



Business and Education Committee Educator Resources For:

- K-4 Career Awareness
- Grades 5-12 Career Exploration
- Strengthening Career Pathways (Work-Based Learning Opportunities)
 - Community Connections (Solving Mutual Problems)
- Move on When Reading Initiatives (3rd Grade Reading Progress Meter Goals)
 - Algebra Readiness by 8th Grade (8th Grade Math Progress Meter Goals)



PINAL COUNTY

K-4 Career Awareness



Fab Lab Traveling Maker Space

With the announcement of Advanced Technology and Manufacturing industries locating to Pinal County, there will be a need for prepared students to fill over 8,000 advanced manufacturing jobs. The Pinal County ESA is helping establish a pipeline of K-12 students prepared to meet the workforce demands. With many schools making cutbacks in resources, the PCSOESA has acquired resources and developed a traveling Fabrication Lab. Schools and community centers may check out the Lab Equipment for Maker Events. Our staff will provide training on the equipment and help align projects to educational learning targets. Equipment includes:

- MakerBot 3D Printers
- Laser Etcher/Engraver
- Vinyl Cutter
- VR Tour Creator
- Mobile App Development
- Computerized Embroidery Machine
- Drones
- 20 HP Laptops (Mobile Lab)

Contact Info:

Rachelle Adey – <u>radey@pinalesa.org</u> Link to Fab Lab Brochure

K-4 Career Awareness



Giving students the chance to dream, design and build something better for the next century.

With Above and Beyond, Iridescent's Curiosity Machine, PBS LearningMedia, Teaching Channel. Learn more >>



STEM activities for curious families and classrooms

Technovation Families' free design challenges explore a range of science, technology, and engineering topics through fun, hands-on activities that promote creativity and problem-solving to find unique solutions.

Learn from the scientists and engineers who are creating the technologies of tomorrow, and use what you learn to build your own invention!



Contact Info: Contact Us Link to <u>Challenges</u>

Boeing Design Challenges

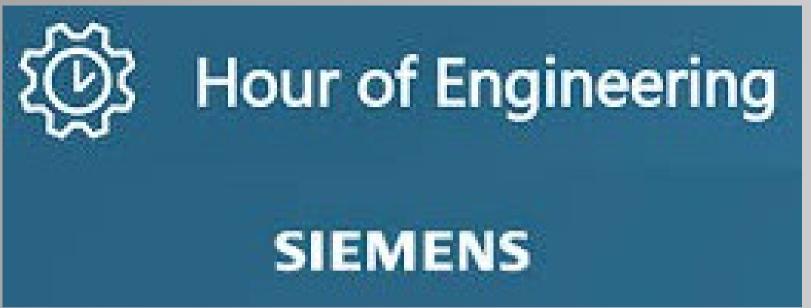
With a century of innovation under our belt, Boeing is committed to inspiring and preparing the next generation of innovators. We're harnessing the natural curiosity of young people through investments, partnerships and volunteerism to show them how science and engineering can help solve realworld problems.

These free design challenges explore a range of science, technology, and engineering topics through fun, hands-on activities that promote creativity and problem-solving to find unique solutions.

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K-4 Career Awareness





Contact Info:

Ryan Novitski - ryan.novitski@siemens.com Link to Resource Page

learn how.

Siemens – Hour of Engineering

Engineering helps shape the world we live in. Discover the amazing world of

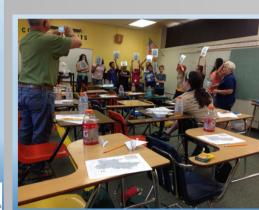
- engineering. Explore the learning
- modules and try engineering design to



Health Care Camp Hosted by Banner Casa Grande Medical Center

and Sun Life Family **Health Center**





Agri-Camp Hosted by Caywood Farms





Pharm Camp Hosted by the University of Arizona College of Pharmacv



Camp WIN





Now Hosted by the Casa Grande Police Department



Veterinary Care Camp sponsored by Casa Grande Animal Hospital

CASA GRANDE Animal H&spital

Contact Info:

Stephanie Sander - <u>stephanie.sander@cgesd.org</u> Link to Career Camp Outline : CGESD Career Camp Outline.pdf Link to Career Camp Presentation: Pinal County Biz-Ed Summit CCGESD Career Camp.ppt

Summer Middle School Career Camps

The Casa Grande Elementary School District (CGESD), in partnership with the Arizona Business & Education Coalition (ABEC), the Greater Casa Grande Chamber of Commerce, and its business and community partners are joining together to provide an exciting and meaningful opportunity to influence the lives of middle school students and raise awareness for the aspects of future careers. The Career Camps assist middle school students in their transition to high school and beyond by bridging the gap between rigorous academics and its relevancy to real working environments.

