theory to fit the experimental UV-visible spectra. The fitted data will provide the extinction coefficient that can be used to calculate the mass of the nanoparticles and number of nanoparticles present in the colloidal solution. Last year's work demonstrated that it is possible to synthesize gold/gold sulfide nanoparticles using garlic extract from the evidence of broad absorbance peak in the range 750-850 nm and triangular shape SEM images. This year students will modify the synthesis process using a dialysis technique to enhance the absorbance peak in the infrared region; increasing the triangular shape particles that can be used for precise treatment site and perform thermal ablation using infrared lasers.

Project Title: (2) Alternate Energy Source Through Chemical Reaction: Electrolysis

Learning Innovation Grant Recipient

Students will use Hoffman's electrolysis apparatus to understand the fundamental concept of splitting water into H₂ and O₂ gases. They will connect one end of the proton exchange membrane (PMC) fuel cell to run a few electrical appliances (small fan and light bulb). Students will use Brennstoffzelle fuel cell from their lab that produces H₂ gas only by the electrolysis of distilled water--and with the combination of PMC--run the electrical appliances. They will compare their output voltage from these two experimental arrangements. Since the above mentioned experiments produce H₂ gas through electrolysis of distilled water, students will build their own electrolysis apparatus that produces H₂ gas through chemical reactions of chloride salts with distilled water. They will repeat the experiment by varying different parameters, namely, concentration of the chloride salts and cascading PEM fuel cell to increase the output voltage to run high voltage equipment. Students will use vernier probes to measure the temperature and the pH value of the chemical reaction. From the known volume of the H₂ gas, students will determine the pressure by using Boyle's law and concentration of the gas produced. From these parameters, they can determine which reaction is capable of producing the highest voltage that can be used to produce large amounts of electricity. Students will present their data at a conference and publish their findings in a journal to demonstrate that they are looking for alternate energy sources in our region, which depends only on coal seams.

Chandran, Dr. Haridas

haridas.chandran@pike.kyschools.us

District/School: Pike County, Belfry High School

Grade Level: 9-12

Project Title: (3) A Biomassive Innovation: Fueling Life in Appalachia

Learning Innovation Grant Recipient



Students will modify the coal burning chamber constructed by last year's students by including outlets for measuring the amount of CO₂ getting into the tank containing algae. The gas will be measured by using the CO₂ sensor bought from Vernier software and technology. They will also try to build efficient sensors using an Arduino board to measure other gases emitted from the burnt coal. Different types of coal seam will be used to study the yield of the bio-fuel produced from the type of green algae called chlorella. A vacuum pump will be used to evacuate the entire length of the tube so that only the gas from the burnt coal will be pumped into the tank. This will give the experimentalist confirmation of the presence of gas admitted into the tank containing algae. The students will also modify the inlet tube present in the algae tank by connecting it to a flat gas burner tray built by students. This modification will help algae to absorb the CO₂ gas equally in the entire tank. Temperature and pH of the sample in the tank before and after the insertion CO₂ will be measured using the temperature and pH probes available in their science lab. Growth of the algae will be monitored regularly by measuring its volume. The bio-fuel from the algae will be extracted by harvesting the algae collecting them using a cheese cloth. The cheese cloth will be dried using a dehydrator. The dehydrated algae will be combined with hexane and the mixture will be squeezed to extract bio-fuel. The confirmation of the extracted material as a bio-fuel will be determined by measuring its density.

Chapman, Autumn

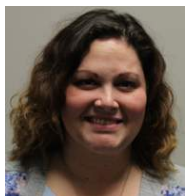
autumn.chapman@pike.kyschools.us

District/School: Pike County, Belfry High School

Grade Level: 9-12

Project Title: The Great Create

Learning Innovation Grant Recipient



The Great Create is an after-school art class offered to all age groups within the community. Each class session will be assigned a different masterpiece thematically painted featuring a local area or an upcoming holiday. Advanced art students will serve as teachers and support staff for all those in attendance. Sessions will be located in the art classroom at the high school and offered through social media.

Collier, Diane Faye

diane.collier@letcher.kyschools.us

District/School: Letcher County, Letcher County Central High School

Grade Level: 11-12

Project Title: Trigonometric Function: What's Your Function??"

Learning Innovation Grant Recipient



This project-based unit places the student in a role as a mathematician. Each pre-calculus student will look for a scheme to represent trigonometric functions in a musical way. Students will use music to help them understand the mathematics of trigonometric functions. Each student team will build a homemade musical instrument and tune the instrument using trigonometric graphs. CBR2 motion detectors will be used to create trigonometric graphs of the sound waves created by the instruments. This data will assist students in the tuning process of their instrument. Each team will create a presentation demonstrating the connection between the instrument they built to its mathematical connections and trigonometric functions.

Combs, Donna

donna.combs@breathitt.kyschools.us

District/School: Breathitt County, Breathitt County High School

Grade Level: 9-12

Project Title: Authors of the Future

Learning Innovation Grant Recipient



Authors of the Future will begin with a variety of students from Breathitt High School continuing their writing/illustrating dream. These students will have the opportunity to write and/or illustrate an anthology of short stories. They will learn, not only the writing process, but also the process that it takes to get a book published. They will learn the correct procedure for ordering the ISBN number, as well as how to apply for a control number from the Library of Congress. This grant will open the doors for a career, not only for the writers of the future but also the illustrators of the future.

Cooley, Laura

laura.cooley@pikeville.kyschools.us

District/School: Pikeville Independent, Pikeville High School

Grade Level: 9-12

Project Title: How a Civics Club Can Cultivate a Civic Life

Learning Innovation Grant Recipient



It is imperative that students become competent global citizens. Many life skills cannot be learned in the classroom. The Kentucky Standards for Social Studies is predicated on the C3 Framework—College, Career, and Civic Life. Civic Life can be the most challenging precept of this framework. The formation of a Civics Club will serve as the vehicle to create opportunities that will allow students to learn how they can become engaged in civic life through state-level government simulations, competitions and community service activities.

Cornett, Sherri

sherri.cornett@hazard.kyschools.us

District/School: Hazard Independent, Roy G Eversole Elementary

Grade Level: K-4

Project Title: Engaging students through Creative Technology

Learning Innovation Grant Recipient



Students enjoy the computer lab, but often believe computers are only for games. This project is designed to help students delve into a deeper understanding of technology and its many applications. In a project-based learning environment, students will interact with each other and the community to create videos and digital storytelling projects that inform their audience on a variety of topics, such as the History of Hazard, school and cafeteria rules and procedures, and an introduction to kindergarten. Through this project, students will learn keyboarding, coding and editing.

Crase, Christina

christina.crase@floyd.kyschools.us

District/School: Floyd County, Betsy Layne High School

Grade Level: 12

Project Title: All Access-Flipped Classroom

Learning Innovation Grant Recipient



The purpose of the “All Access Flipped Classroom” is to alleviate student anxiety in mathematics by developing and implementing a library of flipped videos. To produce this library, students will use a swivl camera and iPad to record videos to create flipped lectures, student collaboration, question reviews, snow day lectures and snow day assignments. The unlimited availability of these videos will allow students to watch, work and review content asynchronously.

Doderer, Hans

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District/School: Paintsville Independent, Paintsville Middle/High School

Grade Level: 8-12

Project Title: Raising and Releasing Trout in Eastern KY: A freshwater home

Learning Innovation Grant Recipient



Students will raise trout from egg to fry in the classroom in order to develop their understanding of the life cycle of vertebrates in a freshwater ecosystem and water quality, and simultaneously learn about threatened species in local watersheds. Throughout this project, students will work with the KY Department of Fish and Wildlife, Bluegrass Trout in the Classroom and environmental educators.

Donour, Regina

regina.donour@letcher.kyschools.us

District/School: Letcher County, Letcher County High School

Grade Level: 9

Project Title: Initiate and Inspire Better Thinkers and Problem Solvers through Technology

Learning Innovation Grant Recipient



The objective is to work with academically at-risk 9th grade students. Through a project-based learning experience, students will use Cubelets to build and program robots that will initiate and inspire a love for learning and build student confidence so they can thrive in a technologically advancing world.

Fannin, Starla

starla.fannin@hazard.kyschools.us

District/School: Hazard Independent, Roy G. Eversole Elementary

Grade Level: Kindergarten

Project Title: LEAP into Kindergarten

Learning Innovation Grant Recipient



This project is a program that I developed based on a “learning through motion” educational gaming tool, which provides kindergarten students with the opportunity to get their young minds and bodies thinking and moving. LeapTV is a gaming program that addresses the multiple disciplines in kindergarten, and provides learning techniques that will individualize learning through sight, sound and touch. A learning center will be created out of this tool, which will provide access to all students in the classroom. This game system allows kids to jump and dance as they learn core skills across reading, math, science and problem solving. The camera catches kids exploring, and the program offers skills, such as learning sounds, word building, blending, reading, math, decomposing numbers and much more, including the integration of Spanish and language. This program also provides an Individualized Learning Option, which develops and assesses students through computer-generated data as they master the skills while playing LeapTV.

Flannery, Cortney

cortney.flannery@floyd.kyschools.us

District/School: Floyd County, Betsy Layne High School

Grade Level: 12

Project Title: Discovering DNA and Genetics Using Action Research

Learning Innovation Grant Recipient



During the first 4 days of this exploration, students will use a book entitled *Abraham Lincoln's DNA and Other Adventures in Genetics*. The book uses real life stories to approach information regarding recent developments and bioethical issues common to the study of genetics. Topics for the student groups will include a history of DNA, using DNA in the court system, human behavior, genetic engineering, diseases and medicine and genetic technologies. Student work will then transition into a five day STEM lab-based study. Once the lab research is complete, students will have 2 days to prepare a presentation based on the elements of their literary research and lab findings. The students' work will be presented to the public at the school's academic showcase.

