

Community Climate Events Evaluation Report



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Introduction

The Oregon Museum of Science and Industry (OMSI) collaborated with Oregon State University (OSU) to fulfill broader impacts education activities for the *Investigating Antarctic ice sheet-ocean-carbon cycle interactions during the last deglaciation* (Deglaciation) project led by PI Andreas Schmittner, professor in the College of Earth, Ocean, and Atmospheric Sciences. The broader impacts work aimed to engage “underserved rural populations that may be most impacted by climate change.”¹ Through discussions with project leadership and partners, Newport, a city on Oregon central coast, was selected for various reasons including OMSI’s established partnerships there and the city’s proximity to Corvallis, where the PI is located, which aligned with his goal of building a long-term relationship with the community.

In partnership with diverse local community-based organizations, the project’s team held a workshop to brainstorm potential focal audiences and explore their interest in science topics related to climate change, as well as the format of future engagement events. After exploring various possibilities and available resources, the project’s team decided to focus on families from Latine and Indigenous Mesoamerican communities.

The final partners who supported the development and delivery of two community engagement events in Newport, Oregon, included Arcoiris Cultural Center, Oregon Sea Grant, and Newport Public Library.

The overarching goal of the project stated in the proposal was to establish new and empower existing dialogues about climate change within the community and between community members and climate scientists that build trust and solidarity (OSU, 2020). Through the co-development process, the learning goals and outcomes were revised, and the following desired outcomes were defined:

- Participants discuss and interact with evidence-based information about climate change, and recognize reasons for the scientific consensus about the causes of global warming
- Participants connect climate change information to local places, impacts, and existing initiatives related to climate change in the community
- Participants engage in conversations about observed climate change impacts

¹ Oregon State University (2020). *Investigating Antarctic ice sheet-ocean-carbon cycle interactions during the last deglaciation*. Proposal to National Science Foundation: unpublished.

This report presents the evaluation process and findings from the two community events (further referred to as Event 1 and Event 2).

Program description

This section provides an overview of the program components (activities) originally planned for both Event 1 and Event 2. However, based on findings from Event 1, the program of the second event underwent certain modifications, which will be described in more detail in the *Findings* section.

Climate Walk activity overview

The Climate Walk activity, as the name suggests, invited families on a self-guided walk around a few suggested places in Newport where they could observe local climate change impacts and have conversations about how their community might take action to preserve those places. The activity, developed in Spanish and English, included a map (see Appendices A through A3) with suggested locations at which families were encouraged to stop, without prescribing a specific route. Participants could decide themselves where to start the walk and how many locations they would like to visit. The full list of locations included: sandy beach, rocky shore, ocean, forest and creeks, the Coast park, and library garden. The back side of the map provided additional instructions about the walk and a grid with icons illustrating the locations and space for taking notes or making drawings. The instructions encouraged participants to finish the walk at the Library garden and look for a hidden “secret box,” the contents of which they were to discover—a rubber stamp and ink pad to stamp their activity form as a memento of completion.

“Climate Conversations” video overview

A short video called “Climate Conversations” was developed to model a connection between a community leader with a local climate scientist. The video featured an interview with Andreas, the PI of the project, and Alex, the Cultural Programs manager at Arcoiris, illustrating two different perspectives - scientific and lived - on human-caused climate change. Taking turns to respond to a series of questions, the interviewees discussed their pathways to learning about climate change, their beliefs about what evidence is convincing, as well as their views on community climate action. For the first event, the video was recorded in English and included Spanish subtitles. For the second event, the video was dubbed in Spanish and included the Spanish subtitles.



Alex and Andreas recording the video

Science demos overview

The event program also included three climate science demonstrations and a climate change-related conversation activity. Each demo was developed to illustrate different climate science phenomena: “Heat and pressure” - heat waves; “Salt and water” - changing water temperatures; “Rising tides” - rising sea level. A few short follow up questions were prepared for families to think about how these phenomena could affect their community.

A climate origami conversation activity, provided by the project’s consultant from Oregon Sea Grant, invited families to reflect on a range of climate change-related questions through an engaging game-like experience.



Science demonstrations set-up for Event 1

Evaluation overview

Purpose

The purpose of the evaluation was to assess the success of the community events by gathering data on how the participants engaged in and perceived the different components (activities). The goal was to explore evaluation questions with methods that could be used in future community events. In addition, evaluation of Event 1 pursued a goal of assessing usability of the Climate Walk activity, in particular - gathering families' feedback about their experience with the walk to inform remediation of the activity for Event 2.

Evaluation questions

- In what ways does participation in the event contribute to participants' recognizing and interacting with evidence-based causes of climate change?
- In what ways does participation in the event contribute to participants' connecting climate change to local places, impacts, and existing initiatives/community assets?
- In what ways does participation in the event provide opportunities to engage in conversations about observed climate change impacts?

Methods

Setting and Participants

Both community events took place at Arcoiris Cultural Center, one of the project's partner organizations that primarily serves and supports Latine and Indigenous Mesoamerican communities in Lincoln County, Oregon. Families (at least one adult and one child or youth under 18) from the local Newport community were recruited by Arcoiris staff to attend the events. Both events were co-hosted by the team consisting of representatives from each project partner organization. Together, the team had several staff members who spoke Spanish, with additional support from Spanish-speaking volunteers provided by Arcoiris. At both events participating families were asked to check in and go through the common procedure of reviewing and signing consent and media release forms upon arrival. After the check-in, the organization and flow of Event 1 and Event 2 followed a different scenario. The differences will be discussed in detail in *Findings*.

Data Collection

As part of the check-in process, a representative from each family reviewed and signed consent forms with information about the event and the evaluation procedures. According to OMSI's guidelines, consent forms provided information about participants' rights and measures taken to respect the confidentiality of their responses to interview questions. All participants received a \$150 gift card as an incentive per family.



Event 1 participants during the post-walk interview

For Event 1, data collection instruments included structured interviews with families upon their return from the Climate Walk, collecting (or taking pictures of) the maps that families used during the walk, and casual observations of the event by all members of the hosting team.

The interview guide was originally prepared in English and translated into Spanish by bilingual members of OMSI's evaluation staff (see Appendices B and B1). The interview questions were grouped into two sets. One set aimed to explore if, during the event, participants had opportunities to interact with evidence-based information about climate change, connect climate change with local places, and explore existing resources (e.g. organizations) that work to mitigate the impacts of climate change. Follow-up questions served to find out specifically what parts (activities) of the event provided such opportunities. In addition, several questions asked if participants were interested in continuing conversations about climate change in the future and what sources of information they would seek to learn more about the topic. Families' maps were collected (or photographed) and served as additional evidence of them making connections between local places and climate change (data from drawings and notes). The second set

of interview questions aimed to serve as remedial evaluation of the Climate Walk activity in particular and address areas for improvement in preparation for the Event 2.

