Appendix A

Descriptions of Sessions at the CSO Leadership Training Institute

Canvas Online Learning System
Canvas is the online learning management tool for CSOs and teacher points of contact to stay connected with the program. CSOs explore basic navigation of the site, set up their profiles, participate in discussions, and view or send messages.

Collective Action: Design Thinking*
In teams, CSOs learn how to empathize with others, identify problems and opportunities, and iterate toward unique solutions. This process will give CSOs a theoretical foundation for developing and implementing their own ideas.

Collective Action: Digital Storyboarding*
CSOs pick their teams based on topic of interest, come to a consensus on what change is needed to make life in Arizona better, and develop a basic script. CSOs will then work with local experts on how to develop a storyboard and translate it into an enticing video. They will learn how to capture and edit video, animate, find online resources, and further develop their storyboard.

Collective Action: Entrepreneurial Traits*
CSOs learn about the foundational components of entrepreneurship and how innovators see and impact the world. CSOs then work in groups to solve a problem related to their collective action projects and discuss the importance of failing to succeed.

Collective Action: Initiative Development*
CSO teams give a report on their storyboard and receive guided feedback to further refine their plans.

Collective Action: Mission Docs*
Students create individual 90-day mission documents that articulate a specific, time-based "mission" that includes objectives and tasks to accomplish in the first 90 days. On the Canvas platform, CSOs will also begin a discussion designed to ensure their continued engagement during the academic year.

Collective Action: Pitch to Peers*
CSOs share concepts with their peers and work to enroll fellow CSOs in their collective opportunity **[What is the opportunity? Individual projects the CSOs have come up with? Or is this meant to be more general, increasing CSO engagement in the program itself?]**.

Collective Action: Presentation Prep*
Students continue to refine their project concepts, describing the expertise needed and next steps they'll need to take. CSOs will also capture this pitch on video.

Collective Action: Testing and Validation*

CSOs will present their ideas to STEM professionals and then refine their concepts based on the feedback they receive. This process of experimentation, data collection, and refinement is critical to understanding entrepreneurship and mirrors the Engineering Design Process.

CSO 101: What does it mean to be a CSO?
Second-year students demonstrate their understanding of the CSO brand and role of a Chief Science Officer by sharing experiences through skits.

CSO Vision
Students envision what it means to be a CSO by developing a personal statement. Through this experience, CSOs gain an understanding of the leadership, teamwork, ethics, self- reliance, judgment, respect, and sense of responsibility that it takes to be a CSO.

Digital Storytelling
CSOs create a digital profile to post on the CSO YouTube channel. Through this process, CSOs will practice communication skills.

Leadership and Team Building
CSOs participate in several hands-on, team-building activities that emphasize critical thinking, creativity, communication, collaboration, and inclusion. Sessions were designed using the Rising Tycoons leadership methodology (www.risingtycoons.com) to give students tangible steps to develop their "Success Backbone" ™.

Networking 101
With their peers and SciTech Jedi, CSOs practice professional interpersonal skills such as hand-shakes, appropriate eye contact, business card exchange, and introducing themselves.

On-Campus STEM Action Planning
CSOs will work to develop an Action Plan for what they intend to accomplish on campus. Through this work, CSOs will learn project management skills such as time management, relationship building, creating documentation, and evaluation. Second-year CSOs will share best practices and lessons learned from their first season.

STEM Careers
CSOs learn about STEM career pathways and what local colleges offer, and they interact with STEM professionals through keynotes, interactive panels, and informal interactions during the Institute.

STEM-Onstration Guided Practice and Showcase
CSOs practice their STEM communication skills by presenting brief STEM demonstrations, prepared prior to the Institute, to their peers and to community members and STEM professionals. CSOs are coached on how to inspire and excite others with their presentations. CSOs will then present to a broader audience of parents and community members as the Institute concludes.