Frazier, Rachel

rachel.frazier@knott.kyschools.us

District/School: Knott County, Jones Fork Elementary

Grade Level: 4/5

Project Title: There's an App for that!

Learning Innovation Grant Recipient



As a first year teacher coming home to the mountains to teach was a privilege. I had not been inside an Eastern Kentucky elementary school since being a student; things had definitely changed. Going from every piece of technology I could imagine at my fingertips--to a classroom with nothing but a projector and ELMO--was somewhat of a wakeup call. The school offers many technology advances. While there are computers, clickers, and a Mondopad for my use, they are all shared devices. I have made it my goal to get technology in the hands of my students. By acquiring a classroom set of iPads for my classroom, I will be able to integrate technology into instruction on a daily basis. Students will be using technology in my classroom for math, social studies and Program Review. Classroom iPads will be a great addition for small group instruction and individualized learning.

Fyffe, Karen S

karen.fyffe@johnson.kyschools.us

District/School: Johnson County, Highland Elementary

Grade Level: 5

Project Title: Putting Science into the Hands of Students!

Learning Innovation Grant Recipient



Effective science instruction for 5th grade students at my school is currently impeded by time constraints. As a result, science instruction often consists of boring packets and countless worksheets. Educational research clearly indicates that science should be taught interactively, and students should be active participants. Science is not meant to be experienced with two-dimensional diagrams from textbooks and worksheets, but with hands-on experiences in a three-dimensional world. Since I teach math, my plan is to integrate math, science, and technology into hands-on, real-world projects. Also, I plan to collaborate with the District Technology Integration Specialist to assist with *icurio* research and digital folder creation. Initially, projects will consist of foundational scientific processes to allow students to "get their hands on" basic tools and familiarize them with terminology used by scientists. As the school year progresses, the goal is to incorporate STEM project-based learning activities where students conduct their own research and design their own projects.

Gabbard, Clara

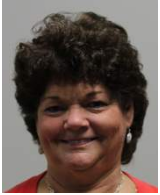
clara.gabbard@breathitt.kyschools.us

District/School: Breathitt County, LBJ Elementary

Grade Level: Preschool

Project Title: iPads Minis for Minis

Preschool Innovation Grant Recipient



iPad minis are great for small hands. We will use our iPad minis to meet preschool objectives for development and learning. Students will learn fine motor strength and coordination using the devices. We will also utilize apps as a useful tool in helping with phonological awareness, systematic phonics, vocabulary, fluency and comprehension. Using these iPads in our classroom will open students up to the 21st Century learning. Students will be engaged in all subject areas thru the different apps made available to them.

Gabbard, Eugena

eugena.gabbard@owsley.kyschools.us

District/School: Owsley County, Owsley County High School

Grade Level: 7

Project Title: STEM Initiative –Project Based Robotics

Learning Innovation Grant Recipient



This project will offer 7th graders a mathematical, tech/robotics class. Students will be exposed to a hands-on approach to learning mathematics, specifically: ratios, proportions and geometry topics including angles, geometric shapes, and spatial reasoning with modeling 2 and 3D visuals. Science and writing techniques will also be utilized. The main topics will involve students creating and producing a variety of robots--both solar and remote control--along with designing and constructing an obstacle course for their robots final performance event. This project will be an ongoing experience that allows students exposure to a variety of technological advancements not normally utilized, such as 3-D printing, robot building and basic programming. Resources for this course will include community and secondary educational members as presenters for robot design; STEM Robots that address creativity, logic and scientific learning, as well as how technology is used and how it constantly changes the world around us.

Gilbert, Greta

greta.gilbert@floyd.kyschools.us

District/School: Floyd County, Prestonsburg High School

Grade Level: 9-12

Project Title: Learning through Performance; Interactive Music and Dance Instruction by High School Students for Elementary Students

Learning Innovation Grant Recipient



Prestonsburg High School Choir students will complete a service learning project with Prestonsburg Elementary School. The high school students will teach elementary students a unit on music using Mondopad provided at each site. The high school students will use creative methods to teach concepts in the performing arts to deepen their own understanding of the concepts, as well as share that knowledge with younger students. As a capstone event, the high school choir will use the portable sound system purchased with grant funds to do a live performance at the elementary school and at area nursing homes.

Green, Angela

angela.green@mboro.kyschools.us

District/School: Middlesboro Independent, Middlesboro Elementary School

Grade Level: 4

Project Title: Extra! Extra! Read All About It

Learning Innovation Grant Recipient



For many years the 4th grade staff has published a monthly newsletter as one form of communication with parents. Often, these newsletters did not even make it home. We would find them in the trash can or scattered on the floor. This project gives ownership of the monthly newsletter to the students by allowing them to write and publish the newsletter themselves. By using iPads and putting students in charge, the newsletter will become more meaningful. The students will take pictures, conduct interviews and become reporters. There will be greater interest in the newsletter, which will enhance communication between the school and parents.

Hackworth, Patricia

patricia.hackworth@floyd.kyschools.us

District/School: Floyd County, Betsy Layne High School

Grade Level: 12

Project Title: Memories...Building a Positive Self Image through Writing

Learning Innovation Grant Recipient



This grant will help students who did not meet their ACT benchmark in Reading and/or Writing. Writers/Readers become proficient through PRACTICE. My students need to be immersed in the written word. This class will create a memory book using interviews and memories from families and friends--personal essays/poetry/short stories. After writing, the class will peer edit and help each other revise. By using other Appalachian authors, the students will read about the beauty of the area and will even use photography to show the beauty in our region. Many times, our geographical area is stereotyped in a negative manner, so one of the vital parts of the grant will be to help our students see the beauty and the privilege of being able to say, "I am from Appalachia. I am an Eastern Kentuckian."

Hager, Dona

dona.hager@pike.kyschools.us

District/ School: Pike County, Southside Elementary

Grade Level: Preschool

Project Title: Watch Me, Watch Me Count; Watch Me Recognize My Numbers, Watch Me Problem Solve and Reason, Watch Me Measure

Preschool Innovation Grant Recipient



Students will show measurable growth in the areas of counting and number recognition through the use of an iPad and age-appropriate apps in whole and small group instruction. Students will use acquired skills to create a "machine" to move items from one place to another (their version of a crane). Students will use reasoning measurement and problem-solving as they work together on their fun math project.

Hall, Fannie

fannie.hall@breathitt.kyschools.us

District/School: Breathitt County, Marie Roberts-Caney Elementary

Grade Level: Kindergarten

Project Title: Building Success with Brick Lab

Learning Innovation Grant Recipient



The ARI mini-grant will be used to purchase a Brick Lab Kindergarten Afterschool Kit with the addition of a 1st grade curriculum. The curriculum is engaging, rigorous and stimulating. There are 12 units in each grade's curriculum, which allot between 40-60 minutes for building models, investigating topics, and hands-on learning of vocabulary. The "turnkey implementation" of the Brick Lab covers Math, Physics, Communication and Engineering, as well as a wide variety of Science, Social Studies, and even ELA.

Hall, Janice

janice.hall@breathitt.kyschools.us

District/School: Breathitt County, LBJ Elementary

Grade Level: 3-6

Project Title: Digital Artists

Learning Innovation Grant Recipient



Students will take pictures in manual or maybe automatic mode before they are taught how to use the aperture, ISO and shutter. They will also take a picture of the same object after they have learned how to use the manual mode. We will compare before and after photographs. Also, students can research photography jobs and classes. Through their research, students will be introduced to different types of photography that will expand their knowledge of digital photography art.

Hall, Jason

jason.hall@owsley.kyschools.us

District/School: Owsley County, Owsley County Elementary

Grade Level: 6

Project Title: Mouthing About Math

Learning Innovation Grant Recipient



In order to deepen students' level of understanding, teachers of mathematics should encourage the use of rich forms of discourse, such as explaining one's reasoning and comparing multiple problem-solving strategies. The National Council of Teachers of Mathematics has also called for greater efforts on the part of teachers to integrate explicit mathematical processes like reflection, reasoning and explanation into daily classroom instruction. My goal will be to promote students' reflection, reasoning and explanation of math practices in order to help deepen their level of understanding. In order to provide models of rich forms of discourse and monitor students' practice of reflecting, reasoning and explaining their math practices, I will use the resources through this grant--combined with classroom discretionary funds provided by my school--to purchase a Canon VIXIA HF G30 Full HD Camcorder. I will use Success for All Power Teaching Math strategies to guide students' discussions when solving math problems in collaborative groups. The SFA/PTM rubric for responses includes points for providing the correct answer, the correct process and explaining which of the 8 mathematical processes the group used to solve the problem. As students work within their groups--they will not only use standard algorithms--but also alternative methods to solve problems. As they share their processes with their group members, they will also explain why they used a particular method and defend why it is correct or change it if necessary. We will use the camcorder to video student conversations as they develop a response to a math situation to serve as models. We will also use the camcorder to video "Random Reporters" who share the groups' agreed upon responses. Videos will be uploaded weekly through the class YouTube channel to provide access for student use as examples of good discourse. Examples will also be upload to the Holler. Hopefully other educators will use the videos as models for student discourse about math.

Hall, Jatanna

jatanna.hall@pikeville.kyschools.us

District/School: Pikeville Independent, Pikeville Elementary

Grade Level: 6

Project Title: 6th Grade Living Wax Museum

Learning Innovation Grant Recipient



Students will participate in a living wax museum. The museum will be the culmination of a month-long research project about various historical figures, inventors and athletes that have impacted our world in a significant way. Various ELA standards will be incorporated into the project as students gather information; write original poetry; write and recite a speech from the perspective of the person they have selected; and create a display board and name plate and paint a background scene related to the individual they have researched.

