

# ABC CREATE Quarterly



Vol .02  
May 2023

## TEACHER PROFESSIONAL DEVELOPMENT



## WORKFORCE CONNECTIONS



Photo credit: Digital Foundry

## SUMMER CAMPS



## ABC CREATE L.E.A.D.S.

LEVERAGING EDUCATION  
to ACCELERATE DIVERSITY  
and SUCCESS

### ELEMENTARY CS/STEAM

### PARTNERS: SCHOOLS, BUSINESS, COMMUNITY

### COMMUNITIES + FAMILIES

### EXTENDING IMPACT

### A LOOK INSIDE L.E.A.D.S.

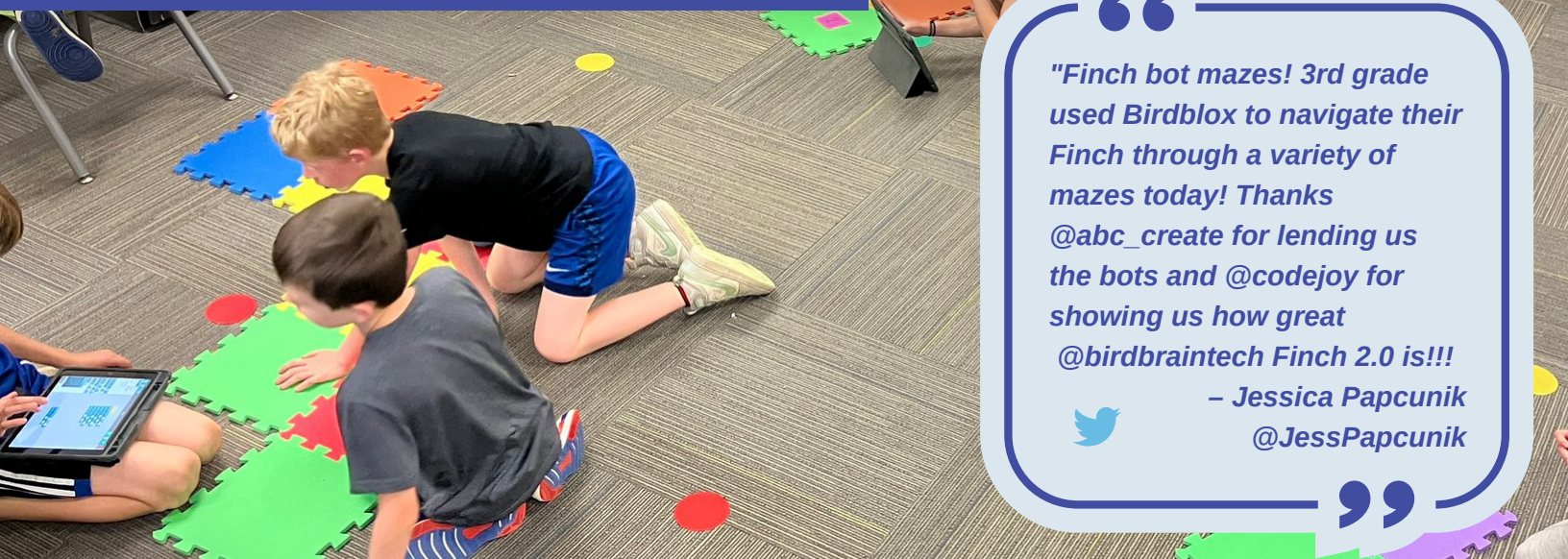
### UPCOMING OPPORTUNITIES

### IN THE NEWS



# Elementary CS/STEAM

## TEACHER PROFESSIONAL DEVELOPMENT



*"Finch bot mazes! 3rd grade used Birdblox to navigate their Finch through a variety of mazes today! Thanks @abc\_create for lending us the bots and @codejoy for showing us how great @birdbraintech Finch 2.0 is!!!*



*– Jessica Papcunik  
@JessPapcunik*

**This winter, more than 100 teachers from across 17 school districts took advantage of free, virtual, hands-on professional development (PD) led by CodeJoy on how to use the Hummingbird Robotics Kit, the BBC Micro:bit, and the Finch Robot.**