The Career Camps curriculum has five simple goals:

- career choices and pathways
- aptitudes
- career choices
- education.

• Expose middle school students to the day-to-day aspects of a variety of

• Help students become aware of individual career interests, abilities and

Enable students to connect coursework to their future education and

• Engage parents in the career exploration process; and • Help prepare middle school students for the transition into secondary

WORLD'S OF WORK CAREERERERE





Education & Training



Energy & Utilities

LEARN MORE



Engineering & Environment Sciences

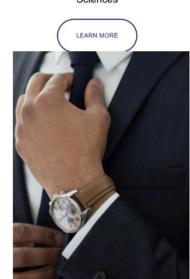


Hospitality & Tourism

LEARN MORE



Manufacturing, Automotive, Logistics



Professional & Personal Services

& Transportation

Contact Info:

Patti King – pking@pinalalliance.org Link to Career Expo Site: https://www.pinalcountyworldsofwork.com/

Career Expo: Pinal County Worlds of Work

Career Expo is a free resource, accessible to all, offering information about careers in Pinal County. The website offers a career exploration experience with professionals in a variety of careers. Career fields have been identified in partnership with ARIZONA@WORK. Some of the highlighted careers include: Robotics, Education, Public Safety, Trades, Medical, Agriculture, Engineering, Cyber Security, Veterinary, Utilities, Advanced Manufacturing/Technology, Finance, Hospitality.

Careers showcased on the website will continually be updated to reflect the dynamic changes occurring in Pinal County. New and exciting careers are coming to the region and employers are seeking qualified workers. In addition to new employers, longstanding Pinal County employers are experiencing ever changing work environments and their careers will be highlighted here as well.

J.O. Combs Unified School District Announces Annual Mock Interview Event

Education · SanTanValley.com · Sunday, 21 January 2024



Contact Info:

John Scrogham - jscrogham@jocombs.org Link to Event Description Article

Mock Interviews

The mock interview event is a cornerstone in the J.O. Comb's Unified School District's commitment to student development, has been instrumental in providing high school students with real-world experience in job interviews. It's an essential part of their learning journey, especially for those enrolled in Career and Technical Education (CTE) programs.

refine their job-seeking skills. What to Expect as a Volunteer guidance.

A Call to Action for Business and Education Leaders

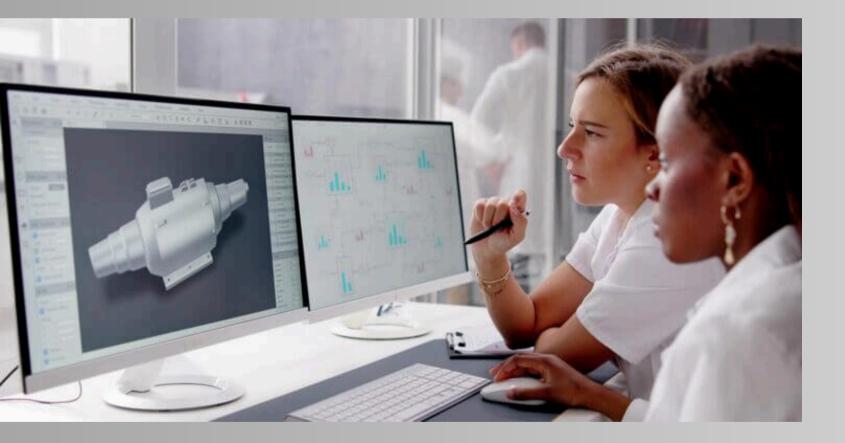
John Scrogham extends a warm invitation to business and education leaders to participate in this enriching program. The event relies heavily on the involvement of professionals who volunteer their time and expertise to conduct interviews. These interviews are not just a simulation; they are a crucial part of helping students develop and