Hall, Jeremy

jeremy.hall@breathitt.kyschools.us

District/School: Breathitt County, LBJ Elementary

Grade Level: 5

Project Title: Integrating Pro Bots and Programming in Fifth Grade

Learning Innovation Grant Recipient



Fifth grade students will program Pro Bots using the one-to-one devices the school has purchased with the grant. These Pro Bots will introduce problem-solving and reinforce technology, sequencing and mathematical concepts. Pro Bots offer students a hand-on experience with Logo programming, as well as robotic controls. Students will be actively involved in programming commands to the Pro Bots to move, draw, or solve concepts.

Hall, Melissa

melissa.hall@breathitt.kyschools.us

District/School: Breathitt County, Highland Turner Elementary

Grade Level: K-2

Project Title: Special Education and Project-Based Learning: Monthly Kits to Explore and Inspire

Learning Innovation Grant Recipient



Primary students with learning disabilities can have a creative and efficient opportunity to explore project-based learning within the resource classroom. The Kiwi Crate--a self-contained resource consisting of assorted monthly themed materials--will provide learners with an organized occasion to explore various topics as projects. These crates are designed to capture the interest and creativity within the students' developmental range. A new theme with all the materials and inspiration for kids to build, make and develop their creative confidence will be delivered and utilized on a regular basis. Evidence of students' learning will be clear since students will produce a project to demonstrate the specific aligned subject.

Hall, Pamela

pamela.hall@knott.kyschools.us

District/School: Knott County, Emmalena Elementary

Grade Level: 2

Project Title: Enhancing Centers with Geo Safari Laptops

Learning Innovation Grant Recipient



The use of GeoSafari Jr. and GeoSafari for ages 8 and up during math learning centers will improve students' performance in math, particularly in the area of numbers and operation. My students, as a class, have scored low on the MAP and STAR math tests in the areas of numbers and operations. A pre-test will be given at the beginning of the week over a particular number and operations skill. During math centers each day, students will be divided up by ability in to 3 groups (based on MAP and STAR performance). One group will be on the computers, the second group will be doing a hands-on activity and the third group will be using the GeoSafari. The GeoSafari version students use will depend on their ability level. All three groups will be

working on a skill dealing with numbers and operations. At the end of the week, a post-test will be administered over that same skill to measure student progress.

Halsey, Angie

angie.halsey@wolfe.kyschools.us

District/School: Wolfe County, Wolfe County Middle School

Grade Level: 3rd & 4th

Project Title: Mary, Mary, Quite Contrary- How Does Your Garden Grow?

Learning Innovation Grant Recipient



Students will participate in helping to create and design a unique outdoor classroom-learning environment. Through the use of a greenhouse and compost bins, they will learn about recycling and making healthy food choices, while also gaining knowledge in growing their own vegetables and flowers. Students will also be able to compare how worms--nature's best decomposer--helps assist in this process decomposing food and trash naturally. With additional funding and help from the community, we will further develop this outdoor classroom into a place where all of our students and staff can get their hands dirty by creating outdoor art and further extend learning opportunities in to the great outdoors.

Haynes, Ashley

ashley.haynes@hazard.kyschools.us

District/School: Hazard Independent, Hazard Middle School

Grade Level: 6

Project Title: Blended Learning 6th Grade Mathematics

Learning Innovation Grant Recipient



The goal of the Blended Learning in 6th Grade Mathematics Project in my classroom is to help two groups of Math Plus (R.T.I.) students develop a deeper understanding of the Common Core Standards by engaging them using multiple types of formative assessments that are technology-based, such as Socrative, Kahoot, Zaption, Chatzy, Discovery Education, and IXL Math. The research question I am seeking to address is whether student mastery of operations with fractions will be obtained by implementing the aforementioned online instructional tools, which will provide individualization of student learning through technology. At the start, mid- and end-points of the Blended Learning in 6th Grade Mathematics Project, Discovery

Education Benchmark Assessments will be conducted to determine increases in mathematical achievement with relation to operations with fractions. In addition, IXL and other teacher-created formative assessments will be utilized to determine student mastery of the Common Core Standard (6.NS.A.1).

Holbrook, Ed.D, Rachel

rachel.holbrook@johnson.kyschools.us

District/School: Johnson County, Johnson Central County High School

Grade Level: 7

Project Title: SMART Brainstorming

Learning Innovation Grant Recipient



As a language arts teacher it is often difficult to design engaging opportunities for my students to be a part of when responding to text-based questions. In order to achieve this feat and increase my students' comprehension and written expression skills, I plan to create multiple opportunities for students to acquire various brainstorming strategies in a digitally interactive way using a SMART Kapp board. (A SMART Kapp board is a technology driven dry erase board that lets users write and draw on its surface while instantly capturing and sharing work with Wi-Fi connected devices in real time.) Students will utilize my Chromebook lab to wirelessly connect to the SMART Kapp board that I will purchase. Once they are connected, all information that is written on the board will appear on their Chromebook screens. (Students will also have the opportunity to connect other smart devices such as phones, ipads, and tablets as well.) Together my students and I will write on the SMART Kapp board as well as manipulate the content placed on the board using the connected Chromebooks and other smart devices. I also plan to purchase the premium app for controlling the SMART Kapp board that will allow me to utilize additional features with my students. By the end of this action research study, I expect that my students will learn to routinely use specific brainstorming strategies prior to completing extended responses that are text-based.

Howard, Amy

amy.howard@floyd.kyschools.us

District/School: Floyd County, Prestonsburg High School

Grade Level: 10

Project Title: It's the Little Thing that Make a Big Difference

Learning Innovation Grant Recipient



The project will support a more hands-on approach for the biology student. It is designed to introduce students to modern research techniques in the areas of cellular biology and genetics. Because students are curious by nature, they see the CSI technology on technology and want to do these experiments. The students remember and understand more by "doing" rather than "memorizing". If they have to apply the information, they understand it better. It has always been said, you never really know something until you have to explain it. Therefore, students will will obtain knowledge in different research techniques in cellular biology and genetic testing. Students will be provided various laboratory equipment to effectively engage in scientific research based on real world scenarios.

Howard, Tara

tara.howard@magoffin.kyschools.us

District/School: Magoffin County, Salyersville Grade School

Grade Level: 5/6

Project Title: Student Apprentice

Learning Innovation Grant Recipient



As education progresses and moves away from a model focused on rote memorization and passive learning, students in our rural area need to be exposed to activities that cause them to think critically. The 21st Century workforce will require students to be innovative thinkers who are also savvy with technology. As a classroom teacher, I have been searching for ways to incorporate Project-based learning into my classroom. As an ARI Innovative Teacher Leader, I have seen the level of engagement rise with the use of classroom technology provided through ARI funding. Through the implementation of Common Core Mathematical Standards, students will participate in a Project-based learning, entrepreneurial leadership activity which utilizes 21st century skills. My plan of action is to incorporate these areas of focus in the classroom by purchasing a 3D printer. Students will work in groups to create products that they believe will be beneficial to their target audience. Students will be introduced to the project and activate prior knowledge by watching video clips from popular television programs related to the project (The Apprentice, Shark Tank). Each group will be responsible for coming up with a product idea that they believe will be profitable. The group will create, conduct and analyze surveys during the research phase. Students will sketch their product idea, including dimensions and establish a price per unit. They will present their idea to a panel of teachers for approval prior to using the 3D printer. Students will learn through trial-and-error and determine if changes needed during the testing phase. Upon product creation, students will be responsible for marketing through print ads, commercials and infomercials. Rubrics will be created as a tool for students to follow during this phase (elements of art and principles of design standards will be addressed). All student work will be judged at an awards ceremony.

Hunt, Nikki

nikki.hunt@pike.kyschools.us

District/School: Pike County, Southside Elementary

Grade Level: 2

Project Title: To Bee or Not to Bee? Our Honey Bee Dilemma

Learning Innovation Grant Recipient



The decline in the honey bee population is becoming a growing concern due to the negative impact on food production. Scientists are still trying to determine the exact cause for their decline. We, as a second grade class, are planning to research possible causes for this decline. We will then investigate, design, and create, possible solutions to help our honey bee populations in our communities.

Jones, Grethel

grethel.jones@jacksonind.@kyschools.us

District/School: Jackson Independent, Jackson Independent Elementary School

Grade Level: Preschool

Project Title: Preschool Wonder Garden

Preschool Innovation Grant Recipient



Our preschool class will be planning, designing and growing the garden throughout the school year. The students will be measuring rain fall and soil temperatures and planning which plants will grow during each season. They will also be doing experiments with plants in the classroom and taking a trip to the Children's Garden.

Justice, Gerald Mitchell

mitch.justice@pike.kyschools.us

District/School: Pike County, Belfry High School

Grade Level: 9-12

Project Title: Recording History: A Collaborative Project between Belfry High School’s Kentucky Studies Classroom and The Stone Heritage Museum

Learning Innovation Grant Recipient



This is a collaborative project between Belfry High School’s Kentucky Studies classroom and The Stone Heritage Museum. The objective will be to find ways to encourage students become active participants in the community, state and nation, promoting positive student citizenship. This grant will provide the Kentucky Studies students with adequate technology so that they can work with members of the Stone Heritage Museum to record stories from the people who helped shape our community’s history. Students will have to work with members of the Stone Heritage Museum to determine the scope of work, such as video-taping interviews with community members, creating historical videos of the community, collecting historical photographs, creating promotional videos for the museum or writing and creating documentaries. The data will be permanently housed in the Stone Heritage Museum. Students will also work to enhance a website created for the Stone Heritage Museum by last year’s Kentucky Studies students. This will allow people who cannot physically visit the museum to enjoy the work students create and to help promote and enhance the Stone Heritage Museum.

