



# SUMMARY

## CSO Capitol Summit with AZ Governor's Office of Education

October 28, 2016 | 10:00-3:00p  
State Capitol in Phoenix, Arizona

Arizona SciTech Chief Science Officers (CSOs) from across the state spent the day at the Arizona State Capitol for the program's first annual CSO Capitol Summit. Hosted by the AZ Governor's Office of Education, this **unique event** afforded CSOs the opportunity to experience local government in action! The day was energy filled and CSOs enjoyed working in teams at such a prestigious location. Over 190 CSOs convened as a collective cabinet, collaborated with experts in the legislative process to learn how to advocate for their passions, and put ideas into action by making a pitch to Governor Doug Ducey. "It was a fun experience and seeing how a bill becomes law was pretty cool." [CSO Devin at Holbrook High](#)

The Summit started with a welcome from Governor's Office of Education followed by legislative overview panel with Arizona State Rep Heather Carter, Flinn Foundation's Nancy Welch, Congressman Grijalva's Office, Jennifer Papworth and AZ Technology Council's Dianne McAllister. Then CSOs created teams and convened to create the following topics:

### STEM Education

**-We want to make STEM education better in Arizona by incorporating field trips through industry partnerships according to lesson plans!**

**-We can make STEM education better in Arizona by creating an idea sharing platform for schools!**

### Environment and Lifestyle

**-We want to make Arizona better by encouraging homeowners to practice xeriscape and covering their pools!**

**-We want to make life better in Arizona by reducing poverty by personalizing and creating more educational opportunities!**



### Social and Human Issues

**-We want to make life better in Arizona by improving personal safety in our communities!**

### Student Voice in Government

**-We want to make Arizona Education better by getting student voices heard:**

**Student Board of Education!**

**-"Viral Voices" in STEM!**

With the help of their CSO facilitators, Jedi mentors, and legislative coaches and teachers CSOs went through three sessions prior to pitching their ideas to Governor Doug Ducey. CSOs worked collectively in progressions to:

1. Formulate ideas and come to consensus on what is the most important idea
2. Solidify their ideas into a proposal by including why it is needed, who it impacts, cost and opposition analysis
3. Prepare to present – video practice presentation and letter writing

### Notes

- Event Documentation – pictures, videos and blogs can be found online at these locations:  
<http://chiefscienceofficers.org/cso-capitol-summit-2016/>  
<http://education.azgovernor.gov/edu/newsroom/photos/az-chief-science-officers-capitol-summit-2016#/0>
- Curriculum Structured from [ADE Workplace Employability Skills](#)
- Appendix 1 – CSO moderator questions for Rep Heather Carter
- Appendix 2 – Sample CSO letters to the Governor



## Chief Science Officer Capitol Summit - Programming



**Welcome and Legislative Panel** The CSO Capitol Summit kicked off with a greeting from Dawn Wallace, Senior Advisor for the Governor for Education and Strategic Initiatives. CSO moderators asked questions to the legislative panel. CSOs learned about their role in the law-making process

### Session 1 Ideation

CSOs teamed based on topics of interest. CSOs brainstormed on actionable ideas

that will make life better in our state. Their proposals were further strengthened with the help of local legislative coaches. CSOs learned about their civic action responsibilities and were exposed to STEM careers in government.



### Session 2 Proposal

CSOs continued to work in their collective action to further their ideas into a final

proposal. With the help of the legislative coaches, CSOs worked together to strengthen their concepts and justifications. CSOs received first-hand experience of how to make their ideas law ready.



### Session 3 Preparation

CSO teams reconvene to prepare to “wow” the Governor. CSOs teamed to work on the presentation, video, and

write letters. Local media specialists and lobbyists coached CSOs on how to sell their ideas honestly and persuasively. CSOs realized how Individual voices can become more powerful when combined collectively



### Present Proposal - Pitch to Governor Doug Ducey

CSOs met Governor Doug Ducey! CSO presented their team proposals and received feedback from Governor Ducey. All teams took a picture with the Governor and received a participation certificate signed by Governor Dr. Babendure! CSOs learned that their student voice matters and adults want to hear what they have to say!