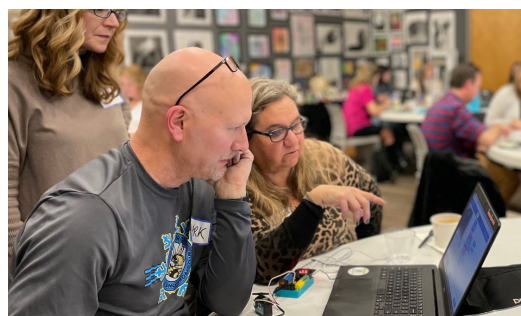
Many teachers found the sessions to be so impactful and relevant that they signed up to attend additional sessions, expanding and enhancing their knowledge of coding and robotics. Over the 11 CodeJoy led sessions, 105 teachers filled 308 seats - meaning that, on average, each participating teacher attended 3 sessions.

In a PD exit survey, teacher participants reported increased confidence in coding and robotics by 31%, and increased likelihood of teaching their students coding and robotics by 47%.

**Roughly a month later, 59% of attendees reported having already used what they learned in their class!** Fox Chapel teachers Stan Strzempek, Jess Papcunik and Sarah Everest are among those taking action. Right away, they borrowed Finch classroom sets from the ABC CREATE lending library.

*"The hands on engineering tips and tricks used to build Hummingbird Robots was priceless. We also switched to coding with BirdBlox instead of Microbit which was also a game changer when it came to flashing code to Microbits."*

*– Stan Strzempek, Fox Chapel*





ABC CREATE L.E.A.D.S.

# Elementary CS/STEAM

## BOTLUCKS + A RECAP OF CS/STEAM LEARNING



Hands-on learning opportunities that meet teachers where they are and help them get what they need to take a step forward with STEAM integration, coding, and robotics: that's the goal.

Building on the success of the PD trainings led by CodeJoy, ABC CREATE and ARIN IU 28 hosted a total of four Botlucks this winter. Botlucks invite teachers to bring an idea, question, or general curiosity and get support from other teachers in the region, as well as from ABC CREATE leaders and experts. With participation from 10 districts at the Botlucks, we have loved seeing the fruitful cross-district interaction among teachers!

“WOW - so many teachers came out for our in-person "Botluck" at @PennState New Kensington tonight! This @abc\_create community is THRIVING! @ariniu28 @remakelearning