Keens, Misty

misty.keens@knott.kyschools.us

District/School: Knott County, Jones Fork Elementary

Grade Level: 4/5

Project Title: Science for OUR Generation

Learning Innovation Grant Recipient



The proposed projects require a great deal of materials. The resources provided for these hands-on projects will ensure that 40 students in the 4th and 5th grade will be actively engaged in Next Generation Science. Among the activities, students will utilize engineering and technology to build toy cars, build and test different materials, design flying machines, take a motorized car apart and learn engineering in reverse, gardening to observe tropism, build and test structures against natural events, and create solar ovens to observing the sun’s power first hand.

Kinkaid, Sarah

sarah.kinkaid@pike.kyschools.us

District/School: Pike County, Belfry High School

Grade Level: 9-12

Project Title: From Greenhouse to Garden: Pirate Planters to Work

Learning Innovation Grant Recipient



The Pirate Planters are gearing up for Round 2 with ARI this year. We are expanding on what we started last year by adding low tunnels. Our goal is to have crops growing all winter. Our students will learn how to plant and cultivate vegetables and herbs. We hope to donate our surplus to the Tug Valley Recovery Shelter to help feed their guests. We look forward to learning agricultural skills that can be used by our students for years to come.

Kinner, Jason

jason.kinner@paintsville.kyschools.us

District/School: Paintsville Independent, Paintsville High School

Grade Level: 10-12

Project Title: On the Job Training

Learning Innovation Grant Recipient



Technology is constantly changing and improving. With those changes and improvements come additional costs for new equipment. Drone cameras are cutting edge tech, and we want to expose our students to the future. Students will use the drones to record innovative footage to use in various projects. The drone cameras will work nicely with our iMac lab and the traditional still and video cameras we already use in Media Class.

Kinner, Dawn

dawn.kinner@paintsville.kyschools.us

District/School: Paintsville Independent, Paintsville High School

Grade Level: 10-12

Project Title: On The Job Training

Learning Innovation Grant Recipient



What we would like to do this year is have our students interested in journalism and photography to take pictures of school activities and events and submit them for publication in our local papers, The Paintsville Herald, The Big Sandy News and allaroundpaintsville.com. These media outlets are very interested in allowing our students to partner with them to tell our school's story. This will give our students real world experience in the newspaper and media career path. They will be forced to produce high quality work and meet strict deadlines.

Kuhnen, Anne

anne.kuhnen@hazard.kyschools.us

District/School: Hazard Independent, Hazard High School

Grade Level: 9-12

Project Title: A Geometric Garden

Learning Innovation Grant Recipient



In an effort to connect math to real world applications, students in geometry classes at Hazard High School will design and construct raised garden beds. The project will give students the chance to reinforce topics they are learning in the classroom such as similarity, area, perimeter, and volume while building something that benefits the school.

Leckie, Carolyn

carolyn.leckie@paintsville.kyschools.us

District/School: Paintsville Independent, Paintsville Elementary

Grade Level: 6

Project Title: Differentiating Instruction in 6th grade Math

Learning Innovation Grant Recipient



The best way to teach math is to have students working at their own level while participating in lessons with others. For the 2015-16 school year, my classroom will be using a new class set of Chrome Books. This will greatly facilitate my goal of differentiating instruction so that each student can work on his/her appropriate level. We will utilize our existing programs (IXL, Study Island, Digits and Moby MAX). Now we can add math games and instruction from the wealth of links I have found on incurio.com. By adding math games to reinforce students' skills, students will overcome their dread of math and realize that math can be fun. In groups, students will work on lessons from WinMath that introduce them to math used in real-life jobs. Fortunately, I will be able to design individualized assignments for various students who are advanced, on-level or lower level. This type of teaching sounds thrilling. Google Classroom will help immensely with notifying students of different assignments and with keeping track of their progress. However, a teacher monitoring system is needed to facilitate everyone working on their own level. This system will allow the teacher the ability to monitor student's work and to allow for differentiation to meet the needs of each student. Students will be evaluated through pre/post-tests and will be required to keep records of their individual progress.

Lewis, Elisha Ann

elisha.lewis@knott.kyschools.us

District/School: Knott County, Beaver Creek Elementary

Grade Level: 2/3

Project Title: 21st Century Classroom for a 21st Century World

Learning Innovation Grant Recipient



Each year literacy/writing and math centers play a huge role in my curriculum, however this year I plan to incorporate an aspect of "The Daily 5." Daily center activities allow student choice while others receive RfI instruction. One of the daily rotations is technology, where students share 3 computers. The mini iPads will be a great addition to our classroom to help promote student exploration with high tech learning materials. Students will get opportunities to work with various apps to help promote literacy and beginning math skills. For example, the Literacy/Writing app Mental Note, will be used to record students reading their own writing. Students will then playback and listen to their stories for editing purposes. Teachers will use these recordings with students to provide feedback. Students will use iBooks Author to publish their final writing work after having used Pages to work through the editing process. Reading Comprehension from Peekaboo Studies was designed for the classroom looking, which provides an advantage in solidifying students' reading and comprehension skills. Students can receive an email about their test results to share their progress. Fluency Timer is another app with an adjustable timer that automatically records students' fluency readings for playback and sharing. It is simple enough for students to use independently. A web-based subscription of IXL math can easily be accessed by students at their seats for review and remediation of concepts. JogNog allows students to study and take tests in a fun and fast way, all of which are aligned to Common Core Standards. First step safari will transform math by combining comprehensive learning with high quality entertainment and fun. Integrating technology using the iPad minis with Common Core State Standards corresponding apps will prepare students for the challenging jobs of the future. The use of iPads in the classroom is aimed at providing students with the tools and skills they need to be successful in a 21st Century world.

Lewis, Kristy

kristy.lewis@mboro.kyschools.us

District/School: Middlesboro Independent, Middlesboro Elementary

Grade Level: 4

Project Title: Telling the Tale

Learning Innovation Grant Recipient



This project will allow students to practice the art of storytelling while acquiring practice in public speaking and writing through technology. Storytelling is a part of Appalachian culture that is truly becoming a lost art. Students will practice telling their stories out loud, but also alone using a mini iPad recorder. Students will be able to gain confidence while listening to their own recordings. They will be able to copy their stories in prose form, which will allow their writing to have clear voice within their pieces. Finally, students will be able to share their stories with classmates, which will encourage listening, writing, publishing and public speaking skills.

Lovely, Melissa

melissa.lovely@magoffin.kyschools.us

District/School: Magoffin County, Magoffin County High School

Grade Level: 10

Project Title: How do we feed the world?

Learning Innovation Grant Recipient



After reading informational texts, researching, and using information from participation in designed experiences, I will be asking students to create a presentation in which they identify a problem related to farming practices and feeding 9 billion people by 2050 and propose a solution. Students will propose their solutions through a business plan they will present to “investors”. Students will be introduced to a variety of creative approaches to developing effective solutions including vertical farming, stem cell meat, fish farming, developing perennial crops, rooftop farming, adjusting the food culture, nutrigenomics, and aquaponics. At the end of the student business plan presentations, we will select aquaponics as the solution we can implement now. Students will be given the task of engineering a blueprint for an aquaponics system. After the initial research and blueprints have been finished, we will as a class work together and build a functioning and producing aquaponics system. After the aquaponics system has produced its first yield, students will collect data on percent yield vs. cost. With the information the students have gained through this project, they will create a final business model and presentation. My project outcome will be evaluated by Functionality of the Aquaponics system and business model for that system created by the students. Timeline for the completion of the project will be the 2015-2016 school year.

Martin, Amy

amy.martin@mboro.kyschools.us

District/School: Middlesboro Independent, Middlesboro Middle School

Grade Level: 6-8

Project Title: Developing Future Engineers-Science Olympiad

Learning Innovation Grant Recipient



As middle school educators, we have noticed a decline of interest in science-based careers. Since our state has implemented the Next Generation Science Standards with 21st century skills, we hope to improve our Science Olympiad Team. We want to attract more students to professional and technical careers in science. This grant will help provide the team kits that cultivate teamwork and cooperative learning strategies as the members compete in the tournaments with their projects.

Martin, Coley

coley.martin@floyd.kyschools.us

District/School: Floyd County, Allen Central Middle School

Grade Level: 7

Project Title: Don't Let the Heat Escape

Learning Innovation Grant Recipient



This investigation deals with the loss of thermal heat throughout a home. Students will be asked why the heat in our homes must constantly be “kicking” on. Through discussion and formal assessment, students will be able to explain that temperature is always trying to be at equilibrium, and it is a constant back-and-forth in any system for particles to reach a stable state, although that usually does not occur. Conservation of energy--as well as the transfer and transformation of energy--will be big topics within this learning cycle. Students will investigate various properties about objects, the ability to withhold heat while other objects heat or cool very quickly. After activities investigating particle movement, water and temperature, students will use materials to investigate how one could keep the transfer of thermal energy to the outside of the home. Students will build a model of a house and use a light source as the heat. Students will measure the temperature inside and outside the house at specific locations. Students will use technology to collect data using wireless probes along with iphones, android phones, iPads.

