Appendix A. Description of Learning Activities

Weekly Theme	Daily Learning Activities	Description of Daily Learning Activities	Connection to Design Principles
Week 1: Connecting	Day 1: Community building and introduction to the program	• Community-building games (e.g., theater games, engineering challenge) • Introduction to the project driving question: What would you like your community to be like in 10 years? • Interest inventory on potential community-based issues to explore for the projects: education rights, food rights, green space rights, housing rights, natural resources rights, and transportation rights	• Principle 1: Privileging youths' voices through creating messages about local social and environmental justice issues. • Principle 2: Promoting choice in the focal issue and artifacts for youths' projects. • Principle 3: Privileging creativity and collaboration by maintaining open-endedness and flexibility in youths' projects.
	Day 2: Introduction to technical theater and critiquing the disciplines of performing arts and science	• Community-building games • Discussion – what counts as "doing performing arts"? What counts as "doing science"? • Introduction to technical theater (e.g., scenic design, lighting, sound, costumes)	• Principle 4: Utilizing artistic and scientific practices to design and create youths' projects. • Principle 6: Reflecting on common thinking practices between performing arts and science and critiquing these disciplines.
	Day 3: Coding workshop and critiquing the disciplines of performing arts and science	• Community-building games • Coding workshop: Coding LED lights • Synthesis activity: How would you introduce people to the mood of your neighborhood using lighting? • Graffiti activity and discussion: 6 Ws (who, what, when, where, why, how) posters for doing science and doing performing arts	• Principle 3: Privileging creativity and collaboration by maintaining open-endedness and flexibility in youths' projects. • Principle 4: Utilizing artistic and scientific practices to design and create youths' projects. • Principle 6: Reflecting on common thinking practices between

			performing arts and science and critiquing these disciplines.
Week 1: Connecting	Day 4: Coding workshop and exploring project pathways	• Community-building games • Continue coding workshop: Coding LED lights • Costume design challenge: Design and code wearable technology (LED light accessories) for your model's costume • Overview of possible pathways for youths' projects (e.g., interactive gameshow, art installation, murals, social practice art, multimedia performances with dance, spoken word, animation). • Begin storyboarding process: In small groups, youth began creating a message to highlight their focal issue in terms of their vision for their future community (i.e., What would you like your community to be like in 10 years?)	• Principle 1: Privileging youths' voices through creating messages about local social and environmental justice issues. • Principle 2: Promoting choice in the focal issue and artifacts for youths' projects. • Principle 3: Privileging creativity and collaboration by maintaining open-endedness and flexibility in youths' projects. • Principle 4: Utilizing artistic and scientific practices to design and create youths' projects.
Week 2: Envisioning and Creating	Day 5: Brainstorming and sharing stories-in-the-making for their projects	• Community-building games • Gallery walk and discussion: Exploration of local social and environmental justice issues • Workshops to support artifact development for projects: Laser cutting and 3-D printing • Building on their initial storyboards, youth discussed possible pathways for the group projects (e.g., installation or model, speech, short skit or video, spoken word, song, animation). • Whole group: Sharing of initial ideas for their projects	• Principle 2: Promoting choice in the focal issue and artifacts for youths' projects. • Principle 3: Privileging creativity and collaboration by maintaining open-endedness and flexibility in youths' projects. • Principle 4: Utilizing artistic and scientific practices to design and create youths' projects. • Principle 5: Building recurrent opportunities for youth to share and critique their project drafts with a meaningful audience.

Week 2: Envisioning and Creating	Day 6: Coding workshop, and project development and critique	• Community-building games • Coding workshop: Coding LED lights to respond to music (i.e., LED lights change color based on sound) • Project worktime: Youth checked in with their project group before breaking into specialized subgroups to work on project artifacts (e.g., coding LED lights, costume design, script-writing, 3-D printing). • Presentation and critique in small groups: Youth presented their artifact drafts to peers whom were not in their group. To get feedback on specific aspects of their project drafts, the presenters posed questions for the listeners and engaged in discussion based on these questions.	• Principle 2: Promoting choice in the focal issue and artifacts for youths' projects. • Principle 3: Privileging creativity and collaboration by maintaining open-endedness and flexibility in youths' projects. • Principle 4: Utilizing artistic and scientific practices to design and create youths' projects. • Principle 5: Building recurrent opportunities for youth to share and critique their project drafts with a meaningful audience.
	Day 7: Project development and critique	• Community-building games • Workshop: Envision what your group's performance could look like through improvisation. • Whole-group share-out of project drafts: A group of students share their project draft. Students volunteer to play roles of various characters in the story and act out the story on stage with the guidance of the performing arts instructor. • Discussion and critique of project drafts • Project group check-in • Continue working on projects	• Principle 1: Privileging youths' voices through creating messages about local social and environmental justice issues. • Principle 4: Utilizing artistic and scientific practices to design and create youths' projects. • Principle 5: Building recurrent opportunities for youth to share and critique their project drafts with a meaningful audience.
	Day 8: Project development and critique, and critiquing the disciplines of performing arts and science	• Community-building games • Graffiti activity and discussion: Revisiting and revising our 6 Ws (who, what, when, where, why, how) posters for doing science and doing performing arts • Project group check-in	• Principle 3: Privileging creativity and collaboration by maintaining open-endedness and flexibility in youths' projects. • Principle 4: Utilizing artistic and scientific

Week 2: Envisioning and Creating		• Continue working on projects • Whole-group share-out of project work from that day	practices to design and create youths' projects. • Principle 5: Building recurrent opportunities for youth to share and critique their project drafts with a meaningful audience. • Principle 6: Reflecting on common thinking practices between performing arts and science and critiquing these disciplines.
Week 3: Creating and Refining	Day 9: Project development and critique	• Community-building games • Whole-group share-out of project drafts: A group of students share their project draft. Students volunteer to play roles of various characters in the story and act out the story on stage with the guidance of the performing arts instructor. • Discussion and critique of project drafts • Project group check-in • Continue working on projects	• Principle 3: Privileging creativity and collaboration by maintaining open-endedness and flexibility in youths' projects. • Principle 4: Utilizing artistic and scientific practices to design and create youths' projects. • Principle 5: Building recurrent opportunities for youth to share and critique their project drafts with a meaningful audience.
	Day 10: Presentation practice and critique	• Community-building games • Draft presentation talking points • Practice presentations and engage in critique sessions with peers and instructors • Project group check-in • Continue working on projects	• Principle 3: Privileging creativity and collaboration by maintaining open-endedness and flexibility in youths' projects. • Principle 4: Utilizing artistic and scientific practices to design and create youths' projects.
	Day 11: Presentation practice and critique	• Community-building games • Project group check-in • Continue working on projects • Practice presentations and engage in critique sessions with peers and instructors	• Principle 3: Privileging creativity and collaboration by maintaining open-endedness and flexibility in youths' projects.

Week 3: Creating and Refining			• Principle 4: Utilizing artistic and scientific practices to design and create youths' projects. • Principle 5: Building recurrent opportunities for youth to share and critique their project drafts with a meaningful audience.
	Day 12: Symposium event	• Community check-in • Brief preparation time for upcoming presentations • Presentation of performances	• Principle 5: Building recurrent opportunities for youth to share and critique their project drafts with a meaningful audience.