Volunteers will have the opportunity to meet and interact with a diverse group of high school students. These students have not only honed their technical skills but have also been practicing essential job-seeking techniques. As a volunteer, you will conduct interviews with a new student every 25 minutes, providing them with valuable feedback and



Siemens - Solid Edge Learning **Resources for Educators**

Siemens Digital Industries Software is committed to empowering the next generation of digital talent with the engineering design skills employers need by providing problembased curriculum, industry-leading software, training resources and industry certification.



Contact Info:

Ryan Novitski - ryan.novitski@siemens.com Link to Resources



Lesson Plan



SCIENCE, TECHNOLOGY Space Ergonomics

Three 45-60 minute class periods

As new employees on Boeing's Human Factors Team, students are tasked with their very first project: a complete redesign of the International Space Station's fitness center. Students will begin by exploring the concept of ergonomics and the importance of exercise in space to redesign a fitness center that meets astronauts' needs in space.

Download Activity



SCIENCE, TECHNOLOGY Welding Opportunities

Three 45-60 minute class periods

Students imagine they are part of Boeing's Early Career Rotational Program and learn about the science behind welding, explore its uses across manufacturing and aerospace, and ultimately prepare a presentation that highlights this career path for a school job fair.

Download Activity



SCIENCE, TECHNOLOGY Mars Landing Three 45-60 minute class periods

As landing engineers in Boeing's Beyond Earth division, students are challenged with creating a landing system for the world's first crewed Martian-bound spacecraft. They will create and test their model to see how it would fare in deep space.

Download Activity

Use virtual experiences and hands-on, standards-aligned STEM lessons to guide students as they explore key concepts in aerospace and engineering. Aligned standards include the Next Generation Science Standards (NGSS), Common Core State Standards for Mathematics (CCSS: Math), and Common Core State Standards for English Language Arts (CCSS: ELA).

Contact Info: Link to Lesson Plans

Boeing Connections

ACHIEVEPINAL A PROJECT OF PINAL ALLIANCE FOR ECONOMIC GROWTH



Contact Info:

Patti King – pking@pinalalliance.org Link to sample program: CGUHS Careertopia Program 1.docx Link to Article

CareerTopia are regional career exploration events targeted to high school students for careers in that region. As part of the mission of <u>Achieve Pinal</u> in trying to reach high school students to better educate them about the job market & careers available. There are so many career choices available to them. We want them to understand what credentials or education is needed for in demand careers. They will be explained by professionals in the field that are doing it. This is accomplished by bringing in speakers from the different trades & sectors. For example, at Vista Grande High School the topics for the sessions will be, Advanced Manufacturing/Robotics, Cybersecurity, Trades, Utilities, Agriculture, Engineering, Hospitality and Medical. We have the data about the types of jobs that are needing to be filled and we work with the school to bring these career choices to the students.

CareerTopia



Contact Info:

Rachelle Adey – <u>radey@pinalesa.org</u> Link to Fab Lab Brochure

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Contact Info:

Mike Glover - <u>Mglover@cavitschools.org</u> Link to Information on Website

CAVIT Work-Based Learning Program

Internship

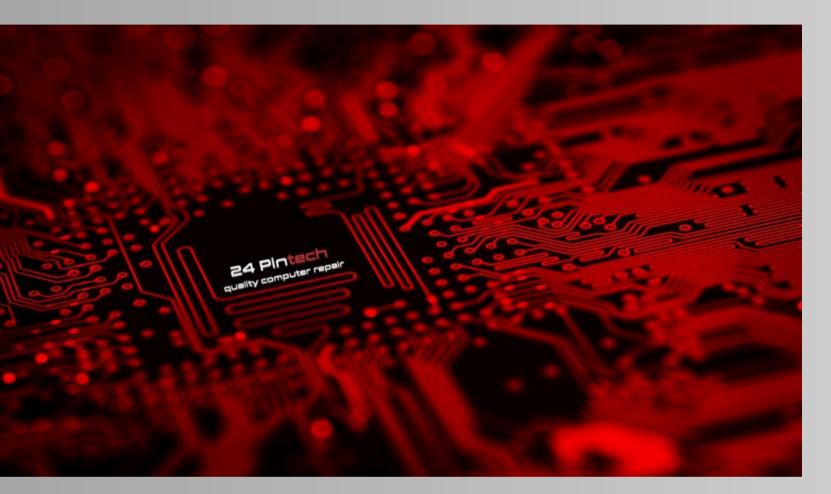
An internship is a highly structured, time-limited, career preparation activity in which students are placed at a worksite to participate in and observe work firsthand. Internships provide students with the opportunity to learn by doing real work and being productively engaged in the workplace. Students have the opportunity to work in teams, work on a project, or rotate through a number of departments and job functions.

