



Ironwood Tree Experience

Youth. Nature. Community.

Our Mission:

To create healthy and resilient communities, Ironwood Tree Experience makes it possible for young people to engage with the natural world and be stewards of the environment.

Youth for Blue Skies: Spring 2022 Program Report



Made possible with funding and support from Pima Department of Environmental Quality



We acknowledge that these programs were held on the ancestral, traditional, and contemporary lands of the Tohono O'odham Peoples. Ironwood Tree Experience honors their presence and stewardship of these lands since time immemorial through experiences that connect youth with their desert community.

Program Overview

Youth for Blue Skies (YBS) is an environment and community-based internship program in partnership with Pima Department of Environmental Quality (PDEQ). The internship program finished successfully with 8 youth interns, ages 14-18, from 7 different schools.

Throughout the 16 workshops, youth interns explored climate change, air pollution, environmental justice, and ecology through experiences in our Sonoran Desert community. By actively engaging in environmental science, attending expert led workshops, exploring nature's lessons and sharing community stories, interns gained new skills, friendships and a unique behind the scenes look at the intersections of environmental quality and society.

In their capstone projects, interns formed three groups and creative community action projects. They submitted grants to Citizen Climate Lobby, and produced individual and group videos to capture their climate action project, their reflections, and their overall experience. They now are YBS mentors.

YEAR IN REVIEW

8 YBS interns, ages 14-18, spent 100+ hours participating in YBS programs between March 26 and June 7. They experienced 16 workshops, online learning sessions and field expeditions. Each intern received a \$400 stipend for their participation in the program.

YBS 2022 Calendar

March 26

Orientation & Tucson Mountains

March 27

Cyclovia

April 2

Dunbar Springs, UofA

April 12

Air Quality Workshop

April 15

Desert Research Learning Center

April 19

Mobility Justice Workshop

April 23-24

Campout in Molino Basin

May 3

City Council Session

May 7

Biosphere 2

May 10

Data Analysis Workshop

May 15

Wa:k Hikdan

May 17

Advocacy and Action Workshop

May 31

CCL Grant Work Time

June 3

Project Work Time

June 4

Video Filming

June 7

Final Debrief and Celebration

June-August

Individual 1-1 Meetings

Fall 2022

Fall Mentorship & Grants Begin

Community Partners & Workshop Leaders

Dunbar Springs Community Members; Elise Dillingham & Desert Research Learning Center Scientists; Anne Rempe & Arizona State School for the Deaf and the Blind students; Imena Ezell, US Forest Service; Lane Santa Cruz, Tucson Vice Mayor, and Antonio Ramirez, Ward 1; Dr. Joost van Haren at Biosphere 2; David Tenario, Assistant Supervisor of San Xavier District Natural Resources Department; Angel Breault with Tucson Clean & Beautiful; Dot Pallanes, ITE Alumni; Carolyn Campbell with Coalition for Sonoran Desert Protection; and 20 + community members (family, friends, teachers, neighbors, scientists) who were interviewed for the final projects.

YBS Interns



Destiny Shosieduran, 15 yrs.
-Tucson Intl. Academy

"Not only have we been able to connect to the places we visited but we have also been able to connect to the people that are part of those places or communities...I now push my family to drive less, and I use my bike more often."



Gabby Olm, 17 yrs.
-Tucson HS

"Throughout this internship program I have become more conscious of my and my households behaviors, or lack of, in individually trying to mitigate climate change. I've also learned more about my work habits and how to better balance responsibilities."



Jesus Mendoza-Villela, 15 yrs.
-University HS

"The experience I have had so far has made me more open minded and not afraid to say what I believe and it is exponentially getting rid of my public speaking fear."



Ali Soland, 17 yrs.
-City HS

"I've learned that I can't always push myself too far with work and responsibilities...Because of this program, I've started to check the air quality daily."



Araceli Romero, 18 yrs.
-Sahuarita HS

"I've learned that environmental engineering is the career I hope to pursue. This internship has helped inspire me to continue my education in environmental sciences and become an environmental engineer."



Janeth Cruz, 17 yrs.
-Desert Rose HS

"This program has helped me a lot with realizing how bad some things are and how it all ties to my mental health. I think this program was a lot of fun; the people are nice and just being outdoors and not being inside so much actually helped me feel better."



Samantha Miranda, 16 yrs.
-Sahuarita HS

"I have started noticing how much unnecessary space parking lots take up, I have started checking the air quality when I go outside, and I feel more aware of how my actions affect the environment."



Bianca Carnazza, 17 yrs.
-Rincon HS

"I've learned that I am an interesting person...This program impacted my life by really focusing on the weather patterns and the weather changing and it makes me acknowledge climate change more and inclement action."