## Chief Science Officer Capitol Summit - Proposals

### AZ STEM Education Issues

CSO Facilitator: Sage, Centerra Mirage STEM Academy

Adult Facilitator: Bruce Jones, Mesa Public Schools

***We want to make STEM education better in Arizona by incorporating field trips through industry partnerships according to lesson plans!***



#### Why is it needed?

- One field trip for each unit you learn in school
- Helps kids apply things they learn in school to the real world
- Gives students a taste of their future - sets them on a career track
- Starts from each individual school district and expands throughout state

#### Who gets impacted?

- The primary people getting impacted are students from 6<sup>th</sup> – 12<sup>th</sup> grade
- Field trips are dependent according to grade level
- Companies (STEM-related)
- Companies/businesses get advertisement through partnerships with schools
- Teachers/advisor will have a different way to teach

#### Cost

- It might cost a lot for companies to invest in many field trips for a lot of schools
- We can hold fundraisers, request funding from partnerships, sponsorships in advertisements

#### Opposition

- Teachers don't want to give up class time  
Solution: incorporate field trips with lesson plans
- Lack of student interest  
Solution: hands-on, interactive activities
- School districts might not want it because it interferes with core-curriculum values  
Solution: the field trips connect the curriculum to real life, developing a better understanding of the concept in students

#### Next Steps

- **CSO Sage and team has written a fact sheet for the White House to consider the AZ Technology Field Trip day! He has over 25 companies signed up to do so.**



## Chief Science Officer Capitol Summit - Proposals

### AZ STEM Education Issues

CSO Facilitator: Jared, Mountain Ridge High School

Adult Facilitator: Bruce Jones, Mesa Public Schools

***We can make STEM education better in Arizona by creating an idea sharing platform for schools!***

#### Why is it Needed?

- Provides equal opportunity
- School communication
- Happiness of students
- Better workers for the future
- Make people want to stay in AZ (college/career ready)

#### Who gets impacted?

- Students
- Workers-Job opportunities
- Schools without resources

#### Cost

- Nonprofit funding -Seed money
- Low impact on tax payers

#### Opposition

- Is something already existing?
- Participation?
- Mandates?
- Training teachers?
- Will it expand?

#### Start up plans

- Work with STEM Network, but they don't have teacher to teacher interaction
- Make funding go better through co-ops
- Study participation and grad rates
- Track interest, add video
- Incentives: test scores, better programs, share ideas
- 5 year study and keep it running tracking systems
- Online presentation/video, help center





## Chief Science Officer Capitol Summit - Proposals

### Arizona Environment & Lifestyle

CSO Facilitator: Calvin, Sequoia School

Adult Facilitator: Colleen Howard, Mesa Public Schools

***We want to make Arizona environment and landscape better by encouraging homeowners to practice xeriscape and covering their pools!***

Why is it needed?

- Water and Energy conservation
- Less money
- Less wildlife in pools
- Less danger
- Yards: less maintenance
- Conserving/preserving desert

Who gets impacted?

- Homeowners
- Landscapers
- Farmers
- Ranchers

Cost

- AstroTurf: \$5 - \$25 per square
- Less expensive: rock, gravel, soil (gravel \$30/ton + transportation and labor)
- Pay for covers (H.O.H.)
- Fine for not covering pools
- Any current pools need to buy pool covers

Opposition

- Farmer/rancher might not grow plants/animals
- People want privacy
- Xeriscape: want to play sports
- Might not look good
- Owners might not want to put money into pool covers





## Chief Science Officer Capitol Summit - Proposals

### Arizona Environment & Lifestyle

CSO Facilitator: Angie, Alhambra High School

Adult Facilitator: Colleen Howard, Mesa Public Schools

***We want to make life better in Arizona by reducing poverty by personalizing education and creating more educational opportunities!***

Why is it Needed?