During the interviews, the interviewers typically invited all family members to participate, making efforts to include children in the conversation. However, in many instances, the interviewers mostly engaged with adults, as children were often busy with other activities such as science demos or coloring pages. In those cases when children chose to stay with parents during the interviews, the interviewers would direct certain questions - primarily those focusing on the Climate Walk - to them.

In addition to collecting feedback from the participants, all members of the hosting team were asked to write down any relevant observations related to the event on a simple feedback form that was also collected at the end of the day (Appendix D).

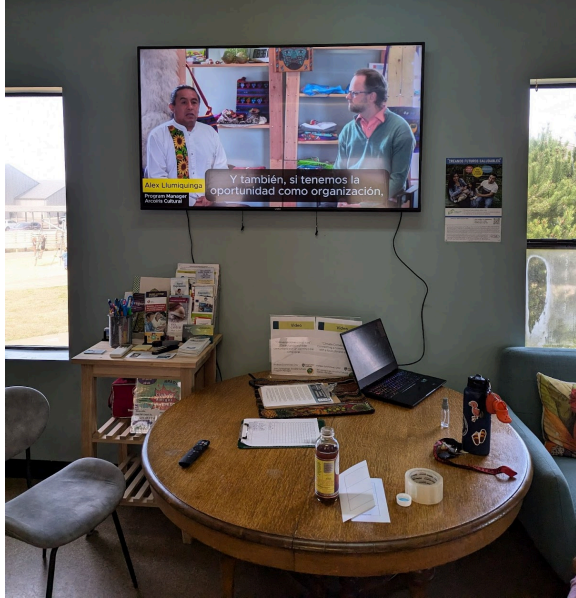
For Event 2, data collection similarly involved structured interviews with families and collecting (or taking pictures of) the maps that families used during the walk. Interview questions were revised based on feedback from Event 1 (see Appendices C and C1). In addition, by Event 2, the development of the Climate Walk activity had been largely finalized, so the set of questions seeking feedback specifically about the activity was removed from the interview guide.

To accommodate families' language preferences, in both events, the interviews were conducted in Spanish by bilingual members of OMSI evaluation staff and volunteers provided by Arcoiris.

Findings

Event 1 overview

Event 1 took place on August 16, 2024, welcoming nine intergenerational families that included adults and children of preschool to elementary school age. The event setup featured two stations with science demonstrations and the Climate Origami activity, and "Climate Conversations" video playing on a large TV screen. Music was also playing in the background, which caused the video to be set in a low volume.



“Climate Conversations” video set-up for Event 1

Families arrived at roughly the same time and proceeded to check-in. During check-in, they received brief instructions about the Climate Walk activity and were handed maps for their self-guided walk. After that, participants engaged with the demos or the video while waiting for lunch to be served. After lunch, most families set off for the walk on their own, which lasted approximately 30 to 40 minutes, with many completing the walk at the same time. Upon returning, families participated in the post-event interviews to reflect on their experience. All families opted for interviews in Spanish. As the OMSI evaluation team had only three Spanish-speaking members, volunteers from Arcoiris provided critical support in conducting the interviews.

Summary of findings from Event 1

Several key findings emerge from the families’ responses to the post-event interview questions focusing on the event as a whole:

Conflation of climate change with weather change. When asked about having conversations about climate change at any point of the event with someone they know, many families seemed to interpret "climate change" as day-to-day weather changes, mentioning natural phenomena like temperatures and fresh air (e.g. hotter or windier conditions in different places of the area) rather than discussing climate change as it is understood scientifically. This could be due to the dual meaning of the word "clima" in Spanish, which refers to both weather and climate.

E.g. One family 's notes about stopping at the beach: “*El clima es frío pero aún hay mucha gente disfrutando del paisaje o la playa.*” (The weather/climate is cold, but still there are a lot of people enjoying the views or the beach).

One family discussing the idea of the Climate Walk: “*De ir a los lugares, sentir el clima, y como más nos afecta.*” (Go places, feel the weather/climate and [think] how it affects us).

In the same vein, few families could give examples of climate change causes or name resources or organizations in their community that help mitigate climate change. Their responses were often vague or focused on general topics such as the importance of recycling or using more ecological fuels instead of gasoline. Some families mentioned they heard something in the news, at school or community events in the past, but couldn’t recall any specific examples. One participant said she heard from the news about “calentamiento” (warming) and that it’s getting hotter because of contamination.

Higher participation in the Climate Walk vs. other activities. While the Climate Walk was generally well-received, participants did not seem to focus on the video or science demos as much (see Table 1 for families’ participation in the activities).

Interview number	Climate walk	How many stops during the walk	Video	Demo Salt and Water	Demo Heat and Pressure	Climate wheel and origami
1	x	5				
2	x	Map missing	x	x	x	
7	x	5				
8	x	6	x			
9	x	5		x	x	x
10	x	5		x	x	
11	x	5	x			
12	x	5	x	x		
13	x	5	x			

Table 1. Families’ participation in the activities at Event 1.

Preferred sources of information about climate change. When asked where they would go for additional information on climate change, many families mentioned the internet (Google and Wikipedia). However, a few families also noted local organizations like libraries, schools, Arcoiris or community events as the potential sources for learning.

Future conversations about climate change. Several families showed interest in continuing conversations about climate change, particularly with family members or teachers. They expressed curiosity about learning more about wildfires, extreme temperatures, and possible solutions. However, a few respondents were hesitant about engaging in this conversation in the future, possibly due to uncertainty about the topic or a lack of personal interest.

When interpreting these findings, it's important to consider the aforementioned conflation of weather changes and climate change. While at times it may seem unclear which of the two concepts families are referring to in their responses, some specific references – such as mentioning wildfires or potential solutions – may suggest that participants were talking about climate change rather than everyday weather patterns.

Focusing on the specific feedback about the Climate Walk, the following trends emerged:

Understanding of the purpose of the Climate Walk. Participants' interpretations of the Climate Walk's purpose varied, but most understood it as a way to explore different places, learn more about their surroundings, and observe nature. One family also mentioned that they were supposed to explore places and “buscar los tesoros” (look for treasure), possibly referring to the box hidden at the library.