— CodeJoy, @CodeJoyEdu

## 2022-2023 ELEMENTARY CS/STEAM BY THE NUMBERS



2  
PARTNERS



19  
DISTRICTS



55  
STUDENT  
SESSIONS



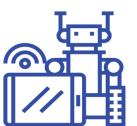
4329  
STUDENT  
ATTENDEES



15  
TEACHER  
SESSIONS



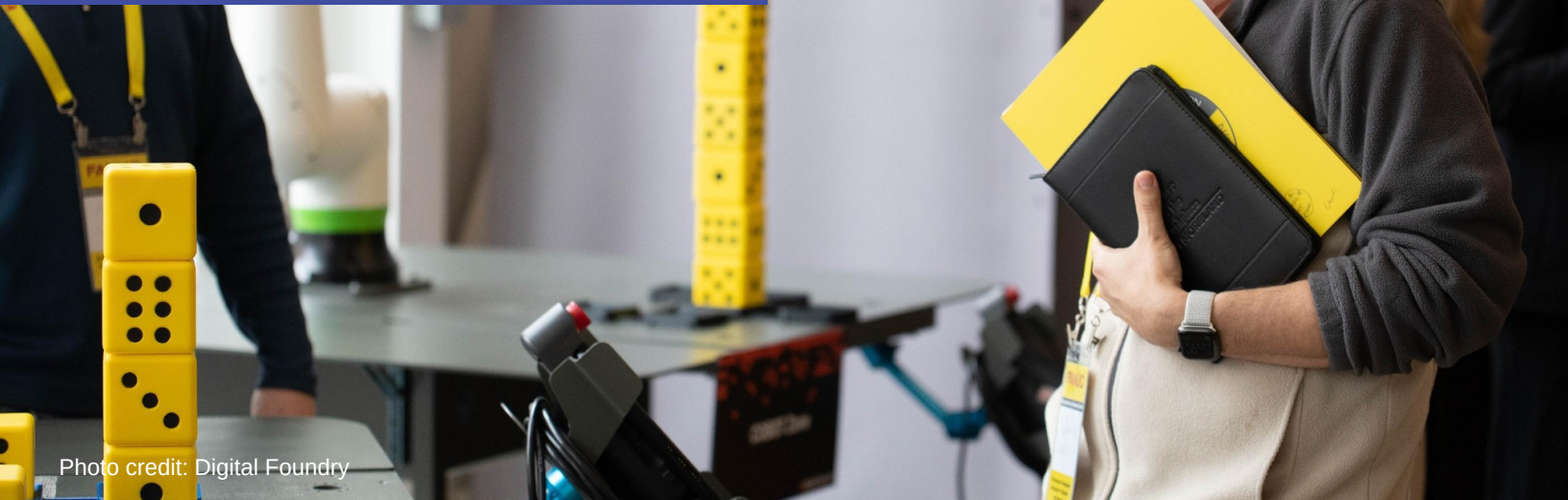
105  
TEACHER  
ATTENDEES



3  
ROBOTIC  
TOOLS

# ABC CREATE L.E.A.D.S. PARTNERS

## SCHOOL-BUSINESS-COMMUNITY PARTNERSHIPS TRAINING



ABC CREATE is fortunate to have tremendous partners in the region who share our goal of aligning student learning to what's happening in the local community and industries. This spring, it was a delight to see area school districts represented at two events hosted by respected partner organizations. It's a reminder of the importance of collaboration across our region and across sectors.

Robotics are changing the manufacturing sector, and in ways that are hard to fully grasp until you see it in action. It was a pleasure to support and see many of you at the **Aligning Skills Between Industry & Education** event, hosted by the Digital Foundry and FANUC, earlier this month where participants had a chance to learn more about current practice in the industry.



Recently, teachers and school leaders from across the region attended the **Future-ready Partnerships Conference**, an event hosted by Consortium for Public Education.

One of the highlights was hearing Burrell High School students speak about their experiences with project-based learning. These students did a fabulous job clearly articulating the skills they gained, and the impact this learning has had on them individually and on the collective school culture.





# COMMUNITIES + FAMILIES

## SCHOOL STEAM NIGHTS



With our partners, ABC CREATE is working to create and model community-based events designed to engage families and community members along with school-aged learners in hands-on computer science, STEAM, and future-ready activities.

On a beautiful Thursday evening this May, nearly 30 New Kensington-Arnold families chose to spend their evening at Roy A. Hunt Elementary's first Family STEAM Night.

Volunteer educators and community partners guided 5th and 6th grade students and their families through STEAM stations. At one station, participants programmed drones to simulate how pollination occurs when a bee travels from one flower to the next. Other stations offered hands-on learning with circuits, the Finch robot, LEGOs, and engineering.

Energy and enthusiasm were high. **Nearly 90% of participating adults said they left with a better understanding of how computer science and STEAM skills can help their child prepare for the future.** Feedback following the event suggests families enjoyed both the learning and the quality time together. "This was a really nice way to spend an evening with family," said one parent. Another said, "Thank you for having this event! All of the stations were really fun." We look forward to engaging in and learning from more school STEAM Nights in the future!

— “

*"This was a great event for parents to do new and exciting activities with the kids. It was a great bonding event I could do with both kids and keep them involved."*

— Parent

” —



# EXTENDING IMPACT

## ANNUAL REPORT & STORIES OF IMPACT



Each year, ABC CREATE conducts an assessment in order to learn from successes and respond to challenges as plans are made for the year ahead. The report from this year's assessment captures district-reported STEAM and future-ready accomplishments and priorities, as well as nine detailed stories of implementation from schools and classrooms across the region.