- Educational opportunities train people for many types of work fields
- Better economy and decreased violence
- Higher literacy rate
- More high school and college graduates
- More jobs – higher pay

Cost

- Teachers
- Supplies
- Classrooms
- Experts
- Certifications
- Building Cost and Utilities

Opposition

- Cost- time and money for smaller classrooms
- May need to increase taxes to support
- Teacher Shortage





## Chief Science Officer Capitol Summit - Proposals

### Social and Human Issues

CSO Facilitator: Dana, Sandra Day O'Conner High School

CSO Facilitator: Alexis, Williams Field High School

Adult Facilitator: Denise Hicks, Avondale Elementary District

***We want to make life better in Arizona by improving personal safety in our communities!***

Why is it needed?

- Increased driving and personal safety
  - Moving signs – draws attention
  - Lower speed limits
  - Stopping at crosswalks
- Increased neighborhood safety
  - Watch-groups
  - More cameras/monitors
  - Panic buttons

Who gets impacted?

- Everyone in the communities

Start up plan

- Implement CSO created panic buttons = P.A.S.S. "Personal assistance security system"
- Escorts: community/trained dogs
- App/call boxes: surveillance
- Neighborhoods/parks
- Volunteers/donations
- Security grants: \$
- Programs for driving safety
- Write letters to Governor Ducey





## Chief Science Officer Capitol Summit - Proposals

### Student Voice in Government

CSO Facilitator: Dhruv, Hamilton High School

Adult Facilitator: Cindy Wiste, Pendergast District

***We want to make Arizona Education better by getting student voices heard:  
Student Board of Education!***

Why is it needed?

- Students are being affected by decisions made by legislators, we should have a say in the education that we are getting.
- Students should be able to talk about what they want for them and their schools

Who gets impacted?

- Students in future generations

Cost

- Board of Ed costs: domain names
- App delivery system

Opposition

- Adults who don't think students are mature or responsible enough to make decisions

Start up plan

- Any student can participate in the process
- Board for school district
- Reps from district board go to state board (one person per district)
- One student (sitting non-voting member) to go to legislation to represent what the board talked about

Next Steps

- **CSO Dhruv and team are actively pursuing how to implement a student on the State board of education with the help of Arizona Technology Council legislative policy group**







## Chief Science Officer Capitol Summit - Proposals

### Student Voice in Government

CSO Facilitators: Macy, Franklin Jr High and Nic, Westwood High School  
Adult Facilitator: Cindy Wiste, Pendergast District

#### ***Viral Voices in STEM!***

Why is it needed?

- Students submit ideas/concerns to a student council
- Student council will use media marketing to draw attention to concerns/ideas (video)
- Students vote on ideas
- Ideas with most votes then will be addressed by Governor

Who gets impacted?

- All ages across Arizona

Costs

- Web domain
- Marketing tools
- Utility/labor costs
- Meeting location
- Volunteers
- Umbrella budget

Opposition

- Parents





## Chief Science Officer Capitol Summit - Participants

### 190 Chief Science Officers (CSOs) from the following Districts/Schools:

*The class of 2016-2017 has a total of 220 elected CSOs. These students are 6<sup>th</sup>-12<sup>th</sup> grade Arizona representing 120 public, private and charter schools.*