Martin, Tamara

tamara.martin@knott.kyschools.us

District/ School: Knott County, Emmalena Elementary

Grade Level: Preschool

Project Title: Mini I-Pads for Mini Hands

Preschool Innovation Grant Recipient



Why are numbers so important? How does knowing numbers affect my life? These are some questions my preschoolers will explore. When asking them how old they are, they typically will say “3 or 4,” I explain to them that it is a number. When working with the calendar daily, we will learn how numbers determine which day it is on a given day. There are limitless examples of how numbers impact their lives. This project will utilize technology tools (iPads) to assist students with number identification and the daily significance in our world.

Maynard, Sammy J.

sammy.maynard@pike.kyschools.us

District/School: Pike County, Southside Elementary

Grade Level: 5

Project Title: Fact or Fiction: Evaluating Scientific Claims in the Social Media Age

Learning Innovation Grant Recipient



In the age of highly accessible technology, information is merely a point and click away. As educators, the paradigm of teaching knowledge-level facts has become obsolete. It has been replaced by the overwhelming need to equip students with the scientific literacy skills to evaluate the steady stream of information that inundates our society. Therefore, I assert that the inclusion of authentic inquiry-based science lessons will optimize students' levels of science literacy, directly influencing their abilities to systematically evaluate scientific claims in social media. This is the driving force behind Fact or Fiction: Evaluating Scientific Claims in the Social Media Age.

McCoy, Christy L.

christy.mccoy@pike.kyschools.us

District/School: Pike County, Southside Elementary

Grade Level: 3

Project Title: Econ and Me: Teaching Children the “FUN”amentals about Money in the Real World

Learning Innovation Grant Recipient



The students in my 3rd Grade ELA Classroom--through the use of Social Studies in Informational Reading--will become Young Entrepreneurs as they Develop their own Business and Marketing Strategies to sell a product or service that they create. Students only grasp information concretely when given real-world scenarios. This innovative, STEM and project-based learning activity will take students on a Real World Learning EDventure from the physical classroom to virtual classroom and on to the local community. Through application, students will learn the meaning of intensive Economic vocabulary. As students develop their business plans, they have to design a sign or logo with a quirky business name using Alliteration. They also have to create a catch phrase or jingle to go with their business, and then as they determine start-up cost, students have to decide upon the price of the item in order to make a profit. When all students have completed their projects, we will take them to our Community Market Day Event (Town Festival) where they earn "real money" to give back to their school. In one day, we earned around \$800.00. Kids earning money--WOW!!

McCune, Cathy

cathy.mccune@breathitt.kyschools.us

District/School: Breathitt County, Sebastian Middle School

Grade Level: 6

Project Title: 3Doodler in Science

Learning Innovation Grant Recipient



I want to incorporate more 3D construction into my classroom. By creating objects beyond the computer screen, students are automatically more engaged. In my innovation grant, I asked for a tool that will allow students this cool opportunity. The CreoPop 3D pens will allow students to create 3 dimensional models. Using the 3 Doodler in my class, students can create prototypes, draw 3 dimensional models of cells, molecules, viruses, organs and other critical biological artifacts. Using dimension will make it easier for students to understand complex concepts. It provides greater focus for the visual learners and places student-created products into their hands for inspection and analysis.

McIntosh, Ella

ella.mcintosh@breathitt.kyschools.us

District/School: Breathitt County, LBJ Elementary

Grade Level: Preschool

Project Title: iPod Squad

Preschool Innovation Grant Recipient



IPads will be used by my students as they rotate through centers. Students will actively engage with the applications such as ABC Moose, Starfall, Play Kids, Preschool and Kindergarten learning games for kids, children's books, and others as they are discovered. Keeping new and updated resources at our children's fingertips will be optimal and help with the development of their fine motor skills, including muscular development in the hands and hand-eye coordination.

McIntosh, Karen

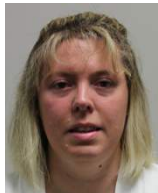
karen.mcintosh@breathitt.kyschools.us

District/School: Breathitt County, Highland Turner Elementary

Grade Level: 2-3

Project Title: Bee Bots Learning in the Primary Classroom

Learning Innovation Grant Recipient



This grant is based around project-based learning and hands-on learning. I want students to learn to use more problem-solving skills and do more hands-on activities. With this mini-grant, we will purchase bee bots for grades K-2. However, the bee bots can be used at any grade level. Students can program these bots and have them move around various mats. The mats and bots can be incorporated into many different curriculum areas. With math, if students are learning about money, they can program the bee bots to maneuver around the mats to collect the right amount of money. In language arts, if students are learning certain sight words, the students can program the bots to get to the sight word the teacher calls out. There are so many ways to

use these bee bots, and students today are learning more by doing hands-on, problem-based learning that includes the 21st Century learning skills. The school goal is to increase student learning so that all students can reach proficiency.

McKinney, Kayla

Kayla.mckinney@floyd.kyschools.us

District/School: Floyd County, Allen Central High School

Grade Level: 9-12

Project Title: Digital Crisis Averted: Classroom Management Systems for Digital Conversion

Learning Innovation Grant Recipient



Last year Floyd County began the digital conversion for grades 5 and 9. As a 9th grade English teacher, I was part of this first digital conversion group. After a year of both struggles and successes with digital conversion, I decided this year I would make an effort to fix some of the problems we experienced last year. The ARI mini-grant will provide a program called Netop Vision Pro. This program gives a teacher the capability to see every laptop screen in the classroom. The teacher can live stream any program, video or activity directly from their laptop screen to the students' screens. The teacher can also manage classroom behavior by turning screens off and controlling what students are doing on their laptops at any given time.

This program will revolutionize my classroom by allowing me to teach from the front of the classroom. It will also enhance my classroom by making the sharing of materials easier.

Miller, Michelle

Michelle.miller2@breathitt.kyschools.us

District/School: Breathitt County, LBJ Elementary

Grade Level: K-6 FMD

Project Title: Swivl to a Blended Learning and Flipped Classroom Environment to Promote Anytime, Anywhere Learning

Learning Innovation Grant Recipient



My Project name is Swivl to a Flipped Classroom. I plan to employ a Swivl Cam to flip my classroom, which will result in more student engagement time during the actual class. I will also create a classroom Holler page for my students to access uploaded videos and important classroom announcements. As a special education resource teacher, I teach multiple grade levels within a single classroom. I also plan to use the Swivl Cam in my resource room by recording the general education teachers' lessons and curriculum and then providing uploaded lessons for my resource students on iPads. Students will be able to access these lessons at school or home.

Mims, Sandy

sandy.mims@floyd.kyschools.us

District/School: Floyd County, Betsy Layne High School

Grade Level: 9-12

Project Title: Selling Beachfront Property in Kentucky

Learning Innovation Grant Recipient



This project will provide an opportunity for students to create a video commercial that is unique and memorable. Students in my Multimedia class will create 3 commercials that involve promoting 3 local businesses. The commercials will require choosing 3 local businesses that are willing to collaborate to design the commercials and allow students to record the commercials at the business site. Students will be responsible for every aspect of creating the commercials, from choosing the local businesses to presenting the edited commercials. Students must storyboard, rehearse, serve as actors, film, edit and reflect on each commercial. Then, they must present the commercials to the businesses. Using a scoring rubric, the commercials will be evaluated by the teacher and a representative of the business involved in the commercial. When the project is completed, the scores from each set of rubrics will be compared. The final review of rubric scores should show overall improvement in the areas evaluated.

Mobley, Steve

steve.mobley@knott.kyschools.us

District/School: Knott County, Knott County Central High School

Grade Level: 9-12

Project Title: You Aqua Know

Learning Innovation Grant Recipient



This project is predicated on exploring how we can produce locally sourced, high quality foods in a way that is eco-friendly. The Knott County Central Agricultural classes will produce tilapia and fresh vegetables by using a recirculating aquaponics system. We have already obtained an aquaculture tank and are currently producing tilapia. We would like to expand our production to include fresh vegetables. In order to do this, we need hydroponic equipment. During this project, students will install, operate, maintain and monitor the entire system. Students will also harvest the finished products. We are currently producing fish, and we would like to produce vegetables by the spring of 2016.

Moon. Matt

matt.moon@pike.kyschools.us

District/School: Pike County, Pike Central High School

Grade Level: 9-12

Project Titles: SmartMusic for Smart Students! & “Recording Progress: (Teaching 21st Century Technologies Skills through Music)”

Learning Innovation Grant Recipient

Project 1: SMARTMUSIC for Smart Students!



Instrumental music teachers, specifically band directors, are faced daily with the incredible and seemingly impossible task of teaching every student effectively. Imagine a class of 60 students ranging from weak to advanced performance skills representing a mix of 4 different grade levels in one classroom. Multiply that by 10 to 14 different types of instruments that make sounds in vastly different ways. Now, put them all into one room, with one teacher, within one 45 minute class period, and teach every individual effectively. For many years, band directors have used a holistic approach by rehearsing the group with vigor and hoping for the best. As a band director, the challenge involves differentiating and individualizing instruction to give each student the opportunity to maximize their talent. “SmartMusic for Smart Students” is a project that capitalizes on a widely accessible and user-friendly technology that can be used by individual students in a classroom setting as well as a home to improve individual formative and summative assessment practices and student practice techniques.