Starting point and route choices. Many families started the walk in the Coast Park next to Arcoiris, and several groups decided their stops based on convenience or proximity. Some simply followed the map, while others mentioned choosing places that were easiest to access, such as heading to the beach because it was closest. Some also shared about not reaching all stops because it was “muy lejos” (too far – most likely, referring to the farthest stop on the map), and one family specified that they didn't get to all 6 locations because “los niños ya no querían” (the kids didn't want to continue).

Taking pictures during the walk. While several groups took pictures during the walk, especially of visually appealing elements like the kites or natural features, others preferred to immerse in the moment without any distractions. Some families also made drawings of the things they valued, such as trees or flowers, or made (mostly descriptive) notes about each place they visited.

Challenges navigating the walk. A few groups mentioned feeling unsure about where to go next or what to do at certain points during the walk: “¿Dónde voy? ¿Dónde voy a

empezar?” (Where do I go? Where do I start?). Some were unclear about the instructions on the maps: “No sabíamos qué hacer, o qué mirar en el parque. Y en el mar no entendía “Want future generations to enjoy”. No supe “treasure”. Yo valoro el oceano/mar porque mucha gente no tiene eso” (We didn’t know what to do or what to look at in the park. And at the ocean, I didn’t understand “Want future generations to enjoy”. I didn’t know what treasure means. I value the ocean/sea, because many people don’t have that).



Families making a stop at the beach during the walk at Event 2

Overall experience and areas for improvement. While the Climate Walk was generally seen as a positive and engaging activity, with opportunities to explore nature and enjoy the beauty of the area, some families expressed suggestions for improving the activity, including:

- Using clearer signage, like a red arrow, to help participants know where they are on the route.
- Suggestions for splitting into groups or having a more structured experience to guide participants better.
- Suggestions for incorporating more natural features, such as walking by the aquarium or being surrounded by more trees.

Event 2 overview

The second of the two community events was held on September 8, 2024 and included five intergenerational families. While some activities and procedures remained the same (e.g. check-in process, providing lunch), findings from Event 1 along with feedback from the project partners made it clear that certain activities had to be revised for Event 2. In particular, the project PI was concerned that families “didn’t get relevant information about

the causes of climate change (humans, fossil fuel emissions), the consensus among scientists, how climate change affects the ocean, coast, and extreme events” (A. Schmittner, personal communication, September 4, 2024). In addition, the conflation of “weather changes” and “climate change” in Spanish language also needed to be addressed.

Based on these findings, the OMSI team and partners incorporated modifications to improve the program of Event 2. The key changes included:

- **Sharing an agenda with families.** Reflecting on Event 1, the Arcoiris Cultural Programs Manager responsible for recruiting the families, expressed that families would appreciate having an agenda so that they could see what to expect during the event. This suggestion was respectfully acknowledged, and after families checked in, one of the co-hosts from the OMSI team invited them to review the agenda for the day, explaining what each activity will involve.
- **Revising programming around the video.** According to observations from multiple staff, at Event 1, the video didn’t seem to receive enough attention from the participants, so certain climate change-related ideas introduced in the video likely went unnoticed. To address this issue, in Event 2, watching the video was transformed into a group activity followed by a group discussion, where families were invited to reflect upon the distinction between the concepts of the “weather changes” and “climate change,” discuss the causes and local impacts of climate change, and think about doable community action. To accommodate families’ language preferences, the video from the first event was updated to include a Spanish language voice-over along with Spanish subtitles. The group discussion was facilitated by the lead PI of the project, with English-Spanish interpretation provided by an Arcoiris volunteer and members of the Newport community.
- **Revising Climate Walk instructions to incorporate findings and families’ feedback from Event 1.** The Climate Walk instructions were revised to incorporate a brief note explaining the distinction between “climate change” and “weather changes” in Spanish: “El cambio climático se refiere a cambios a largo plazo en las temperaturas y los patrones climáticos. El clima o tiempo se refiere a los cambios del día a día (hoy está lloviendo).” (Climate change refers to long-term changes in temperatures and weather patterns. Weather refers to day to day changes.) A specific starting point was clearly marked on the map, inviting families to start from the Coast Park next to Arcoiris. A space on the back of the map for taking notes was expanded.

At Event 1, there were no specific instructions for the families as for whether they should complete the walk individually or in groups. As a result, although families left for the walk at roughly the same time, they spent most of the time walking

individually rather than in groups. In contrast, at Event 2, it was clearly communicated that families could choose to go on the walk as one big group, in small groups, or individually. As a result in this case, most families left for the walk together as a large group and continued walking together, with only one family opting to do the walk on their own.

- **Updating science demos.** Two of the three science demos available at the first event - “Salt water” and “Heat and pressure” - were removed from the program of Event 2. The “Rising tides” demo was kept in the event since it is specifically related to climate change. The demo was available for the kids to engage with while parents were participating in the post-video discussion, but also before going on the walk and after returning from the walk.
- **Revising interview questions based on findings from the Event 1 interviews.** Some interview questions were refined to clearly differentiate between “climate” and “weather” in Spanish. In addition, prompts that directly referenced specific activities, such as the video or Climate Walk, encouraged participants to particularly focus on their experiences within the event rather than relying on prior knowledge, because many examples in Event 1 that participants gave, seemed to be from outside of the event.

Summary of findings from Event 2

The findings below are organized into categories according to initial emerging themes in the participants’ responses to the post-event interview questions.

Conversations about climate change. The findings below focus on the topics families brought up in their conversations by combining data from the participants’ responses to the post-event interview questions and the notes they took on their maps during the walk. Most groups took detailed notes on their maps, with some focusing on specific observations at the marked locations (e.g. litter, lack of care), while others considered how these places could be affected by climate change. Although we didn’t directly hear families’ conversations during the walk, their notes suggest that families mostly understood the main purpose of the walk and completed the activity as was expected by its developers.

During the post-event interview, the families were asked at what point/moment of the event they either discussed themselves, or heard someone talk about climate change-related issues. The majority of responses mentioned either the group discussion after the video or the Climate Walk. In particular, examples of the causes of climate change were largely associated with the group discussion. The most frequently mentioned topics included:

- Melting of glaciers leading to the sea level rise
- Pollution from cars and cutting down trees
- Other human activities, e.g. littering the beach and parks.