<b>Agua Fria</b>	Desert Edge High, Verrado High
<b>Avondale</b>	Avondale Middle, Centerra Mirage, Copper Trails, Desert Star, Desert Thunder, Michael Anderson Wildflower
<b>Buckeye</b>	Bales, Buckeye Elementary, Inca, Jasinski, Sundance, Westpark, Youngker High
<b>Casa Grande</b>	Casa Verde High, Villago Middle
<b>Cave Creek</b>	Sonoran Trails
<b>Chandler</b>	AZ College Prep, Basha High, Hamilton High, Knox Academy
<b>Charter</b>	Imagine Prep, Sonoran Science, SySTEM K-12
<b>Creighton</b>	W. T. Machan Elementary
<b>Deer Valley</b>	Barry Goldwater, Legend Springs, Mountain Ridge, Sandra Day O'Conner, Sierra Verde, Sonoran Foothills
<b>Dysart</b>	Canyon Ridge
<b>Gilbert</b>	Patterson
<b>Holbrook</b>	Holbrook High School
<b>Higley</b>	Bridges, Williams Field High
<b>Isaac</b>	Isaac Middle, Morris K Udall, Pueblo Del Sol
<b>Kyrene</b>	Akimel A-al, Altadena, Centennial, Del Pueblo, Kyrene Middle School
<b>Laveen</b>	Cheatham, Desert Meadows, Laveen, MC Cash, Rogers Ranch, Trailside Point, Vista DelSur
<b>Liberty</b>	Freedom
<b>Littleton</b>	Collier, Estrella Vista, Littleton, Tres Rios
<b>Madison</b>	Madison Prep
<b>Marana</b>	Coyote Trails
<b>Mesa Public</b>	Dobson High, Eisenhower, Entz, Franklin, Fremont, Highland Arts, Ishikawa, Kino, Mendoza, Mesa Academy, Red Mountain High, Skyline High, Stevenson, Westwood High, Wilson
<b>Peoria</b>	Met Academy
<b>Pendergast</b>	Desert Horizon, Desert Mirage, Garden Lakes, Rio Vista, Sunset Ridge, Villa de Paz
<b>Phoenix EI</b>	Kenilworth School
<b>Phoenix Union</b>	Alhambra High
<b>Private</b>	Rancho Solano Prep
<b>Roosevelt</b>	CO Greenfield
<b>Saddle Mountain</b>	Tartesso Elementary School
<b>Show Low</b>	Sequoia School, Show Low Junior High
<b>Tolleson</b>	Arizona Desert, Desert Oasis, P. H. Gonzales, Sheely Farms, University High
<b>Washington</b>	Orangewood



## Chief Science Officer Capitol Summit - Participants

### 26 Legislative Coaches:

*Supported CSO teams through the process of ideation, initiative development, and pitch preparation. Change Advocates, Legislators, Legislative Staffers, Lobbyists, and Media Specialists were recruited to answer student questions and offer insight as to what questions or road bumps their initiative might come across during the legislative process. They shared real-world examples related to student initiatives, personal experiences, and suggestions to focus a broader initiative into a more digestible/concrete proposal; they also helped students avoid categorizing of people or ideas into political parties and avoid propagating political stereotypes.*

Session 1	Session 2	Session 3
<p>Arizona State Rep. Heather Carter</p> <p>Arizona Technology Council Dianne McCallister</p> <p>Arizona Commerce Authority: Jamie L. Hogue Michael Kellis Brent Brooks Jason Tadano</p> <p>Chicanos Por La Causa Carmen Cornejo</p> <p>State Farm Gus Miranda</p>	<p>Arizona State Rep. Heather Carter</p> <p>Senate Majority Policy Advisor on Ed Matt Simon</p> <p>Senate Ed Research Catcher Baden</p> <p>House Majority Policy Advisor Health Ryan Sullivan</p> <p>House Assistant Research Analyst Michael Hans</p> <p>House Education Research Aaron Wonders</p> <p>House Research Paul Benny</p> <p>Legislative Council: Todd Bayne Nadine Sapien</p> <p>Lobbyist Helena Whitney</p>	<p>AZ Central Credit Union Robin LeMarr and Crystal Kolosick</p> <p>Arizona Commerce Authority Chip Scutari</p> <p>AZ Health Services Holly Ward</p> <p>Governor's Director of Communications Daniel Ruiz</p> <p>Lobbyists: Becky Hill Jessie Armendt Emily Ryan</p> <p>Veteran Political Reporter Howie Fischer</p>