Program Highlights

Climate Change & Air Pollution

Since the first day, interns experienced the intersections of health, identity and the environment. Interns navigated public transit throughout Tucson as they learned about how to minimize air pollution at Cyclovia, helping with the PDEQ booth. With workshops from Natalie Shepp, Eric Dhruv, & Lane Santa Cruz, interns explored environmental justice and climate change on the local, state and global level.



Interviewing Techniques & Desert Research Learning Center



Interns visited the NPS Sonoran Desert Network, Desert Research Learning Center to interview 6 anthropologists, biologists & archeologists about climate change, policy, anthropology, and traditional ecological knowledge. Interns went on to conduct more interviews with 1 or more community members. Valuing qualitative as well as quantitative data, interns incorporated the stories into their YBS narratives of climate change and climate action.

City Council Session & Workshop

Interns attended a City Council meeting to get familiar with City Council members and the process of local politics. The following weekend, interns met with Lane Santa Cruz, Vice Mayor of Tucson, and Antonio Ramirez, Ward 1 head of public transportation. The interns advocated for free public transportation. One of the interns took action by surveying 11 teens and then attended the next city council meeting on his own time to advocate for free public transit during public comments.



Program Highlights

Campout at Molino Basin

Following principles of peer-to-peer mentorship and emergent strategy, ITE staff provided structure while creating space for interns to self select into climate action teams. After design thinking and asset mapping their individual skills and interests, students selected their topics, teams, and began brainstorming their solutions for local climate change-related problems. Interns learned & improved upon their camping and outdoor skills, including tent set up, cooking outdoors, & culturally responsive Leave No Trace.



Learning with Locals about Climate Change, Action, and Hope



This internship is a deeply collaborative community effort with dozens of educators and mentors. Among others, interns learned with David Tenario of the Tohono O’odham Nation about the success of the Wa:k Hikdan, former ITE staff and student leaders about advocacy and action, Carolyn Campbell from Coalition for Sonoran Desert Protection about large-scale solutions, and educators and students at the AZ School of the Deaf and Blind about mobility justice.

Sustainability at Local & Large Scale

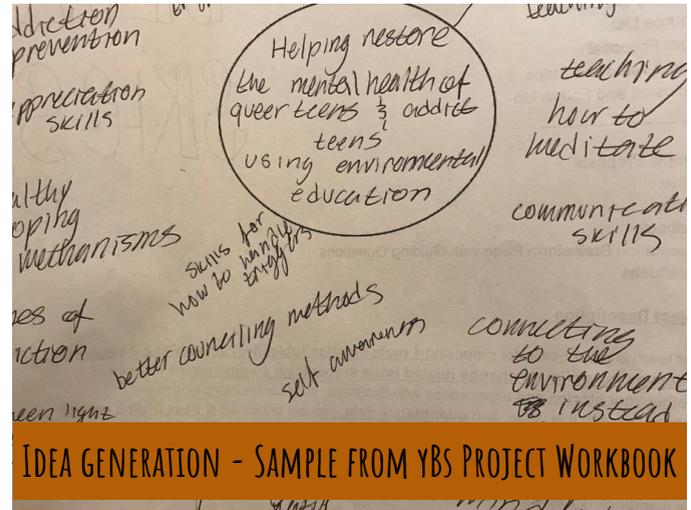
Comparing Dunbar Springs to University of Arizona CAPLA Underwood Garden to the Biosphere 2 to Wa:K Hikdan on the Tohono O’odham Nation, interns identified various sustainability techniques including rainwater harvesting, curb cuts, basins, closed-loop systems, educational centers, and visionary planning. Each place-based workshop focused on a different component of community and climate change while continuing the themes of environmental justice, adaptation, and innovation.



YBS Storytelling, Grant Writing & Presentations



CAMPING - DECIDING GROUPS



IDEA GENERATION - SAMPLE FROM YBS PROJECT WORKBOOK

Throughout the internship, interns worked in the YBS Workbook, a compilation of brainstorming, interviews, qualitative and quantitative data, research, and reflection to prepare for their final projects.

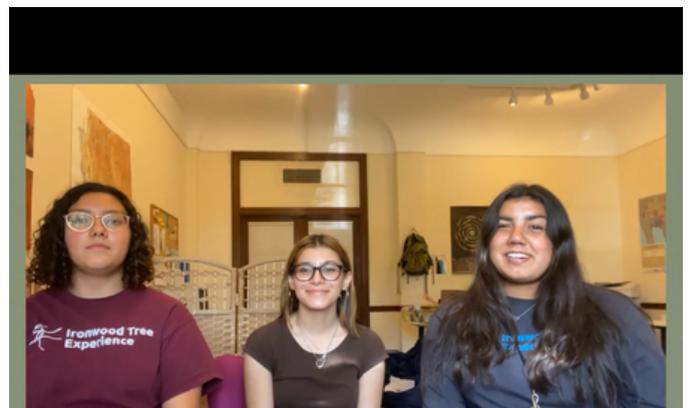
- Submit 2 page climate change proposal to Citizen Climate Lobby by June 1
- Create individual reflection videos
- Create group "pitch" video of climate action project
- Create final video showcasing each group member's voice, reflections & project

After brainstorming, drafting, writing and submitting 3 Citizen Climate Lobby youth grants, 2 groups were rewarded with their grant request to continue their community action projects.