On the other hand, examples of climate change impacts were mostly discussed during the walk, where the families were drawing on their immediate observations or personal lived experiences. Most responses included the following ideas:

- Forest and the creek: There were concerns about the complete drying out of the creek in the near future and the potential loss of flora in this area. It's important to note, however, that these conversations, to some extent, could have been prompted by one of the project partners who specifically drew the families' attention to the creek, highlighting it as an example of local climate change impact.
 - E.g.: *“Si el cambio climático aumenta, el pequeño arroyo desaparecerá y con ello toda la flora de ese sitio se marchitara ya que el agua se acabará y no podrá alimentar los árboles y plantas.”* (If climate change increases, the small stream will disappear and with it all the flora in that place will wither since the water will run out and will not be able to feed the trees and plants).



Families exploring the creek during the walk at Event 2

- Wildfires: Some participants noted that wildfires had directly impacted them, particularly those working in agriculture. The impacts of lack of rains and water on crops were the most frequently mentioned ones.
- Beach and ocean: Participants noted how rising sea levels can lead to the reduction of the beach space. Some also commented on changes in populations of ocean species caused by the changing of the water levels and temperatures
 - E.g.: *“El océano es un sitio donde habitan muchas especies y al cambiar su temperatura o su nivel puede afectar a su interior o exterior.”* (The ocean is a

place where many species live and changing its temperature or level can affect its interior or exterior).

“Un lugar menos para jugar por consecuencia del nivel del mar.” (One less place to play due to sea level).

Awareness of community resources. Most participants reported that during the event they did not see or hear anything about specific resources in their community that help mitigate the impacts of climate change. Yet, one family suggested that knowing where recycling facilities are located could be an example of such a resource, stating they have seen “lugares donde se puede reciclar responsablemente” (places where one can recycle responsibly) in the park.

Preferred sources of information about climate change. Participants named a variety of places they would go to learn more about climate change. Among those, the library and the Internet (Google, Facebook) were the most frequently mentioned sources. Some participants shared they would look for similar talks and discussions offered by community organizations, such as Hatfield Marine Science Center and Arcoiris Cultural Center. In addition to that, Arcoiris was recognized as a place where “ellos nos indican, y nos guían al buscar. Nos explican más. Es muy importante.” (...they guide us and point us in our search. They explain more to us. It's very important).

Future conversations about climate change. When asked about their interest in returning to conversations about climate change in the future, most participants expressed that they would likely talk again about climate change, particularly with family, friends, and coworkers. Several mentioned they would like to share what they learned from the event, while others noted they would talk about solutions and the importance of caring for the environment.

Overall experience and areas for improvement. Event 2 overall, as well as the Climate Walk in particular, were very well received by the families. When asked to reflect upon their perceptions of the purpose of the Climate Walk, participants generally understood it as a way to raise their awareness about the importance of taking care about the environment, find out what the community knows about the topic, as well as draw their attention to places they may not usually pay attention to.

Participants appreciated the walk for the opportunity to observe and enjoy nature, observe other people and their activities (e.g. paragliders on the beach), as well as slow down and feel the presence in the moment, as one participant noted: “Fue bueno que nos pona a pensar y observar lugares que no nos fijamos.” (It was good that it made us think and observe places we didn't notice).

However, some participants felt they lacked direction or sufficient information about what they were supposed to do or learn: *“Me gustaría que expliquen más. Poner la foto de los lugares. Poner nombres del dibujo en el mapa. Si una persona no sabe. No sé qué hacer en cada lugar. Yo pensaba lo que hay que hacer.”* (I would like to see more explanations. Put the photo of the places. Put the names of the drawings on the map. If a person doesn't know, I don't know what to do in each place. I was thinking about what to do).

In addition, in reference to the event overall, some participants expressed that they would like to have “mayor información, más ejemplos, objetivos más claros” (more information, more examples, and clearer objectives).

Conclusions and Recommendations

By reflecting on the findings from both Event 1 and Event 2, we can assess to what extent the events were successful in meeting the project's learning goals and desired outcomes.

Both events provided opportunities for families to engage with evidence-based climate change information through science demos and the Climate Walk. However, incorporating a group discussion after the video in Event 2 seemed to help clarify the distinction between climate change and weather change and support participants' ability to grasp the scientific consensus on the causes of climate change, as evidenced by the post-event interviews. Several families referenced discussing human-caused contributions to climate change such as fossil fuel emissions and deforestation during the group discussion, which suggests that Event 2, with the improvements informed by Event 1, was more successful in achieving the goal of engaging the participants with evidence-based information about climate change, and supporting them to recognize reasons for the scientific consensus about the causes of global warming.

The Climate Walk activity was key in connecting participants with their local environment. During the walks, participants took notes and discussed how local areas such as the ocean and beach, and forests and creeks might be affected by climate change. While Event 1 participants' observations lacked specific connections to climate change impacts, the addition of the group discussion in Event 2 seemed to help frame the walk, allowing participants to link their observations of local places with causes and impacts of climate change discussed earlier in the event. For example, families' comments about rising sea levels, changes in the ocean flora and fauna, as well as the drying creek near the library reflected an improved understanding of how climate change might impact their community.

One area where both events struggled to meet the desired outcomes was in connecting participants to local community resources or initiatives that work to mitigate the impacts of

climate change. While a few participants in both events mentioned local opportunities for recycling, most were not aware of specific community initiatives addressing climate change. This suggests a need for future events to more explicitly highlight and connect participants with local organizations and resources, for example, by including representatives from these organizations or providing materials with information on local initiatives.