**Advancing STEAM  
and Future-Ready  
Learning Across the  
Alle-Kiski Valley**



Annual Report for the Collaborative

May 2023

Prepared by Bortz Consulting

ABC CREATE was founded with a vision to be a regional catalyst and change agent by investing in innovative STEAM education. Pop into any one of the 14 member districts and you are sure to find bright spots of just this: students immersed in hands-on, relevant, and engaging STEAM learning.

District accomplishments largely fall in five categories:

- **Experiences and exposure-oriented lessons** that introduce students to a particular technology, skill, or concept;
- **Course additions and sequences** to both expand and deepen STEAM learning, including computer science;
- **Increased student access to technology**;
- **Educator development and capacity building**, including coaching and peer learning efforts; and
- **Local partnerships** that expand or strengthen opportunities for students.

[\*\*EXPLORE THE REPORT\*\*](#)



ABC CREATE L.E.A.D.S.

# A LOOK INSIDE L.E.A.D.S.

KEEPING UP WITH  
STUDENTS' GROWING  
DIGITAL EXPERIENCES

Have you ever been amazed by just how quickly a class masters a new coding skill, or surprised by how comfortable students are the first time they get their hands on a new technology?

"Years ago, when we started introducing coding to 6th graders we would spend months on one project, whereas today I think Kindergarteners would solve the same puzzles in just a couple class periods" says Lisa Gray, STEAM Specialist in Allegheny Valley School District. **"We have to change everything we're doing because they're coming in with the concepts."**

Students today are exposed to technology at levels like never before. This is happening in part at home, but it is also a result of all the ways in which districts across the region have prioritized STEAM in recent years. The fact is, educators and school systems as a whole have to continuously adapt and evolve in response to keep pace with students' growing exposure to new technology.

**This need to change to "keep up" is evidence of our progress, even as it forces us to continue learning and growing together.** As this school year ends, let's celebrate how far we've come and recommit to our shared goals for innovative & future-ready learning.

REMINDERS AS WE KEEP  
LEARNING AND  
GROWING TOGETHER



## ADOPT A GROWTH MINDSET.

This is anything but static work. Just when we integrate one new technology, things change around us. Much like we ask of students, we too must adopt a growth mindset and recommit to learning.

## START WHERE YOU ARE.

Some districts are further ahead than their peers in certain ways, and likewise teachers are in different places with their STEAM experience—and that's okay! Jump into this work wherever *you* are.

## GIVE AND TAKE.

We are fortunate to have a network for collaboration. *Give* by sharing what's working for you, and *take* new ideas from your peers. Everyone has something to offer, and we all get better by learning from one another.



# ABC CREATE L.E.A.D.S.

# UPCOMING OPPORTUNITIES

## ELEMENTARY CS/STEAM

### ABC CREATE Teacher Summer STEAM Retreat

Monday, August 7 - Wednesday, August 9

SAVE THE DATE

- Come explore technologies alongside fellow K-12 teachers as we focus on how to be intentional in our use of technology in the classroom.
- All ABC CREATE partner district teachers are invited. Look for more details and registration information in June.

## PARTNERS: SCHOOL, BUSINESS, COMMUNITY

### Project-Based Learning Training

Wednesday, June 14 from 8:30 AM - 2:30 PM  
Wednesday, June 21 from 8:30 AM - 2:30 PM  
@ Penn State New Kensington

SESSIONS FULL

(cms64@psu.edu)  
to be added to the  
waitlist.

- Two day training led by the Consortium for Public Education
- Gain an understanding of PBL, build skills, and begin planning a project of your own
- All ABC CREATE partner district teacher attendees will receive a \$40/hour stipend

### Educator in the Workforce

Tuesday, June 13, 9 am - 1:30 pm @ CMU's Entertainment Technology Center  
Thursday, June 15, 9 am - 1:30 pm @ Cook Medical  
Tuesday, June 20th, 9 am - 1:30 pm @ Elliott Group  
... and more!