Due to rising COVID levels, we changed our community symposium to a video series showcase. Interns each recorded a short video reflecting on the internship. Each group produced a 2-3 minute "pitch" of their climate action project and a 2-3 minute video of their experience as YBS interns and the creation of their local climate action project.



GATHERING RESEARCH TO CREATE PROPOSALS



VIDEO PRODUCTION - INDIVIDUAL AND GROUP FILMS

Citizen Climate Lobby Grants

Sustainable Communities: Sam, Gabby & Araceli- Awarded \$500



"Through the internship we visited Dunbar Springs and Wa:k Hikdan, both areas have become more sustainable in the last twenty years. These experiences inspired us and our project: to make a sustainable community space that integrates the environment....We aim to create a community space that mitigates climate change in a central Tucson neighborhood. First we will survey areas in ward 6, then with the help from volunteers and the help of Tucson Clean and Beautiful, we will plant native vegetation that benefits the community and the environment."

SUSTAINABLE COMMUNITIES: GRANT PROPOSAL

Air Pollution & Health Effects: Destiny & Jesus- Awarded \$600

"Air pollution affects everyone and every community, and low-income communities are no exception. Our vision is to create workshops where we educate and increase awareness of air pollution and climate change and how they impact low-income communities. We will educate the community about ways to reduce our carbon footprint and make our planet a better place."



AIR POLLUTION & HEALTH: GRANT PROPOSAL

Teen Mental Health & Nature: Jay, Bianca & Ali- Honorable Mention



TEEN MENTAL HEALTH & NATURE: GRANT PROPOSAL

"A big problem we see a lot in youth is mental health. As teens in our current society with a disconnect from nature, it causes shifts in our mental health. We're disconnected from something that we too are a part of. During this recent pandemic, all of us teens have been confined to our indoor classrooms and our bedrooms. However, we three are living proof that outdoor classrooms are genuinely helpful for mental health."

Youth Voice: Individual Reflection Videos



YBS students interviewed by KGUN9 at Cyclovia



Destiny and ITE Field Instructor Rebecca taking surface temperature

Intern Recorded Videos

Ali Soland: What Skills Have You Developed

Araceli Romero: Why Did You Join YBS?

Bianca Carnazza: What Skills Have You Developed?

Destiny Shosieduran: Why Did You Join YBS?

Gabby Olm: Urban Health Island Effect

Gabby Olm: Misinformation About Climate Change

Janeth Cruz: My Experience with Interviewing

Jesus Mendoza-Villela: Why Did You Join YBS?

Samantha Miranda: Air Quality & Health



Students at CAPLA Underwood Garden at UofA



Eric Dhruv leading climate change workshop

Youth-Led Climate Action Videos

Sustainable Community in Central Tucson

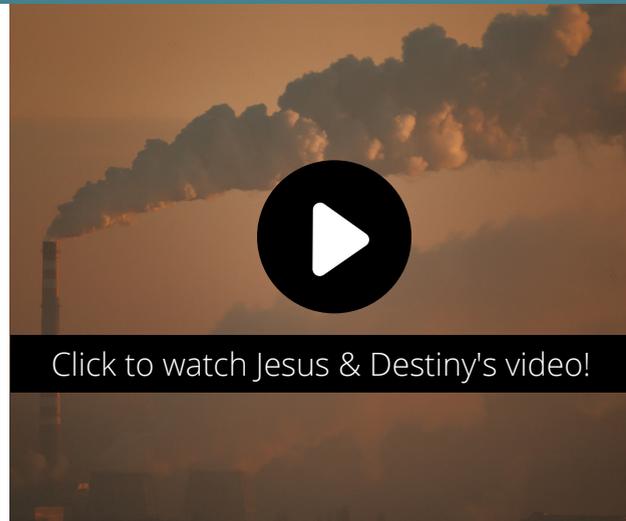


Inspired by the Wa:k Hikdan on the Tohono O'odham and Dunbar Springs, this group plans to create a sustainable community space in central Tucson. It will have water basins with native plants for pollinators. Their aim is to bring people together, educate the community about climate change solutions, and mitigate the heat island effect. The project will be student led with community involvement. In this project, we hope individuals are encouraged to educate their community and promote activism after completion of the project.