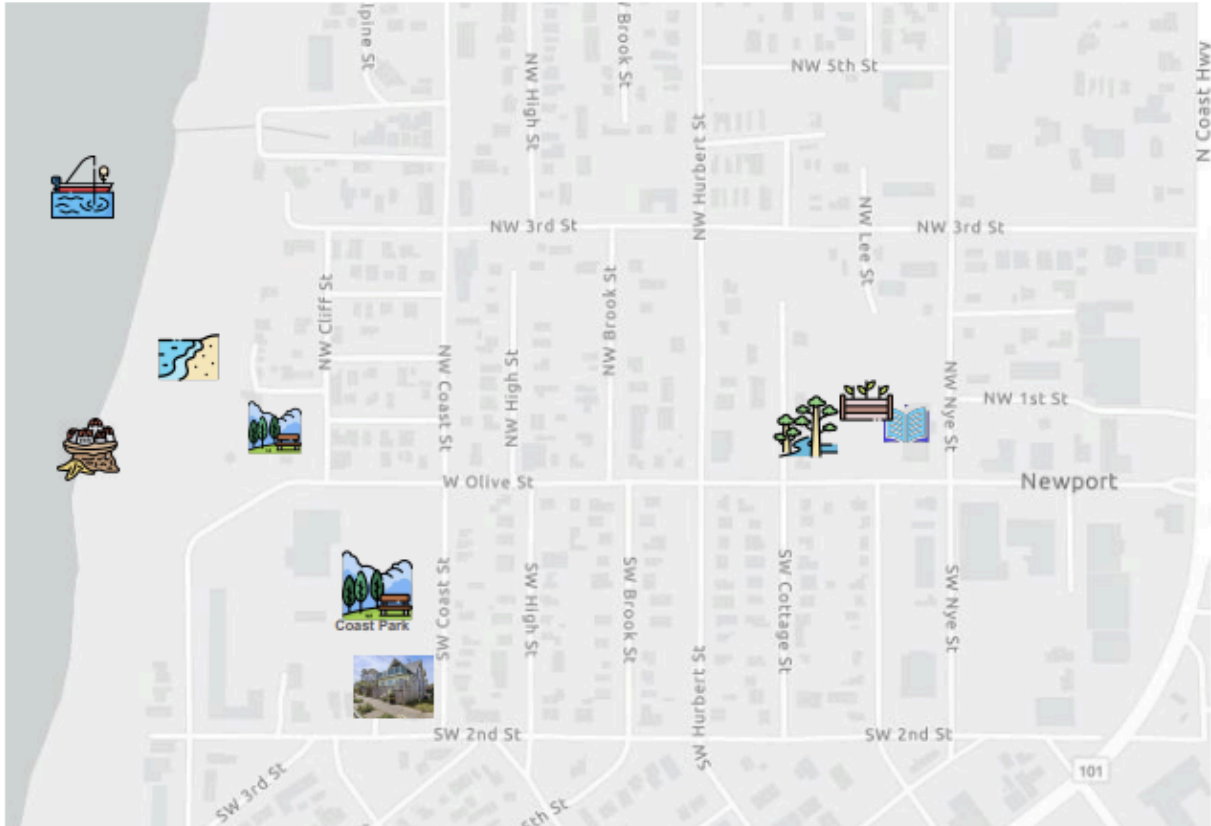
The two community events laid the foundation for relationship-building between community members and local climate scientists, starting a dialogue about climate change issues. However, the complexity of climate change, including the scientific concepts it involves and emotional responses it raises, suggests that only a couple of stand-alone events and activities might not be enough to foster climate change awareness and community action. Still, future events and activities can build on this foundation by offering multiple touchpoints and exploring different modalities for learning and engagement.

Additionally, when inviting people to reflect on climate change impacts within their community, it's important to not make assumptions about how they understand the concept of community. For instance, for events described in this report, evaluators defined community as "local, Newport-based" for reference in the interview questions. Meanwhile, there is evidence that when reflecting on climate change impacts, for some families it seemed to be more natural to refer to their home countries or other concepts of community rather than the Newport area.

For future work, it is recommended that the idea of community is negotiated with the target audience prior to making statements or asking questions to ensure that they can truly relate to the subject. Along these lines, the subtleties of language and culture overall need to be considered in the first place when planning for outreach activities within a particular community.

Appendix A. Climate Walk map Event 2 (English)

Climate Walk: Newport, Oregon Map



Icons on the map show places to visit. You can start at the **Coast Park** or any point and end at the library! Draw your path before you start!



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Climate Change on the Coast!







Climate change refers to long-term changes in temperatures and weather patterns .
Weather refers to day to day changes.

Go to each of these places on the map consider and write how climate change affects that place, find something there you value and want future generations to enjoy.

As our climate changes, we expect:

- More extreme weather
- Higher sea levels and warmer oceans

With your group, each share something you value in each place you visit, how climate change might affect them, and how your community might take action to preserve them.

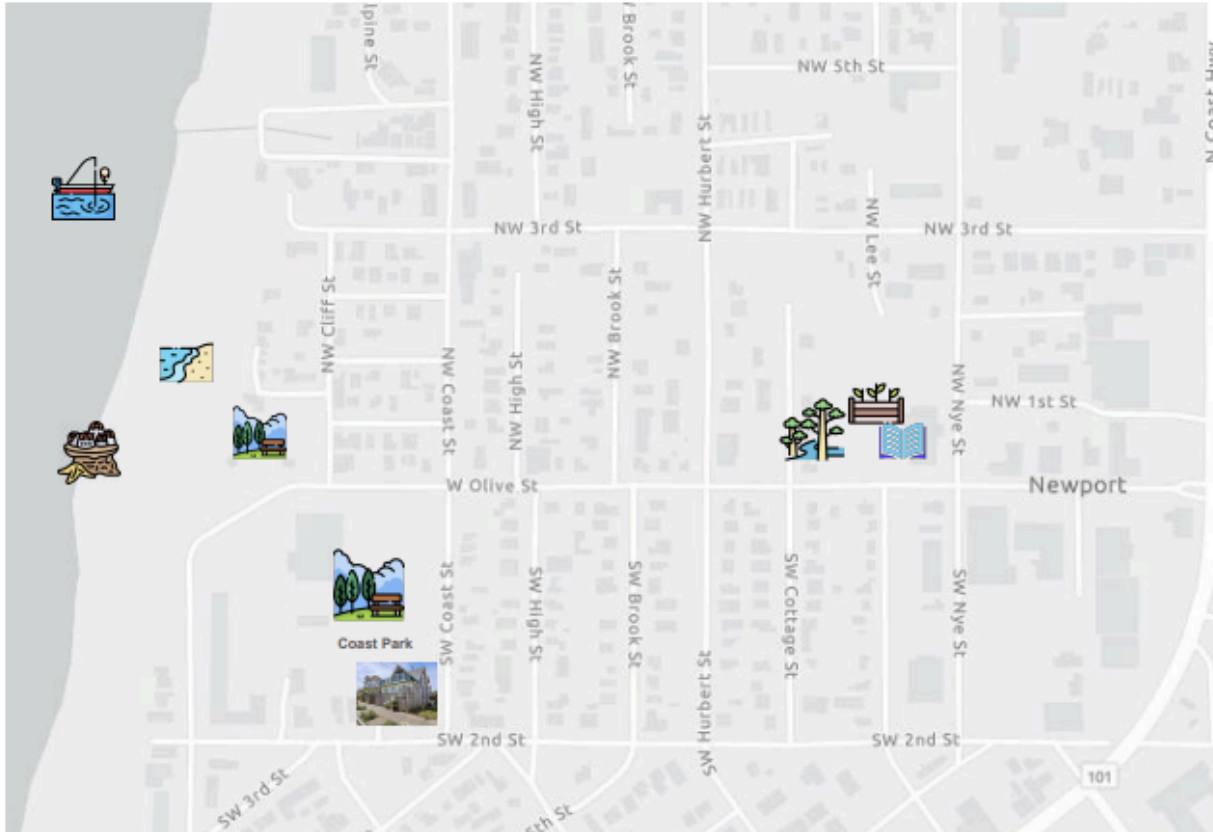
 <input type="checkbox"/> Sandy beach _____ _____ _____ _____	 <input type="checkbox"/> Rocky shore _____ _____ _____ _____	 <input type="checkbox"/> Ocean _____ _____ _____ _____
 <input type="checkbox"/> Forest and creeks _____ _____ _____ _____	 <input type="checkbox"/> Park _____ _____ _____ _____	 <input type="checkbox"/> Library and garden _____ _____ _____ _____