Workplace Challenge

A Workplace Challenge is a career preparation activity where small groups of students are engaged in solving a real-world problem or a challenge issued by an employer. Students work as a team to identify possible solutions. Students then create and deliver a presentation on their solutions to the employer.

Workplace Tour

A Workplace Tour is a highly structured career awareness activity in which students visit a workplace, learn about the business, meet employees, ask questions, and observe work in progress. A Workplace Tour is designed and structured to meet specific learning outcomes, be educationally rich, and build awareness of the business, its industry sector, its role in the economy, and the career options it provides



Contact Info:

Brad Chamberlain: <u>bchamberlain@musd20.org</u> Link to Presentation

24PinTech (School Based Enterprises)

What is 24PinTech?

- Maricopa Unified School District
- We are a student ran IT support business that troubleshoots, monitors, and fixes personal, work, and school devices.
- We are responsible for over 450 systems in the CTE program.
- 24PinTech uses a ticketing system through HESK for customers to submit their work orders.
- Customers can submit work orders through our website or through our kiosk outside our classroom
- Our techs are all assigned teachers who are responsible for making sure their devices issued through us and their CTE devices are up and running to their fullest extent.





Contact Info:

Terence Pinkston: <u>terence.pinkston@cplc.org</u> Link to Presentation

FutureTech Pathways

- What: Free training & job placement program for high school seniors
- Includes: SACA training & certification
- quality job
- Collaboration: between a high-quality employer, Baltu Technologies, a high school, and CPLC

• Builds: skills for entry-level employment into high





Contact Info:

Arlynn Godinez: <u>arlynn@rebuildsuperioraz.org</u> Website: <u>https://www.superiorenterprisecenter.com/</u>

Superior Enterprise Center (Welding Apprentice Program)

As result of our partnership with Central Arizona College, Cobre Valley Institute of Technology, and Resolution Copper, our first cohort of students has completed and advanced to the next course. We have now expanded to 3 courses!

The Superior Enterprise Center offers hands-on welding training designed to equip individuals with real-world skills for in-demand careers. Whether you're just starting out or looking to upskill, our programs provide a strong foundation in welding techniques, safety practices, and job readiness. Led by experienced instructors and supported by local industry partners, this program is an opportunity to spark a new path in a high-demand trade—right here in Superior.





Contact Info:

email the library or call (520) 421-8710 Link to Website

Mayor's Reading Club

The Mayor's Reading Club is a unique partnership between the City of Casa Grande and the Casa Grande Elementary School District. Volunteers are scheduled to spend up to one hour each month reading in 2 to 4 classrooms on a specific day. Schedules and classroom assignments are coordinated by the Casa Grande Public Library. "Education is a key part of our City Council's Strategic Plan and encouraging students to read through the Mayor's Reading Club is one way we can work toward our education goals," said Mayor Craig McFarland. "The more our young students read, the more successful they'll be in school and beyond."



Contact Info:

Dr. Richard Ramos - rramos@miamiusd40.org Link to<u>Article</u>

Business Partner Café

Miami Unified School District holds Quarterly "Business Partner Café" meetings at their local high school. These meetings are a way to engage community business and organizations in the success of the students, by sharing both challenges and successes. The school host shares the district's Vision and mission as well as goals the school is working on and the challenges that may be roadblocks. The group with table facilitators brainstorm ways the community can help in achieving the goals. Strategies are then taken back to the school to implement. Students are also part of these meetings when showcasing successes toward the school vision. They use the platform to communicate all the good progress and programs that are helping achieve the school's goals. They can then ask the community for help if needed. These are lunch meetings that are prepared by the High School Culinary Arts program. These meetings have become a great success story. For more information on how to start these meetings or something similar, please reach out to the contact listed.