REGISTER

- Visit the website for additional dates and locations.
- Learn about in-demand careers and the knowledge and skills students need to thrive in them. Meet with professionals in their workplaces. Learn about local companies and what they do.
- All ABC CREATE partner district teacher attendees will receive a \$40/hour stipend



# ABC CREATE L.E.A.D.S.

# UPCOMING OPPORTUNITIES

## COMMUNITIES + FAMILIES

### Summer STEAM Camps Around New Kensington-Arnold

Convening 12+ New Kensington-Arnold community partners, ABC CREATE is collaborating to find ways to help learners of all ages realize they belong in a community that embraces CS/STEAM skills. Toward that goal, below is information about a STEAM camp ABC CREATE is co-planning as well as other opportunities.

### Mt. Calvary Missionary Baptist Church + ABC CREATE STEAM Camp

Mondays + Wednesdays

July 17th, 19th, 31st + August 2nd, 10am - 2pm

- Rising 1st through 6th graders will experience hands-on, playful activities, and projects that lay the foundation for learning computer science and STEAM skills.
- ABC CREATE is recruiting two educators to lead student activities.
- Contact Colleen (cms64@psu.edu) with interest.

### Other STEAM Opportunities

Visit the website to learn more about summer STEAM learning opportunities in the New Ken-Arnold area through Peoples Library, Sonward Youth, YMCA, Digital Foundry, Salvation Army and more.

LEARN MORE



## EXTENDING IMPACT

### CS4ALL PA Summit, Hosted by PaTTAN

June 14 & 15 @ Harrisburg, PA and online

*Moving Tech-Hesitant Elementary Educators to Inspired Teachers and Learners of Coding, Robotics, and Engineering*

LEARN MORE



- Kelsey Derringer, CodeJoy; Stacie Isenberg, ARIN IU 28; and Colleen Smith, ABC CREATE/Penn State New Kensington will showcase the successful PD model of scaffolded ABC CREATE L.E.A.D.S. experiences that is attracting and engaging tech-hesitant elementary educators to coding, CS, robotics, and engineering.

### ABC CREATE Leadership Team Retreat

Tuesday, June 27 - Full Day

- District leaders and designees are invited to join a conversation where we look to the future of ABC CREATE.
- More information will be shared via email soon.

SAVE THE DATE



# ABC CREATE L.E.A.D.S. IN THE NEWS

EDUCATION

## New Kensington-Arnold elementary students create robot pets, learn coding at Digital Foundry

BRIAN C. RITTMAYER | Thursday, May 4, 2023 1:24 p.m.



SHANE DUNLAP | TRIBUNE-REVIEW

Kailoni Avent, a fourth grader at Roy A. Hunt Elementary School, works on the connections to a robot pet she created during an eight-week STEM Explorers Club at the Digital Foundry in downtown New Kensington.



## New Kensington-Arnold elementary students create robot pets, learn coding at Digital Foundry

TribLIVE | May 4, 2023

“I like working with robots,” said Gabriel Fales, 10, of Arnold, whose robot was a chameleon. “I want to be an engineer that works on robots. This is an early start for me.” Gabriel was among 21 students taking part in the STEM Explorers Club, a free after-school program exposing them to science, technology, engineering and math. The first-time program was started and funded by the [R&D Impact Foundation](#), which partnered with [ABC Create](#) and the [Digital Foundry](#).



READ STORY



## Burrell educators work to improve students' learning experiences

TRIB LIVE KELLEN STEPLER | Thursday, May 4, 2023 11:01 a.m.



TRIBUNE-REVIEW

The Burrell School District is remodeling its curriculum for 12th graders.