Moon, Matt

matt.moon@pike.kyschools.us

District/School: Pike County, Pike Central High School

Grade Level: 9-12

Project Titles: SmartMusic for Smart Students! & “Recording Progress: (Teaching 21st Century Technologies Skills through Music)”

Learning Innovation Grant Recipient

Project 2: “Recording Progress: (Teaching 21st Century Technologies Skills through Music)”



Throughout Eastern Kentucky, there is a shortage of knowledgeable and trained professionals in the live sound and recording industry. Live sound and recording technology is a 21st Century technology skill that few students ever encounter in the traditional general music classroom. Additionally, many students who take general music courses at the high school level are not interested in traditional music history or theory. So, the task-at-hand is incorporating a real world music technology unit in the general music classroom to help students gain 21st century music industry skills. The Goal of “Recording Progress” is designed to implement a hands-on and project based-unit where general music students become familiar with recording and live sound equipment, and utilize the equipment in real-life recording and live sound applications. Students will form small groups that will set up live sound systems for school events. Each group will also record projects for various school groups.

Moon, Sarah

sarah.moon@pike.kyschools.us

District/School: Pike County, Pike Central High School

Grade Level: 9-12

Project Title: Algebra Pride! (A Project-Based Learning Approach to Systems of Linear Inequalities)

Learning Innovation Grant Recipient



In high school algebra, oftentimes I find students merely memorizing patterns and procedures in order to pass an assessment. While drill, practice and memorization is important for developing a skill base, it does not take students to a level of deep understanding of the content. In order to help my Algebra 2 students develop a deeper understanding of systems of inequalities, they will jump feet first into project- based learning in order to design a creative and original fence-art display for our baseball field. I will launch the project by giving students a budget of \$1000 to create a fence design using “put-in-cups” (a patented product used for school-spirited fence displays). Classes will visit the baseball field fence, mark off the design area, and calculate their own space constraint. With the constraints of budget and space, they will create designs as groups and present their mathematical findings to their classmates. The student body will vote on a winning fence design to be displayed on the baseball field fence. Through this real life problem-solving activity, students will discover and develop a depth of understanding about key topics from systems of linear inequalities: constraints, feasible region and points of intersection. They will experience the topic in a real way and be expected to communicate their group’s mathematical findings to their classmates through a media presentation.

Mullins, Sharon

sharon.mullins@johnson.kyschools.us

District/ School: Johnson County, Porter Elementary

Grade Level: Preschool

Project Title: Teaching to Their World

Preschool Innovation Grant Recipient



Through the use of iPad minis, children will interact with technology to learn, practice and improve early math concepts and skills. The technology devices and appropriate apps will help to personalize instruction, serving as an early foundation for mathematical understanding.

Mullins, Stephanie

stephanie.mullins@pike.kyschools.us

District/School: Pike County, Southside Elementary

Grade Level: Kindergarten

Project Title: How's the Weather in Your Neck of the Woods?

Learning Innovation Grant Recipient



My class of Meteorologist will explore the many types of weather and the important role weather plays in our lives. During this learning journey the students will be tracking the daily weather in their weather journal, looking for patterns and learning about the different types of weather. They will be using different tools, such as thermometers and a rain gauge to incorporate measurement and counting into our daily routines. The students will be conducting experiments such as making clouds and a tornado in a bottle and they will be exposed to a variety of weather related reading material. The students will also design and build a structure to reduce the warming effects of the sunlight on their playground. Furthermore, the students will research the daily weather forecast and serve as morning meteorologist on our schools daily WKID broadcast.

Napier II, Charles David

david.napier@breathitt.kyschools.us

District/School: Breathitt County, Sebastian Middle School

Grade Level: 7/8

Project Title: Programming into the Future: Building Robots to Prepare Students for the Jobs of Tomorrow

Learning Innovation Grant Recipient



My 7th and 8th grade mathematics students will construct and program robots to accomplish real-world tasks. They will be doing this activity to extend their knowledge and understanding of STEM components and to specifically improve their competency in mathematics. This will also help them become more college and career ready by providing them with experience in the fields of electronics and engineering. Students will use Vex robotics kits to build and program their own robots. They will eventually use the design process with these kits to design and create a unique and original robot of their own.

Newsome, Amy

amy.newsome@pike.kyschools.us

District/School: Pike County, Southside Elementary

Grade Level: 4

Project Title: Tinkering in the 21st Century Classroom: Learning Math with Gaming

Learning Innovation Grant Recipient



As a 4th grade classroom teacher, I plan to implement a game-based design unit of instruction in to my fourth grade math classroom for the 2015-2016 school year. Based on recent research and best practices, students who struggle with math concepts learn better when engaged in game-based learning activities. Using this research, I will implement Tynker, an online computer code curriculum to teach my students how to create math apps and computer games. Students will use their MAP data and student data notebooks to help them choose a math skill they would like to learn more about. They will use this research and their prior knowledge of math games to develop their own math app or game.

Parsons, Andrea

andrea.parsons@magoffin.kyschools.us

District/School: Magoffin County, Magoffin County High School

Grade Level: 10-12

Project Title: 3D Printing Inventions

Learning Innovations Grant Recipient



Students will be conducting interviews of people in various age groups. They will then be paired with another student to discuss the interviews and find a problem to solve by creating an invention or modifying a product. Once the student pairs create a design, discuss it with their peers and other adults, and it passes standards set by the students as a whole class the product will be printed using the 3D printer. The product will then be tested by students and displayed in an art exhibition.

Price, Kendra

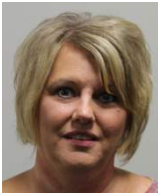
kendra.price@johnson.kyschools.us

District/School: Johnson County, Central Elementary

Grade Level: Preschool

Project Title: Bridging the Gap in Technology

Preschool Innovation Grant Recipient



My students will gain access to technology by learning how to use iPad Minis on a daily basis through the introduction of early math skills. Students will explore the concept of quantity and its uses in daily interactions and the world around them. Age-appropriate apps will be utilized.

Puckett, Frankie

frankie.puckett@paintsville.kyschools.us

District/School: Paintsville Independent, Paintsville Elementary

Grade Level: K-4

Project Title: For The Love of Reading

Learning Innovation Grant Recipient



As teachers, especially special education, we are challenged with the task of moving students toward becoming more independent and less reliant on adult assistance. The goal of this project is to provide students with small, portable devices that can eventually be used independently in a variety of settings, allowing them to “take charge” of their own learning to a greater extent.

Roberts, Karen

karen.roberts@pike.kyschools.us

District/School: Pike County, Mullins Elementary

Grade Level: 1

Project Title: Buzzing About Learning

Learning Innovation Grant Recipient



Technology can help improve student learning. Primary students can problem-solve and learn reading and math skills using bee bots. In conjunction with the curriculum, teachers will share a set of bee bots to introduce problem-solving and reinforce reading and mathematics concepts. A problem-solving curriculum and mat will be available for students to learn logical thinking skills while integrating technology. Students will be actively engaged in commanding the bee bots to move locations on the lessons mat. For example, a money mat may let students tell their bot to “pick up” twenty-eight cents. The student will have to give the bot the command to move forward, left or right to get the right amount of money. Plain mats will also be used for problem-solving scenarios, and students will have to figure out the best solution. The bee bots can be used throughout the school year to reinforce curriculum and introduce problem-solving.

Robinson, Amanda

amanda.robinson@pike.kyschools.us

District/School: Pike County, Millard School

Grade Level: 6

Project Title: #WritingClass #Epic

Learning Innovation Grant Recipient



In order to eliminate the reluctance toward writing in the 6th grade, this project will incorporate a variety of web-based programs and applications that allow students to showcase their writing in creative and innovative ways. Student and teacher subscriptions to GoAnimate, Glogster, and StoryBoard will allow students to apply their writing skills to create published pieces that can be embedded on the class blog and social media sites. These subscriptions will be used throughout the school year and across the curriculum. For example, during our Informational Reading Unit, students will utilize Glogster to create a multimedia poster that describes a “how to” process including a video performing the task through their steps. Also during that unit, they will use StoryBoard to create a timeline based on their research of a famous individuals. This site will also be used for the completion of other graphic organizers to prepare their writings. During the Literary Unit, students will be given the opportunity to create narratives using a Graphic Novel framework from StoryBoard. Also, students will be able to explore character development through GoAnimate. With this program, students will also create an avatar to simulate their written text.

Rose, Randy

randy.rose@mboro.kyschools.us

District/School: Middlesboro Independent, Middlesboro Elementary

Grade Level: 4

Project Title: The Greenhouse Effect

Learning Innovation Grant Recipient



The area of focus for this project will be to measure the reading and math progress of 4th grade RTI students through the effectiveness of a project-based learning experience. Using a newly constructed green house, the students will grow wave petunia plants from seeds and present them as mature flowering baskets to their mothers or caregivers at a culminating Mother’s Day event. This project will require students to practice reading, writing, science and mathematics standards while taking ownership of this project. Throughout the project, students will also keep a logbook and video diary. They will create an IMovie of the entire project to be presented--along with the flowering baskets--on Presentation Night. Using STAR Reading and Math assessments, student growth will be compared to students that did not participate in the project.

Salyers, Michelle

michelle.salyers@breathitt.kyschools.us

District/School: Breathitt County, Highland Turner Elementary

Grade Level: Preschool-8

Project Title: Self-Monitoring to Improve Speech Carryover and Generalization

Learning Innovation Grant Recipient



Based on baseline data, students who are at sentence, reading and conversational level with models will be identified to participate in video monitoring. A baseline video will be completed by each student reading paragraph material and spontaneously speaking. Each month the student will videotape themselves reading a paragraph and in spontaneous conversations. After each video the speech therapist will document the students' errors and progress. The student will also review the video each time and document their own errors to make them more aware of their errors and their use of good speech techniques. Students will do self monitoring by May 2016, which will make them less reliant on the speech therapist.

