



Imagine *Our Community* 2100

Sustainability is protecting people, planet, and prosperity.

Imagine *Our Community* 2100

GENERAL DESCRIPTION

Type of program

Forum

Overview

This discussion-based activity encourages participants to imagine their community 80 years into the future using the United Nation's Sustainable Development Goals (SDGs). Participants will learn about current sustainability initiatives within their community from a local subject matter expert and then work in small groups to collaboratively draw their future community.

Audience

This program works best for participants ages 12 and up.

Big ideas

- Sustainability means healthy people, communities, and environments, now and in the future.
- Sustainability science studies the interaction between people and the planet and finds innovative and responsible solutions to global challenges.
- We can work together to create a sustainable future. Everyone has a part to play.

Learning objectives

As a result of participating in this program, learners will increase their:

- Understanding of big ideas related to sustainable futures.
- Awareness of the ways that sustainability is relevant to their lives and issues they care about.
- Sense of self-efficacy related to sustainability, including their ability to take sustainable actions and participate in conversations about sustainable futures.
- Sense of connection to their own community by learning about the perspectives of other residents and community members.

TABLE OF CONTENTS

GENERAL DESCRIPTION	1
Type of program	1
Overview	1
Audience	1
Big ideas	1
Learning objectives	1
BACKGROUND INFORMATION	3
Sustainability	3
References	4
MATERIALS & ADVANCE PREPARATION	5
Materials	5
Advance preparation	5
SET UP	8
Time	9
Steps	9
PROGRAM DELIVERY	10
Time	10
Talking points and procedure	10
Common questions from participants	12
Going further...	12
CLEAN UP	12
Time	12
Steps	12
MODIFICATIONS	13
UNIVERSAL DESIGN	13
LICENSE AND CREDITS	13

BACKGROUND INFORMATION

Sustainability

Sustainability is a big concept. According to the United Nations (UN), a sustainable way of living “meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987). People’s needs include food, water, shelter, work, happiness, and respect. This definition of sustainability prioritizes equity, because it recognizes that people all over the world have needs that are equally important. This view of sustainability also emphasizes the importance of considering how our actions today will affect society, the economy, and the environment in the future.

In 2015, UN countries adopted the 2030 Agenda for Sustainable Development and its 17 Global Goals (also called the Sustainable Development Goals, or SDGs). The Global Goals outline a pathway to a better and more sustainable future for all. They address the interconnected challenges we face, and recognize that ending poverty must go hand-in-hand with strategies that build economic growth, address social needs, and tackle climate change and environmental protection (United Nations, n.d. and 2015).

Quality education is one of the societal (or “people”) priorities of sustainability. *Education for sustainability* “cultivates individual and collective potential...to increase the possibility that humans and other life can flourish on Earth now and into the future” (Cloud, 2017). Arizona State University’s Sustainability Science Education program provides a brief introduction to education for sustainability (Arizona State University, 2014).



An international group of collaborators have created a companion set of Good Life Goals that explain how everyone can do their part to create a better future. These include 85 ways anyone can contribute toward the Global Goals for sustainable development (SDG Business Hub, n.d.). The Good Life Goals are

more oriented toward individual (personal) action, whereas the Global Goals are more oriented toward collective (government) action.

Futures thinking and forecasting

Futures thinking skills and ideas help us to understand what might happen in the future, how we can get ready for it, and how each one of us can affect it (West, 2017). Futures thinking doesn't attempt to predict the future, but it does consider different ways the future might unfold. People have different ideas about what might happen and what they would like to see happen in the future, so it's important to consider multiple perspectives.

Local, state, and federal governments do this kind of forecasting regularly. Every department must consider what the needs of their community are now and in the future. More specifically, departments such as Planning and Development, Zoning and Development, and Urban Design focus specifically on the future of their communities.

References

Arizona State University. (2014). Sustainability science education. Sustainability education framework for teachers: <https://sse.asu.edu/ways-of-thinking/>

Brundtland, G.H. (1987). Our common future: Report of the World Commission on Environment and Development. Geneva, UN-Dokument A/42/427. <http://www.un-documents.net/ocf-ov.htm>

Cloud, J., ed. (2017). Education for a sustainable future: Benchmarks for individual and social learning. *Journal of Sustainability Education*, pp. 1-66.