Remember: When you end at the library's small garden, look around for icons to find the secret box!

Stamp here!

Appendix A1. Climate walk map Event 2 (Spanish)

Caminata y cambio climatico: mapa de Newport, Oregon



Los iconos en el mapa muestran lugares para visitar. ¡Puedes empezar en el Coast Park o en cualquier punto y recuerda terminar en la biblioteca!



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¡El cambio Climático en la Costa!

El **cambio climático** se refiere a cambios a largo plazo en las temperaturas y los patrones climáticos. El clima o tiempo se refiere a los cambios del día a día (hoy está lloviendo).

Ve a cada uno de estos lugares, considera y escribe como el cambio climático afecta ese lugar, encuentra algo que valores y desees que las generaciones futuras puedan disfrutar

A medida que nuestro clima cambia, esperamos:

- Temperaturas más extremas
- Niveles del mar más altos y océanos más cálidos

Con tu grupo, cada uno comparta lo que valora, cómo el cambio climático podría afectarles y cómo tu comunidad podría tomar medidas para preservarlos.



Playa y arena



Costa rocosa



Ocean



Bosque y arroyos



Parque



Biblioteca y huertos

¡Recuerda cuando terminen en los huertos de la biblioteca, busquen las imágenes de aquí para encontrar la caja secreta!

Estampa
aquí!

Congratulations, you did it!

Stamp your activity paper and use the notebook to write about what found in your walk.

Don't forget to take a pic of you, your group and share it it in social media if you wish using this: #OMSI #climatechange #newportor



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¡Felicitaciones, lo lograron!

Sella tu actividad y utiliza el cuaderno y escribe sobre lo encontrado en tu caminata.

No olvides tomarte una foto tuya , de tu grupo y compartirla en las redes sociales si lo deseas usando: #OMSI #climatechange #newportor



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Want to keep learning more?

Scan these codes to learn more about human-caused climate change. Also check the library for more resources!



¿Quieres seguir aprendiendo más?


Escanea estos códigos para aprender más sobre el cambio climático causado por el hombre. ¡Consulte también la biblioteca para obtener más recursos!




Appendix A2. Updated Climate Walk map incorporating feedback from Event 2 (English)

Climate Walk: Newport, Oregon Map


Icons on the map show places to visit. You can start at the **Coast Park** or any point and end at the library! Draw your path before you start and go to each of these places on the map!

 Library


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Oregon Museum of Science and Industry



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Climate Change on the Coast!

Climate change refers to long-term changes in temperatures and weather patterns. Weather refers to day-to-day changes.

As our climate changes, we expect:

- More extreme weather
- Higher sea levels and warmer oceans

When visiting each place, talk and write about:

1. What you value in each place
2. How climate change could affect that place



Sandy beach



Rocky shore



Ocean



Forest and creeks



Park



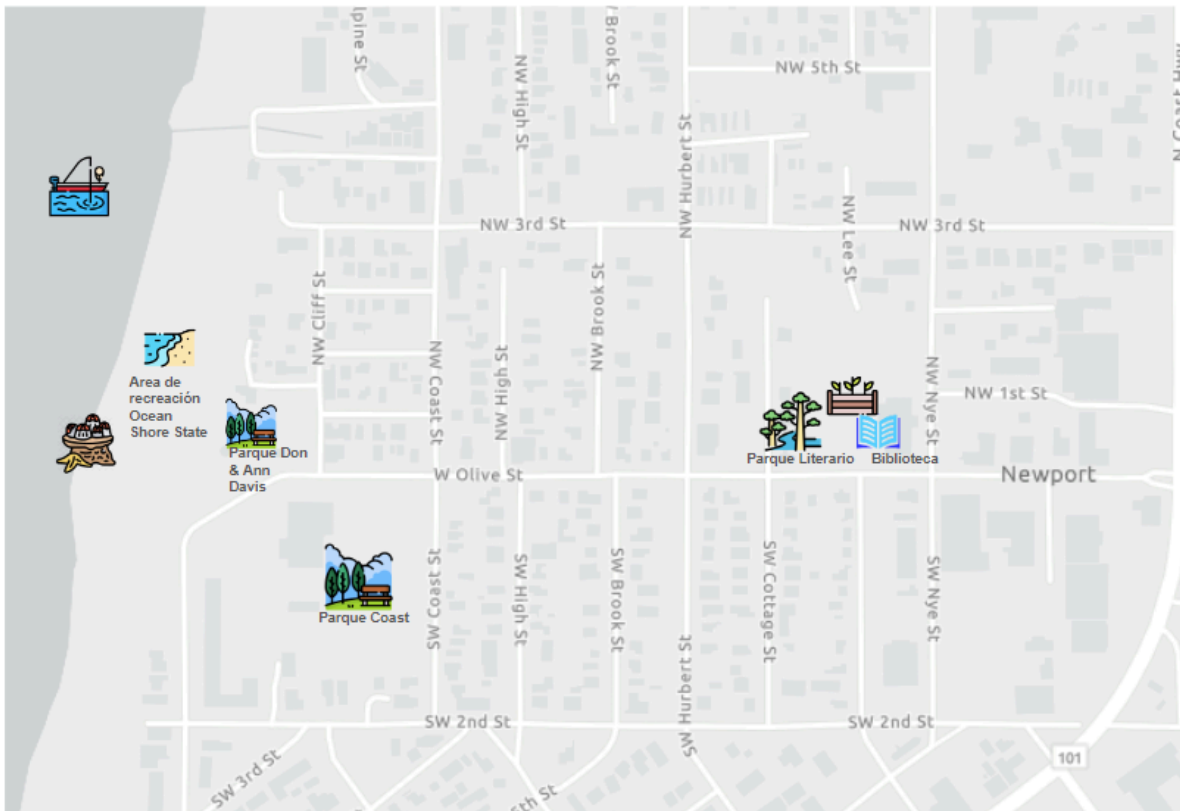
Library and garden

Remember: When you end at the library's small garden, look around for the icons to find the secret box!