Salyer, Terry, Shepherd, Marc and Justin Arms

terry.salyer@johnson.kyschools.us, marc.shepherd@johnson.kyschools.us & justin.arms@johnson.kyschools.us

District/School: Johnson County, Johnson Central High School

Grade Level: K-12

Project Title: Juice Knew Energy Fair

Learning Innovation Grant Recipient



The Juice Knew Energy Fair is an educational project-based learning activity that is administered by an energy manager and 2 engineering instructors from the Johnson Co. School District. It is designed to provide P-12 students the opportunity to understand energy management concepts and behavioral cultures that will aid and contribute to the reduction of energy consumption in their schools and homes. One focus of this project will be to encourage and engage students in the educational aspect of energy conservation and the benefits financially, environmentally and culturally. The second focus will be to develop energy terminology and monitoring analysis for the comprehension of energy management conservation in our world today. This project event will encompass extensive research hours of independent study for individual building applications. Students will present their project to their respective schools, and the top 3 project winners from each division will compete at a district competition. This project will also educate and encourage participating students and reward their innovations on the application of future professional vocations in the energy field. The event is held in the high school gym and additional classrooms depending on student participation. Our main goal this year is to expand from just the core STEM projects to show growth in 4 additional categories--Visual Arts, Multimedia/Technology, Essay, and Performing Arts.

Sanders, Emely

emely.sanders@jenkins.kyschools.us

District/School: Jenkins Independent, Jenkins Elementary

Grade Level: 1

Project Title: Fitness Forever

Learning Innovation Grant Recipient



This project will create opportunities for students to enjoy an enriched and quality physical education, lifelong wellness and healthy habits. The plan of action is to integrate project-based learning with physical education as a collaborative and innovative approach to the importance of a healthy lifestyle. Spark Curriculum for grades k-2 and a variety of new physical education equipment will be utilized for this project. The class will also partner with the school's STLP team (4th & 5th grade students) who conduct a daily news broadcast called the "Burdine Buzz." First graders will become a part of this broadcast weekly by incorporating a "Fitness Broadcast" using I-Movie. Students will teach a physical education skill or give fitness tips that they learned through the Spark Curriculum each week. In addition to the Burdine Buzz, students will share broadcasts on the Class Twitter Page, School Facebook notepad and the Holler.

Scott-Stewart, Tammy

tammy.stewart@harlan.kyschools.us

District/School: Harlan County, Cumberland Elementary

Grade Level: 6

Project Title: CES Challenge Center Rendezvous with a Comet Mission

Learning Innovation Grant Recipient



This school year the goal will be for students to foster collaboration between our school and community resources to enhance the quality of science and mathematics through inquiry-based learning. Sixth grade students will visit the Challenger Learning Center in Hazard, KY. Through space exploration activities, they will become inspired to learn more about science, mathematics and technology. With the increasing demands for students to become 21st Century learners, it is difficult as a facilitator in the classroom to motivate, engage and to provide real-world applications beyond the Core Academic Standards. Most of students have a marginal background knowledge of science concepts and limited access to outside resources and experiences. The Challenger Learning Center activities will offer a wide range of skills that align perfectly with the Next Generation Science Standards (NGSS).

Shepherd, Shannon

shannon.shepherd@floyd.kyschools.us

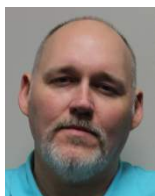
District/School: Floyd County, Betsy Layne Elementary

Grade Level: 9-12

Project Titles: Time Travelers & “In the Beginning, there is ART”

Learning Innovation Grant Recipient

Project Title 1: Time Travelers



The project plan is to have Visual Arts II-IV classes (40 students at present) create individual dioramas of an art history period that is of interest to them. The diorama will be one of two culminating assignments that pull together all that they have researched and learned about a particular time period. In the diorama, students will include a number of artifacts that they have personally made based on real art from the period. They will include relevant information and characteristics about the time period such, as important artist, media and art styles during the period. They will then teach to the class or classes what they have learned using their diorama as a visual teaching tool. The second culminating assignment will be for the students to individually create a piece of art from one of the art periods that was shared with them, and not necessarily the one they researched. The artwork must be an original work created in a style of the period. The student will then teach the class or classes in an art jury format to demonstrate authenticity. The class will evaluate finished products through oral and written critiques. Dioramas and individual artworks will be displayed at school, and students will present at an open house.

Project Title 2: “In the Beginning, there is ART”

Many students arrive in a Visual Arts I course having very little, if any education in the visual arts. As a result, students do not have a good foundation in the visual arts (Elements of Design). The Elements of Design are the basic components of visual communication. Students have an awareness of them, but do not know the language and/or lack the knowledge to put them together to create successful finished artworks.

Slone, Carolyn

carolyn.slone@johnson.kyschools.us

District/School: Johnson County, Johnson County Middle School

Grade Level: 7

Project Title: Bringing Science to Life with Augmented Reality

Learning Innovation Grant Recipient



Twenty-three years experience as a middle school science teacher has taught me the benefits of using technology to engage students in the learning process. By allowing students to download the Blippar app on their mobile devices and use the iPads, they will be able to use this app to witness images coming to life through the Brainspace Magazine, which covers a variety of topics from individual cells to the entire skeletal system. This magazine adds 3D images, as well as links to exciting videos, both of which lead to a more enthusiastic student and a more dynamic learning experience.

Smith, Debra

debra.smith@pike.kyschools.us

District/School: Pike County, Southside Elementary

Grade Level: 4

Project Title: How Do We Grow A Garden?

Learning Innovation Grant Recipient



This project is the continuation of the High Tunnel from last year, with the objective of students learning how to grow a better garden. We will begin with planting seeds, cultivating the garden, harvesting, and the selling of products that are produced with the ARH Farmer's Market. This year an exhaust and watering system with timers will be added to the High Tunnel. Students will also be learning about the propagation of plants and how to grow different species of roses.

Stewart, Sally

sally.stewart@wolfe.kyschools.us

District/School: Wolfe County, Wolfe County Middle School

Grade Level: 8

Project Title: Quilt Blocks: Education Through Recreation

Learning Innovation Grant Recipient



Students will study the principles of geometric design by creating a quilt block canvas that will be displayed in the school. Students will be exposed to the world of geometric quilt design. Students will be required to obtain photos of barn quilts from the Internet and on educational enhancement days. During the Internet phase of exploration, students will be directed to follow the American Quilt Trail, which allows students to access national and local quilt designs. An educational enhancement day to the UK extension office will allow students to view quilts that are perched on the building. Virtual communication will also be used by Skyping with the National Quilt Museum in Paducah, KY. Once students have been exposed to numerous

examples of geometric designs, they will be grouped in pairs to advance their projects. Students will explore a chosen quilt design by using manipulatives and pattern blocks. They will create a design on graph paper; which will then be transferred to the computer for additional of color. Classmates will vote on an overall color scheme. The chosen design will then move into production, where students will begin to transfer a computer animation onto a canvas, based upon their knowledge of scale drawing and scale factoring. The canvases created by the students will be displayed throughout the school.

Tackett, Alice L.

alice.tackett@pike.kyschools.us

District/School: Pike County, Southside Elementary

Grade Level: 2

Project Title: Reboot Appalachia: Reviving the Forests of Kentucky with the American Chestnut Tree

Learning Innovation Grant Recipient



Reboot is a computer term used to describe restarting after an error has occurred. Appalachia is in desperate need of revitalization due to the decline of the coal industry and land damage that surface mining left behind. The project will provide resources and a framework for students to explore solutions and develop a plan of action. Students will study the forest ecosystem and the history of the American Chestnut tree. Student teams will research, develop solutions, create and share presentations, build models and educate fellow students using innovative technology skills. They will explore the biological, social and economic impact of reforestation. Students will discover answers to essential ecological questions impacting Central

Appalachia as they utilize technology to engage in project-based research.

Tackett, Lartha Angela

angela.tackett@pike.kyschools.us

District/School: Pike County, Southside Elementary

Grade Level: 2

Project Title: "Engineering Energy"

Learning Innovation Grant Recipient



Throughout this unit students will conduct investigations to answer questions about energy. During their exploration they will determine that energy is the ability of matter to move matter or to produce a chemical change in matter. They will explore the difference between potential and kinetic energy. Students will examine the 6 major forms of kinetic energy and characterize mechanical energy. They will create heat and light energy and learn that energy itself cannot be seen; its presence and transfer can be sensed and measured.

In their explorations, students will become familiar with how scientists can use their senses and instruments to make observations and collect data. Through the various modes of communication, students will transform into 2nd Grade Scientists to conduct research, collect data and perform investigations. They will work in teams to solve problems that require them to have creativity and foresight as burgeoning inventors, designers, and pattern recognizers. Students must embrace the ability to work collaboratively, prioritize, set goals and resolve conflicts in order to become "life-long learners." They must also be able to present ideas clearly using (Lenovo Chromebooks) Google Drive and Apps, and iPad Apps. Utilizing 21st Century technology, students will be given opportunities to create video journals, virtual museums, blogs, web quests and pod casts, as well as Skype with resource personnel using the Mondopad and movies to share and present learning experiences. Through collaborative efforts, students will produce a working model of a real life object to demonstrate the transfer of energy.

Tackett, Traci

traci.tackett@pikeville.kyschools.us

District/School: Pikeville Independent, Pikeville Elementary

Grade Level: K-6

Project Title: Every Child a Gardner

Learning Innovation Grant Recipient



The students at Pikeville Elementary School have implemented a vegetable garden where many different vegetables are grown. Last year the mini-grant was used to purchase basics tools, seed and row cover. This year the garden is going "techy" through the addition of mini iPads. The plant varieties will be labeled with QR codes to allow research to take place in small groups outside. The goal is to implement small group learning stations in the garden for the purpose of managing whole classrooms during instructional time.