## Chief Science Officer Capitol Summit – Participants

### **10 Jedi Mentors:**

*Community partners supported CSOs while they worked in teams to accomplish each session progression. They provided encouragement for all students to participate, helped to answer student questions, and offered insight from business or community partner perspectives on initiative impacts and stakeholders.*

**ASU Research Professor**

**Richard Toon**

**ASU Science is Fun**

**Jessica Hauer**

**Arizona Business and Education Coalition**

**Patrick Contrades**

**Arizona School Board Director**

**Tracy Benson**

**City of Scottsdale**

**Mike Philips**

**Congressman Grijalva's Office**

**Jennifer Papworth**

**Flinn Foundation Arizona Center for Civic Leadership VP**

**Nancy Welch**

**Intel and CSO Parent**

**Anna Prakash**

**Morrison Institute for Public Policy**

**William Hart**

**State Farm**

**Leann Steidinger**



## Chief Science Officer Capitol Summit – Appendix 1

### CSO Moderator Questions

1. *What led you to becoming an Arizona representative? (CSO [Emilio, Freedom Elementary](#))*
2. *As a 8<sup>th</sup> grader at Franklin Jr High, how is my voice heard within current policies?(CSO [Macy](#))*
3. *What makes Arizona a unique State to represent? (CSO Emilio, Freedom Elementary)*
4. *How do you see STEM education changing the face of today's traditional education platform? When would you anticipate seeing changes? (CSO [Riley, University High](#))*
5. *We are all advocating for more STEM programs in schools. While there is certainly an interest among students, many schools have had difficulty finding qualified teachers and sponsors for new STEM clubs and classes. How can we fix this and ensure that quality educators are instructing the next generation of STEM students? ([CSO Jared, Mountain Ridge High](#))*
6. *All levels of governments have shown increased eagerness to support STEM Education. What are some additional current obstructions that are blocking the progress of STEM Education and how can they be resolved by local, state, or national government? (CSO Jared, Mountain Ridge High)*
7. *In what ways will teaching citizens how to maintain a healthy lifestyle improve their life and others around them? (CSO [Angie, Alhambra High](#))*
8. *How will advanced medical technology affect citizens and employees of Arizona?(CSO Angie, Alhambra High)*
9. *As a community leader, what would you say is one thing that students should know about your role? (CSO Riley, University High)*



## Chief Science Officer Capitol Summit – Appendix 2

Samples of handwritten letters – delivered 11/12 to Governor Ducey

October 28, 2016  
Governor Doug Ducey  
Arizona State Capitol  
1700 West Washington Street  
Phoenix, AZ 85007

Dear Governor Ducey,

My name is Daniel, and I am a Chief Science Officer writing to you on behalf of Westwind School and the CSO Program. Today my group and I worked very hard to develop our proposal entitled STEAM Month with the hope of making life better in Arizona. Some of the key goals of our proposal are to involve students in STEM, hands on activities, and learning but still having fun. Implementation of our proposal would involve everybody, student, teachers, and industries and would affect parents and guardians, we would like you to consider our proposal as I believe it will improve life in Arizona by providing future jobs for this generation and will help solve environmental problems. Thank you for hosting us today at the state capital! I really enjoyed working with my fellow CSOs and the US officials.

Dear Governor Ducey,

My name is Elpin, I am a Chief Science Officer writing to you on the behalf of Colton Elementary School and the CSO program. Today my group and I worked very hard to develop our proposal entitled "STEM Field Trips through historical sites, we are hoping to make it better in Arizona. One of the key goals of our proposal are to encourage middle and high school students to get new ideas for the future, to show that learning can be fun and exciting and lastly to get students more involved with science and technology. Implementation of our proposal would involve the students, teachers, parents, employees and CEO of businesses that the students would attend to and would affect parents and the groups of people who would be involved in consider our proposal will better it will improve life in Arizona by providing future jobs for the future generations, and environmental problems would be resolved. Thank you for hosting us today at the State Capitol. I really enjoyed working with talented and smart people who work with the US government, and meeting other CSOs all over Arizona.

Sincerely,  
Elpin Castillo