Stamp here!

Appendix A3. Updated Climate Walk map incorporating feedback from Event 2 (Spanish)

Caminata y cambio climático: mapa de Newport, Oregon



Los iconos en el mapa muestran lugares para visitar. ¡Puedes empezar en el Coast Park o cualquier lugar y terminar en la biblioteca! Dibuja tu recorrido antes de empezar y visita cada uno de los lugares en el mapa!



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¡El cambio Climático en la Costa!

El **cambio climático** se refiere a cambios a largo plazo en las temperaturas y los patrones climáticos. El clima o tiempo se refiere a los cambios del día a día (hoy está lloviendo).

Visita cada uno de estos lugares, habla con tu grupo y escribe cómo el cambio climático afecta ese lugar, encuentra algo que valores y desees que las futuras generaciones puedan disfrutar

A medida que nuestro clima cambia, esperamos:

- Temperaturas más extremas
- Niveles del mar más altos y océanos más cálidos

Con tu grupo, cada uno comparta lo que valora, cómo el cambio climático podría afectarles y cómo tu comunidad podría tomar medidas para preservarlos.



Playa y arena



Costa rocosa



Ocean



Bosque y arroyos



Parque



Biblioteca y huertos

¡Recuerda cuando terminen en los huertos de la biblioteca, busquen los iconos del mapa fuera de la biblioteca para encontrar la caja secreta!

¡Estampa aquí!

Appendix B. Event 1 families interview guide (English)

Interviewer:

Interview #:

Hi, my name is _____,

We're collecting families' feedback about this event, and we'd like to ask you a few questions about your experience today. Your responses will help us improve various activities you saw today for families who will use them in the future. Once you're done here, you'll get your gift card.

Participating in this interview is completely voluntary, and you can opt out anytime without any issues. It'll take about 10 -15 minutes, and we promise to be mindful of your time. Would you like to do this in English or Spanish?

The first few questions will be asking about your experience with the whole event. Please think about all the activities you participated in today.

1. Which of the following did you experience today?

- Climate Walk
- Video
- Rising tides demo
- Heat and pressure demo
- Sea and salt demo
- Climate wheel and climate origami

2. At any point of the event today, did you talk about climate change with anyone? If so, what activity inspired that conversation? What did you talk about? Who did you talk to?

3. During the Climate walk or while participating in other activities today, did you see or hear about any examples of what causes climate change? What examples did you see or hear about? At what point/moment of the event was that?

4. During the Climate walk or while participating in other activities today, did you see or hear about any resources in your community that help ease the impacts of climate change? What resources did you see or hear about? At what point/moment of the event was that?

5. During the Climate walk or while participating in other activities today, did you see or hear about any places in your community that have been impacted by climate change? Or places that could be impacted in the near future? What examples did you see or hear about? At what point/moment of the event was that?

6. Where will you go for additional information about climate change if you feel you'd like to

learn more about it?

7. After today's event, do you feel like you might talk again about climate change with someone you know?

No Yes

If yes: Whom would you talk with? What would you talk about?

The next few questions will be focusing on your experience with the climate walk.

1. What do you think the creators of the Climate Walk activity wanted you to do?

2. Where did you start the Walk?

3. Once you started, how did your group decide where to stop next?

4. Out of the 6 places indicated on the handout, how many did you stop at?

If they say less than 6, follow up with: How did you decide to limit it to X stops?

5. During the Walk, did you take any pictures of objects or places with your phone?

No Yes

If yes: Can you give examples of what objects or places you took pictures of?

If they can name anything: Why did you take a picture of it?

If no, follow up with: Why did you end up not taking pictures?

6. Were there any moments during the Walk when your group felt you didn't know what to do next? Or where to go next?

No Yes

If yes: Can you give an example?

7. What was your favorite part about the Walk? How would you make it better?

Appendix B1. Event 1 families interview guide (Spanish)

Interviewer:

Interview #:

Hola, me llamo _____,

Estamos recolectando opiniones de las familias sobre este evento y nos gustaría hacerte algunas preguntas sobre tu experiencia de hoy. Tus respuestas nos ayudarán a mejorar las actividades que has visto hoy para las familias que las utilicen en el futuro. Cuando hayas terminado, recibirás tu tarjeta de regalo.

La participación en esta entrevista es totalmente voluntaria y puedes optar por no participar en cualquier momento sin ningún problema. Te tomará unos 10-15 minutos, y prometemos ser conscientes de tu tiempo. ¿Prefieres hacerla en inglés o en español?

Las primeras preguntas serán sobre tu experiencia de todo evento. Piensa en todas las actividades en que participaste hoy.

1. ¿Cuál de las siguientes experiencias hiciste hoy?

Caminata climática

Video

Demostración de la subida de las mareas

Demostración del mar y la sal

Demostración del calor y la presión

Rueda de cambio climático y origami de cambio climático

2. En algún momento del día de hoy, ¿hablaste del cambio climático (es decir patrones en el clima que son persistentes como olas de calor o heladas) con alguien? ¿Cuándo? ¿De qué hablaron? ¿Con quién hablaste?

Note: explain: cambio climático es diferente al clima, temperatura o tiempo.

3. ¿Viste u oíste hablar de algún ejemplo de las causas del cambio climático? ¿Qué ejemplos has visto o escuchado? ¿En qué momento del evento ocurrió?

4. ¿Has visto u oído hablar de algún ejemplo de recursos (organizaciones) en tu comunidad que ayuden a minimizar los efectos del cambio climático? ¿Qué ejemplos viste u oíste? ¿En qué momento del evento ocurrió?

5. ¿Has visto u oído hablar de algún lugar de tu comunidad que se haya visto afectado por el cambio climático? ¿O lugares que podrían verse afectados en un futuro cercano? ¿Qué ejemplos has visto o escuchado? ¿En qué momento del evento ocurrió?