Thomas, Prudie

prudie.thomas@mboro.kyschools.us

District/School: Middlesboro Independent, Middlesboro Elementary School

Grade Level: K-5, Library Media Center

Project Title: The Blended Learning Library

Learning Innovation Grant Recipient



The blended learning approach to help students become more responsible for their own learning, stay engaged, and acquire 21st Century Learning Skills. I will do this my second and third grade classes during their 50-minute class block. The learning centers will focus on digital literacy, keyboarding & multimedia presentations, digital citizenship, and educational reading programs. It will culminate in a Spring Showcase where students can share their learning projects with friends and family.

Thomas, Stephanie

stephanie.thomas@breathitt.kyschools.us

District/School: Breathitt County, LBJ Elementary

Grade Level: 3-6

Project Title: Robotics Lead the Way

Learning Innovation Grant Recipient



The students in grades 3-6 at LBJ will be using robotics kits this year with the Project Lead the Way Curriculum. All students in grades 3-6 will be using these kits for different types of modules. Students will be using the PLTW Vex IQ Construction Kits and PLTW Vex IQ Robot Design Kits. Students will complete the modules throughout the year. Some of the modules require students to build simple machines, compound machines and robots, as well as program the robots. Students will build and test robots to collect blocks and move them across the floor. Students in grades 5-6 will simulate removing hazardous materials from a disaster site with the robots they engineered. Students will also engineer robots and program them to work autonomously. The robots will be programmed to simulate taking supplies to patients in a hospital.

Trent, Sarah

Sarah.trent@jacksonind.kyschools.us

District/School: Jackson Independent, Jackson Elementary

Grade Level: 6

Project Title: Understanding the World Around Us

Learning Innovation Grant Recipient



Students will be absorbed in our history and do digital projects explaining how the past has directly impacted our present. They will research, go on a field trip, keep a journal and have a guest speaker to help them develop their projects. To help them explore our past, students will visit ECU'S Geography Department, look at the special collections and meet with professors. Students will take notes, pictures, and videos (using the iPads) to develop their project. A guest speaker will also visit to answer more questions and give more information about their projects. Students will be given a detailed geographical theme to research before their field trip that will be presented in a school showcase. They will develop a rubric, do research, keep a journal and develop a digital project. It may include iMovie, PowerPoint and moviemaker. Journals will be kept throughout this project and will be turned in with their final project.

Vanover, Vanessa

vanessa.vanover@letcher.kyschools.us

District/School: Letcher County, West Whitesburg Elementary

Grade Level: 1

Project Title: First Grade Transformations"

Learning Innovation Grant Recipient



First grade students will use project-based learning to discover animal transformations. Students will design and create terrariums that will then be used to view the lifecycle of butterflies and frogs (and maybe some other insects if possible). We will use a document camera to view the different stages of the lifecycle up close. Students will keep journals of their learning and then create a presentation to show all that they have learned. These creations will be presented at an open house for school and community members.

Varney, Shelia

shelia.varney@pike.kyschools.us

District/School: Pike County, Southside Elementary

Grade Level: K

Project Title: Are the Forces with You?

Learning Innovation Grant Recipient



Twenty-four Kindergarten engineers will use the Osmo Newton software to investigate force and motion. This 4- week unit will begin with STEM activities including cars, spools and marbles with action and reaction ramps. At the end of the unit students will attempt to design a house that cannot be blown down by a big bad wolf; construct a bridge that cannot be brought down by a troll; and build a chair that Goldilocks cannot break.

Watts, Angie

angie.watts@floyd.kyschools.us

District/School: Floyd County, Prestonsburg Elementary

Grade Level: 2

Project Title: Would You Rather? Making Math Meaningful with Mentors

Learning Innovation Grant Recipient



Second grade students often struggle to explain and justify their mathematical thinking. By using math journals and mini iPads, 2nd grade students will reflect on mathematical problem-solving strategies and share their reasoning on the classroom blog. Students will create math tutorial videos to share on the classroom blog. They will Skype with high school students and play a mathematics version of the game Would You Rather. Students will also use QR codes at math stations to direct them to content specific websites for differentiated instruction and practice. With the implementation of technology and game- based learning, students will have a better understanding of mathematical concepts and feel more comfortable in explaining their mathematical thinking.

Wheeler, Jason & Cantrell, Matt

jason.wheeler@johnson.kyschools.us & william.cantrell@johnson.kyschools.us

District/School: Johnson County, Johnson Central High School

Grade Level: 9

Project Title: “Design-Based Learning for the Digital Age”

Learning Innovation Grant Recipient



This project will analyze the design-based work of Matt Cantrell and Jason Wheeler’s American Seminar students. As opposed to project-based learning where the problem is already determined, design-based learning has students define the problem. Our research will focus on work. Recent developments in education have prompted leaders to find ways to effectively assess student growth without relying so heavily on standardized tests. Cantrell and Wheeler believe that they can successfully measure student growth in design-based learning with the use of digital portfolios. These portfolios will contain student essays, presentations, competitions, oral histories and instructor and student reflections. The project will collect student work from August to May and will be used to show growth in writing, public speaking and research. Moreover, the portfolios will also include teacher and student commentary on projects and assignments, so that assessment can be much more than just a letter grade or statistic. Even though this is a humanities class, students will be required to research, write and present on topics ranging from the sciences to math. To complete the project, students will need access to cameras, storage devices, and Camtasia Software.

Whisenant, Katrina

katrina.whisenant@letcher.kyschools.us

District /School: Letcher County, West Whitesburg Elementary

Grade Level: Preschool

Project Title: Project Promethean

Preschool Innovation Grant Recipient



Many issues faced in preschool classrooms are finding age-appropriate and effective ways to involve students in learning. Kentucky IECE standards require students to engage in hands-on and interactive learning tasks and projects. IECE standards encourage teachers to address various learning styles such as visual, tactile, kinesthetic and audio. This project will allow students to fully engage in whole and/or small group instruction. Students will actively utilize the Promethean Board and relevant apps to address letter recognition and begin promoting literacy development.

Wright, Cathy

cathy.wright@paintsville.kyschools.us

District /School: Paintsville Independent, Paintsville Elementary

Grade Level: 1

Project Title: Imagine! And Then Write It

Learning Innovation Grant Recipient



A writing station will be set up in the classroom. Cricut will be used to make the wordwall so students can clearly see the words. Die cuts will be used to make special cartoon characters for the students when they are first beginning the comic book activities. Students will use the Osmo on their iPads to inspire real art work from scanned, traced and found materials. Students will go to the writing station daily. The students will be able to demonstrate understanding of the organization and basic features of print.

Wright, Kendall

kendall.wright@magoffin.kyschools.us

District /School: Magoffin County, Magoffin County High School

Grade Level: 9-12

Project Title: Experiential Learning in Reproductive Physiology

Learning Innovation Grant Recipient



Through this program, students will be responsible for the care of a pregnant cat, which will be fostered from the local animal shelter. Students will be responsible for maintaining the animal's facilities-- cleaning, sanitation and medical needs. Throughout the pregnancy, students will learn about reproductive physiology content—gestation and fetus development. Each day, the students will monitor the progress of the pregnancy by observing changes in the cat using information learned in class. They will take measurements daily, including stomach width and milk production. Students will accompany the cat to the veterinarian for all checkups to observe the veterinary practices used to monitor the cat. Students will set up a video camera every night to film the animal in case the cat conceives outside of school hours. The birth will be watched via the recording. Once the kittens are born, students will learn about the development of young animals and observe their growth, again taking measurements. Students will develop and implement a marketing plan for the kittens with the goal of adoption. The culmination of this program will be a 5 to 10-minute presentation on some aspect of the reproductive physiology unit.

Younger, Stephanie

stephanie.younger@pike.kyschools.us

District /School: Pike County, Belfry High School

Grade Level: 9-12

Project Title: Switch Traditional...Go Digital

Learning Innovation Grant Recipient



This project will bring the 21st century learner into the 21st century classroom through a 1:1 classroom/blended learning environment. Students will learn how to utilize current available technology to take ownership and thoroughly engage in their individual learning. They will even create personalized instructional videos of content to help others. We hope to show through technology use, students can be engaged without jeopardizing instruction.

Appalachian Renaissance Leadership Declaration

Leader \li:der\n.: *Anyone who holds her- or himself accountable for finding potential in people or resources.*

To the students, teachers, and principals. To the politicians, community leaders, and decision makers. To neighbors, partners, and colleagues.

To all of us, from all of us:

We will show up, we will learn, and we will inspire.

We are hardwired for connection, curiosity, and engagement.

We crave purpose, and we have a deep desire to create and contribute.

We will take risks, embrace our vulnerabilities, and be courageous.

We understand that when learning and work are dehumanized – when people are no longer seen and daring is no longer encouraged, or when only what we produce or how we perform are valued – we disengage and turn away from the very things the world needs from all of us: our talent, our ideas, and our passion.

There are examples of excellence all around us. We will celebrate and expand these exemplars so that all of us together achieve our potential to serve our region’s learners.

We believe that feedback is a function of respect; we will have honest conversations about our strengths and our opportunities for growth and we will celebrate our contributions and commitment.

Engage with us in this work, learn with us, and...

Dare Greatly.

We would like to thank

Extreme Networks

and

Gearheart Communications

**for sponsoring the WiFi and Broadband for
todays event!**



Please complete the *Ladder of Feedback Form* for each presentation.

At the end of the day, please take time to complete the *Summit Survey*.

Thank you in advance...

Ladder of Feedback: <http://goo.gl/forms/ydkhBypde3>



Summit Survey: <http://goo.gl/forms/huUHgKrRE8>



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