Contact Info:

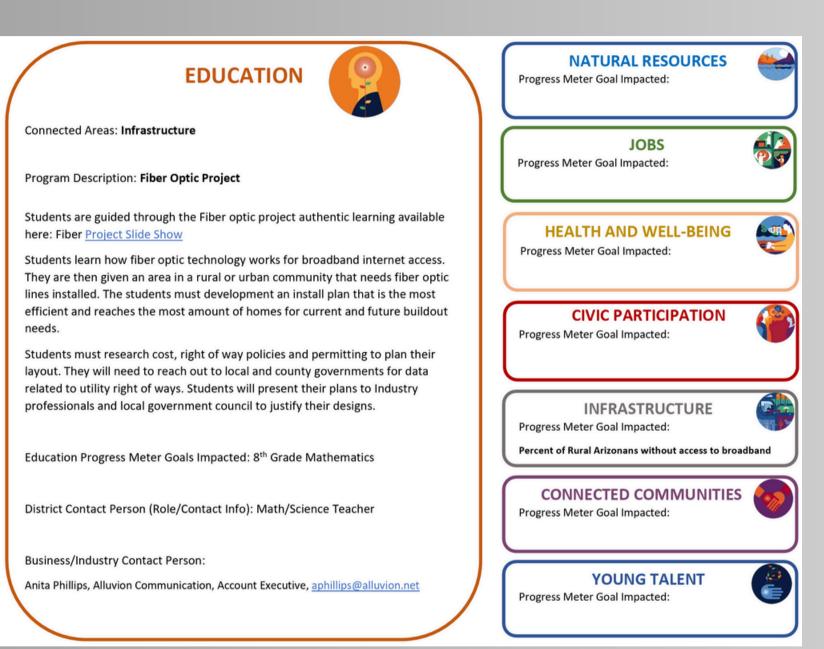
Deepika Padmavati - <u>Deepika.Padmavati@azflse.org</u> Link to <u>Project Curriculum</u>

Kids Vote (Civic Participation)

Connected Areas: Civic Participation/Service Learning Program Description: Kids Voting Arizona/Kids Voting USA This project can be run K-12. Sample curricula available @ kidsvoting.usa.org. Teachers can register online to become an approved educator to gain access to Double Click Democracy online ballot system as well as other resources aimed at civic participation.

K-2: Elections and Voting3-5: Democracy and The People6-8: The Right To Vote9-12: Civic Engagement/Service Learning

Education Progress Meter Goals Impacted: <u>Civic Participation</u>: Arizonans are informed, equipped and empowered to participate in our democracy at all levels.



Contact Info:

Joel Villegas – jvillegas@pinalesa.org Link to Project Curriculum

Fiber Optic Project (Infrastructure)

<u>Connected Areas:</u> Infrastructure <u>Program Description:</u> Fiber Optic Project

Students are guided through the Fiber optic project authentic learning using the Fiber Optic Slideshow. Students learn how fiber optic technology works for broadband internet access. They are then given an area in a rural or urban community that needs fiber optic lines installed. The students must develop an installation plan that is the most efficient and reaches the most number of homes for current and future buildout needs.

Students must research cost, right of way policies and permitting to plan their layout. They will need to reach out to local and county governments for data related to utility right of ways. Students will present their plans to Industry professionals and local government council to justify their designs.



Connected Areas: Natural Resources (Water)

Program Description: Home Water Audit

This project can be run in 5th-8th grades. The teacher launches this project by reading and having a classroom discussion on the January 5, 2020 Pinal Central article Advocate: Arizona Needs to Cut Water Use by 18%.

The teacher then uses the Home Water Audit curriculum from Project WET. Students will take home the Home Audit Data sheets and collect data on family water use at home. They then do calculations to find out the total daily use by adding up all the per household member usage. Students then determine how their family can contribute to the goal of reducing usage by 18%.