6. ¿Dónde buscarías información adicional sobre el cambio climático si crees que te gustaría aprender más sobre el tema?

7. Después del evento de hoy, ¿sientes que podrías volver a hablar sobre el cambio climático con alguien que conozcas?

No Sí

If yes: ¿Con quién hablarías? ¿De qué hablarías?

Las próximas preguntas se centrarán en tu experiencia con la caminata climática.

1. ¿Qué crees que los creadores de la actividad de la " Caminata climática " querían que hicieras?

2. ¿Dónde empezaste la caminata?

3. En cuanto empezaron, ¿cómo decidieron en tu grupo dónde hacer la siguiente parada?

4. De los 6 lugares indicados en el folleto, ¿en cuántos paraste?

If they say less than 6, follow up with: ¿Cómo decidiste limitarte a [ese número de] paradas?

5. Durante la caminata, ¿tomaste fotos de objetos o lugares con tu teléfono?

No Sí

If yes: ¿Puedes dar ejemplos de qué objetos o lugares fotografiaste?

If they can name anything: ¿Por qué los fotografiaste?

If no, follow up with: ¿Por qué al final no tomaste fotos?

6. ¿Hubo algún momento durante la caminata en el que tu grupo sintió que no sabía qué hacer a continuación? ¿O a dónde ir después?

No Sí

If yes: ¿Puedes dar algún ejemplo?

7. ¿Cuál fue tu parte favorita de la caminata? ¿Cómo podría ser mejor?

Appendix C. Event 2 families interview guide (English)

Interviewer:

Interview #:

Hi, my name is _____,

We're collecting families' feedback about this event, and we'd like to ask you a few questions about your experience today. Your responses will help us improve various activities you saw today for families who will use them in the future. Once you're done here, you'll get your gift card. Participating in this interview is completely voluntary, and you can opt out anytime without any issues. It'll take about 10 -15 minutes, and we promise to be mindful of your time. Would you like to do this in English or Spanish?

The following questions will be asking about your experience with the whole event. Please think about all the activities you participated in today.

1. Which of the following did you experience today?

- Climate Walk
- Video
- Rising tides demo
- Climate wheel and climate origami

2. At any point of the event today, did you talk about climate change with anyone?

If yes: What activity inspired that conversation? What did you talk about? Who did you talk to?

3. During the Climate walk or while participating in other activities today, did you see or hear about any examples of what causes climate change?

If yes: What examples did you see or hear about? At what point/moment of the event was that?

4. During the Climate walk or while participating in other activities today, did you see or hear about any resources (organizations) in your community that help ease the impacts of climate change?

If yes: What resources did you see or hear about? At what point/moment of the event was that?

5. During the Climate walk or while participating in other activities today, did you see or hear about any places in your community that have been impacted by climate change? Or places that could be impacted in the near future?

If yes: What examples did you see or hear about? At what point/moment of the event was that?

6. Where will you go for additional information about climate change if you feel you'd like to learn more about it?

7. After today's event, do you feel like you might talk again about climate change with someone you know?

If yes: Whom would you talk with? What would you talk about?

8. What do you think the creators of the Climate Walk activity wanted you to do?

9. What was your favorite part about the Walk? How could we make it better for your family?

Appendix C1. Event 2 families interview guide (Spanish)

Interviewer:

Interview #:

Hola, me llamo _____,

Estamos recolectando opiniones de las familias sobre este evento y nos gustaría hacerte algunas preguntas sobre tu experiencia de hoy. Tus respuestas nos ayudarán a mejorar las actividades que has visto hoy para las familias que las utilicen en el futuro. Cuando hayas terminado, recibirás tu tarjeta de regalo. La participación en esta entrevista es totalmente voluntaria y puedes optar por no participar en cualquier momento sin ningún problema. Te tomará unos 10-15 minutos, y prometemos ser conscientes de tu tiempo. ¿ Prefieres hacerla en inglés o en español?

Las siguientes preguntas serán sobre tu experiencia de todo evento. Piensa en todas las actividades en que participaste hoy.

1. ¿Cuál de las siguientes experiencias hiciste hoy?

Caminata climática

Video

Demostración de la subida de las mareas

Rueda de cambio climático y origami de cambio climático

2. En algún momento del día de hoy, ¿hablaste del cambio climático con alguien?

If yes: ¿Qué actividad inspiró esta conversación? ¿De qué hablaron? ¿Con quién hablaste?

(For reference: El cambio climático se refiere a cambios a largo plazo en las temperaturas y los patrones climáticos. El clima o tiempo se refiere a los cambios del día a día (hoy está lloviendo)).

3. Durante la Caminata climática o al participar en otras actividades de hoy ¿Viste u oíste hablar de algún ejemplo de las causas del cambio climático?

If yes: ¿Qué ejemplos has visto o escuchado? ¿En qué momento del evento ocurrió?

4. Durante la Caminata climática o al participar en otras actividades de hoy ¿Viste u oíste hablar de algunos recursos (organizaciones) en tu comunidad que ayuden a minimizar los efectos del cambio climático?

If yes: ¿Qué recursos has visto o de qué recursos has oído hablar? ¿En qué momento del evento ocurrió?

5. Durante la Caminata climática o al participar en otras actividades de hoy ¿Viste u oíste hablar de algún lugar de tu comunidad que se haya visto afectado por el cambio climático? ¿O lugares que podrían verse afectados en un futuro cercano?

If yes: ¿Qué ejemplos has visto o escuchado? ¿En qué momento del evento ocurrió?

6. ¿Dónde buscarías información adicional sobre el cambio climático si crees que te gustaría aprender más sobre el tema?

7. Después del evento de hoy, ¿sientes que podrías volver a hablar sobre el cambio climático con alguien que conozcas?

If yes: **¿Con quién hablarías? ¿De qué hablarías?**

8. Pensando en la Caminata climática ¿Qué crees que querían los creadores de la actividad que hicieras?

9. ¿Cuál fue tu parte favorita de la caminata? ¿Cómo podría ser mejor para tu familia?

Appendix D. Event 1 staff observations form

Please use this form to take note of any feedback families share about the aspects of the event indicated below. If you observe something that you think could serve as valuable feedback about an activity, feel free to jot that down too. Thanks!

Aspect of the event	What I observed or heard from participants	Notes/comments
Climate Walk		
Video		
Demos (Andreas)		
Demo (Schmitty)		
Other (specify below):		