## Burrell educators work to improve students' learning experiences

TribLIVE | May 4, 2023

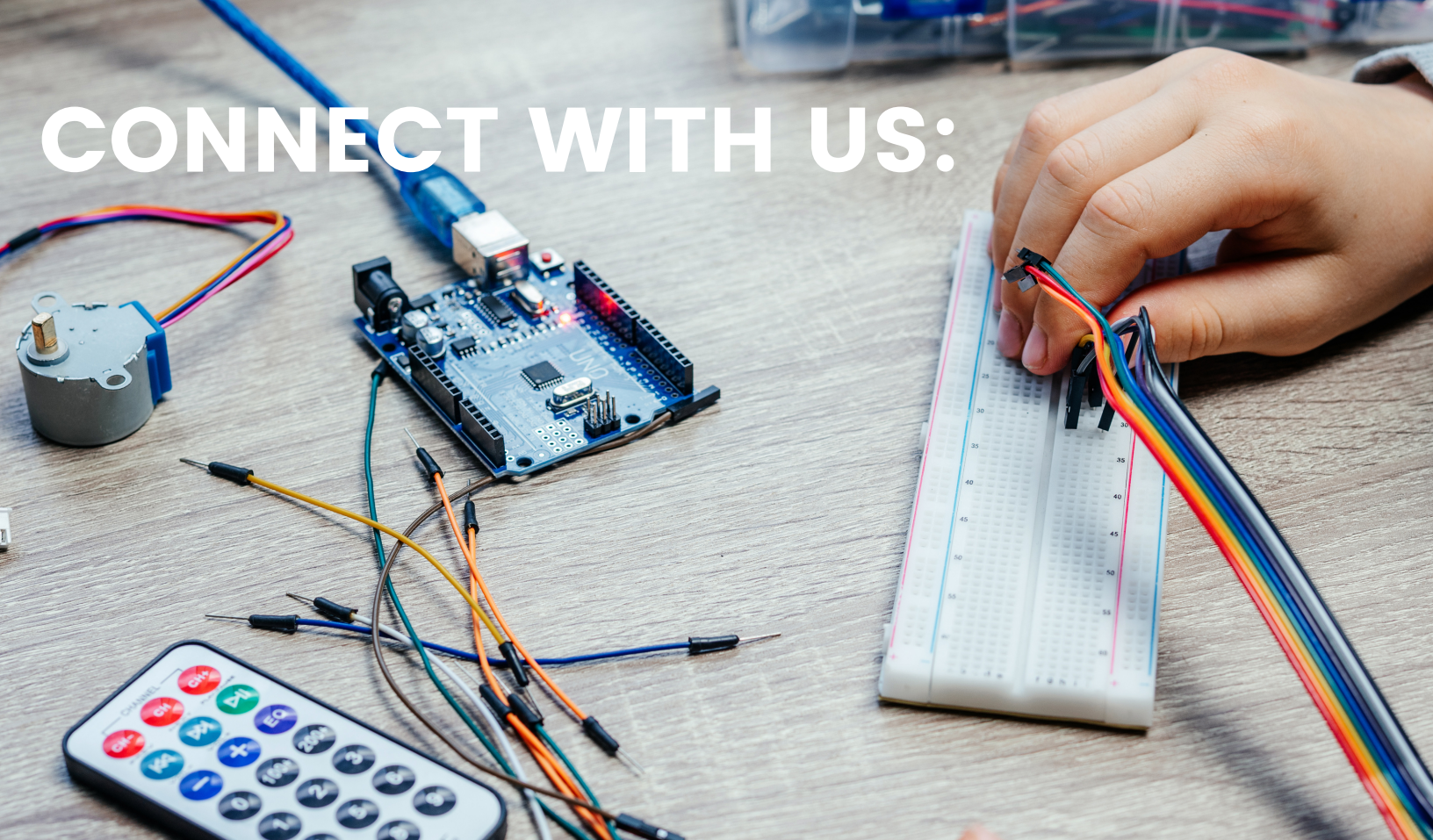
Burrell aims to start the voluntary program for seniors next year, Kulick said. Participating students won't have a traditional schedule, but they will have the “flexibility to be out and in the field, and the ability to do work they need to do on campus,” she said. Next year’s senior class is projected to have about 130 students, Kulick said.



READ STORY



# CONNECT WITH US:



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ABC CREATE

**L.E.A.D.S.**

LEVERAGING EDUCATION  
to ACCELERATE DIVERSITY  
and SUCCESS