There is a lot of math problem solving and application in this project. Students must think critically to determine how to reduce total by a percentage. This requires proportional thinking and use of ratios. This is a critical focus area in mathematics understanding that helps students to be prepared for high school algebra.

Students then create a persuasive letter to their parents with the findings and with a plan for reducing home water usage.

Education Progress Meter Goals Impacted:

8th Grade Math - Percentage of eight grade students who are prepared to be successful in high school math.

District Contact Person (Role/Contact Info):

eg. Teacher, Math Department Chair, Principal, Curriculum Director, etc.

Business/Industry Contact Person:

eg. City Public Works, Arizona Water Company, CAP, Project WET



Contact Info:

Joel Villegas – jvillegas@pinalesa.org Link to Project Curriculum

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CENTER FOR THE FUTURE OF ARIZONA



Contact Info:

KaRa Lyn Thrasher - civichealth@arizonafuture.org Link to Informational Video Link to Website

School Participatory Budgeting

SPB in Arizona is an innovative civic learning tool designed to improve student agency, collaboration and critical-thinking skills and prepare young people to be active, informed, and engaged participants in civic life for the long-term. Students "learn democracy by doing" through a process of participating in SPB steering committees on campus, developing proposals, and voting to fund improvement projects that build stronger school communities.

The school model stems from the widely adopted municipal Participatory Budgeting (PB) model - a democratic process in which community members decide how to spend a portion of the public budget.

CFA provides training and support to our partners to implement a year-long process, led by students working alongside their educators and the community. Students work together through a process of curating ideas, developing proposals, and participating in a campus-wide vote that educates students on real electoral processes.



Contact Info:

Tiffany Massie: tmassie@redrockschools.com Link to Presentation

Corsi-Rosenthal Boxes Project

In early Fall of 2022, approximately 25% of our student population (124/472 students) at Red Rock Elementary School were marked absent for 3 days in a row. Parents were reporting cases of coronavirus disease (COVID), respiratory syncytial virus (RSV), hand foot and mouth disease (HFMD), and influenza (Flu), among other illnesses. It became our mission to improve the indoor air quality around campus, in an effort to reduce the spread of viruses among our students and staff therefore reducing the amount of absences.

The Corsi–Rosenthal Box is a design for a do-it-yourself air purifier that can be built comparatively inexpensively (Less than \$100), compared to commercial devices that preform similarly. A Corsi-Rosenthal Box consists of four MERV 13 or higher rated air filters that form a cube and uses a box fan to draw air through the filters, which are sealed with duct tape.

A multi-pronged initiative:

- Solving problems in our community.
- Exploring careers in the STEM field.
- Building community collaborations.
- Integrating educational standards with real world applications

Move on When Reading Initiatives (3rd Grade Reading Progress Meter Goals)



AARP Experience Corp Volunteer Reading Program

AARP Foundation Experience Corps is an intergenerational volunteerbased tutoring program that is proven to help children who aren't reading at grade level become great readers by the end of third grade. We inspire and empower adults 50 and older to serve in their community and disrupt the cycle of poverty by making a lasting difference in the lives of America's most vulnerable children.

The Experience Corps model is a proven intervention with measurable benefits for students, as well as positive mental and physical health benefits for volunteers who participate. By helping young students become better readers, Experience Corps seeks to ensure a legacy of strong futures, supported schools and empowered volunteers.

Achieve Pinal Experience Corps serves the Casa Grande Elementary School District, Stanfield Elementary School District, Coolidge Elementary School District, and Eloy Elementary School District and is supported by the City of Casa Grande, the City of Coolidge, City of Eloy, Pinal County and Pinal Alliance for Economic Growth, through our Achieve Pinal committee.



Contact Info:

Mike Bonafilia – <u>Mike@achievepinal.org</u> Link to Program Site: <u>https://www.achievepinal.org/aarpprogram</u>

Move on When Reading Initiatives (3rd Grade Reading Progress Meter Goals)





Contact Info:

email the library or call (520) 421-8710 Link to Website

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Algebra Readiness by 8th Grade (8th Grade Math Progress Meter Goals)

EDUCATION



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