[Click to watch Sam, Araceli & Gabby's video](#)

The Impacts of Air Pollution on Low Income Communities

Our group proposes canvassing low-income neighborhoods in the city of Tucson. We will advertise and promote our project by using social media, creating a website, and making flyers to place throughout free public spaces such as libraries, stores, etc. We will have our own booth at Cyclovia to talk to a diverse group of people about air pollution. After we canvass, we will invite the neighborhoods together for a big discussion on Air pollution and how it affects the community by affecting our health and environment. We want to hear the community and help them empower take steps towards the issues in our community related to air pollution and climate change.



[Click to watch Jesus & Destiny's video!](#)

Nature Walks to Improve Teen Mental Health

[Click to watch Bianca, Jay & Ali's video!](#)



We are proposing the creation of 3 mental health workshop hikes for teens outdoors to teach different mental health tools and skills. These would be 6-8 hour hikes...we're using the idea of desert bathing walks to help not only connect our mentees to the Sonoran desert, but also get them more engaged with climate change, and teach them skills on how to handle daily mental health struggles. We want to help youth learn mental health skills through environmental education, for them to gain a more intense connection to the Sonoran environment along with getting them more involved with climate actions.

Life Lessons

How has the YBS Internship affected your everyday life?

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"Trying to completely air dry my clothes is one of the smaller ways I have changed my habits, I learned dryers are not only bad for the environment, but also for the clothes. My mom and I have been talking about is the heat island effect in our yard, and we are thinking of planting more trees/native plants throughout our backyard, so our dogs and us can be outside a little more comfortably through the summer."

- Gabby

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Intern contemplating saguaros in the Tucson Mountains



Interns and ITE Staff during campout

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"I want to be more involved with community activities and efforts involving climate change (i.e., attending Cyclovia, working/volunteering with Tucson Clean & Beautiful, etc.)! I am unsure about school or my future careers, but this internship has definitely opened my eyes to new opportunities". -Gabby

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I've started noticing how difficult and dangerous it would be to get around if i was relying solely on a bike. I've also started talking with my family about some of the things that i have learned from the internship and I've been getting them more interested in climate issues.

-Sam

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KGUN9 Interview at Cyclovia

Lessons Learned

How has the YBS Internship influenced your next steps?

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"My proposal is to have the public transportation be free for all teens between ages 13-18 because since we're in high school, we really don't have a job and we live with our parents who could be saving...for the needs that we need. To get data, I made a survey..."

-Jesus at City Council Meeting

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ITE Staff Kristen and Jesus on the bus



ITE Staff Rebecca explaining creosote uses

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I think my favorite day so far has been going to Dunbar Springs. It was really informative with history, environmentalism, and urban planning, but I also felt a sense of community being able to talk with the neighbors and how everyone came together for a common goal. - Gabby

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"My favorite moment in this internship was when we went to the camping trip and the morning we were preparing to leave the site after we packed everything up we practiced saying goodbye to the site. It was the second time I had been saying goodbye to that place but now I had made new memories and built new friendships, I got to envision the night before when we were doing the salsa challenge, or the moment where we had stopped to look at a beautiful white flower and in that moment I learned about how plants can easily be compared to a woman and her body. The moment that I was saying goodbye I was able to picture all of those moments where I learned and built new memories, that's why it's my favorite memory." -Destiny



Interns in their tent while camping

Evaluation & Next Steps

Feedback from the group indicates that YBS, though in its initial year, is a robust, dynamic, and life-changing program. However, student and staff feedback indicate the timeframe could be shifted. The focus of the program, though successful as an overview of climate change, air pollution and climate action, could become more specific in scope. Finally, interns want more time to work on their final projects throughout the whole internship. As this program changes with our second cohort, and the use of our first cohort mentors to guide peer-to-peer learning, we propose the following recommendations:



ITE Staff Rebecca and Kristen during KGUN9 Interview

Youth Recommendations

- Select groups earlier on to have more time to work on projects and brainstorm throughout internship
- Create videos and photos throughout internship to use at the end for final videos
- Have a symposium to share videos and reflections with the community
- End by mid-April (testing) so that interns aren't overwhelmed
- Host a networking night with community members to share ideas and projects
- Emphasize team building in the beginning with activities like camping

Advice for Next Year's YBS Cohort



- Don't worry too much about falling behind, you'll always get an opportunity in completing everything.
- Have fun!
- Try your best to open up with the other interns and don't be shy to share your thoughts and ideas with everyone.
- Just go with the flow and don't feel like you have to match with other people are doing you can do it in different ways.
- Really enjoy every day of the internship it will go by fast!
- My only advice is to take notes, pictures/videos, etc. from the beginning, it would've been very beneficial for the final presentation.
- Be patient with yourself and don't push too hard it's only going to tire you out. everything will work out in the end.