SDG Business Hub. (n.d.) Good life goals. <https://sdghub.com/goodlifegoals/>

United Nations. (n.d.) The sustainable development agenda. <https://www.un.org/sustainabledevelopment/development-agenda/>

United Nations. (2015). Sustainable Development Goals. <https://www.youtube.com/watch?v=3WODX8fyRHA>

West, J.R. (2017). Futures thinking playbook. <https://library.teachthefuture.org/product/futuresthinking-playbook-supplementary-materials/>

MATERIALS & ADVANCE PREPARATION

Materials

- Tables and chairs, arranged to seat 6-8 people at each table
- One set of information sheets for the 17 UN Sustainable Development Goals or “SDGs” (available to download from nisenet.org)
- Table discussion ground rules (one per table) (available to download from nisenet.org)
- Disruptor scenarios (examples available to download a from nisenet.org)
- Roll of white paper, enough to cover each table completely
- Tape
- Pack of markers for each group
- Plain envelopes (one per group, to seal the disruptor scenario until needed)
- Modifiable slide presentation template (available to download from nisenet.org)
- Laptop, projector, and screen (for slides)
- Mic and speakers (for presentation) (optional)
- Light refreshments (such as beverages and cookies) (optional)

Advance preparation

Program flow

This activity has three different components that are carried out over the course of an hour to an hour and a half:

- Sustainability and your community: The whole group listens to an introduction to the UN SDGs and sustainability planning and presentation on local community by guest speaker or program facilitator (15 minutes).
- Imagine your future: Participants work with the others at their table to review a subset of the SDGs and brainstorm how their community could achieve those goals in the future. Then, the groups consider how a disruptor scenario might cause them to rethink their plans (35 minutes).
- Share and discuss: Each table shares their ideas with the entire room. Time permitting, the program concludes with a whole-group discussion (20-25 minutes).

Background research

Before facilitating the program, print out the file with the 17 SDGs and familiarize yourself with each goal. You’ll use these during the program, so you may choose to print on cardstock or laminate the sheets for durability. More information on the SDGs can be found here:

<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>.

Next, conduct basic research within your own community on any current or future sustainability projects. These may include rain garden building, funding for installing rain barrels, grants for homeowners to install solar panels, or initiatives to increase recycling. In addition, check to see if your community has a sustainability roadmap to address any long-term goals and targets around planning for

a more sustainable future. These could include goals around climate and energy, the economy and jobs, resilient infrastructure, equity and empowerment and innovation.

You'll also want to gather some basic statistics about your community that you can present to your participants. These might include current population, projected population growth, and other information that relates to your program focus.

Finally, consider what kinds of possible disruptors could be important in the future, such as extreme weather or the disappearance of pollinator insects. These scenarios should be examples of problems or emergencies that can disrupt or hurt an otherwise stable society. They can be general or specific to your area of focus.

Explore your community's resources, including your local and state government websites and city/county planning departments. Some communities have sustainability departments but most will work on these initiatives within other departments such as water treatment, wastewater, or sanitation. These services can be affected by droughts, flooding, and pollution, and so they may have plans in place for emergencies such as these and could discuss other actions they may be taking. They may have also staff who can provide information and resources. You can also reach out to an expert in higher education or industry to advise you on what your community may be already doing or planning for the future. If you're not able to find the information you need on your community's website, it may be available on your community's Wikipedia page under the latest census information.

Finding a guest speaker (optional)

As you do your background research, you may come across someone that you can invite to be a guest speaker at your program. You're looking for someone who can do a short introduction to the topic of sustainability in your community, and possibly also the UN Sustainable Development Goals in general. A local expert could address issues such as: *What steps has your community taken to be more sustainable, such as community rain garden building initiatives, funding for installing rain barrels, grants for homeowners to install solar panels, or initiatives to increase recycling? What are some issues that your community is facing like flood or drought? Does your community have a sustainability roadmap to address any long-term goals and targets around planning for a more sustainable future? What kinds of disruptors might be important?*

City or county officials might be willing to speak at your program about planning efforts and local issues. You might also find an expert at a local college or university, for example in urban planning, civic engineering, environmental studies, or meteorology and climatology. There may also be local businesses or nonprofits that are relevant to your topic. You'll want to meet with your potential speaker to introduce yourself and to explain the program format and audience before inviting them to speak. If possible, it's also a good idea to make time to hear them speak to determine their comfort level and ability to address the public.

Once you've located your guest presenter, you will want to work together on the opening section of the program. For example, you might discuss:

- Do you want a broad overview or a deep dive into a few issues like current sustainability problems your community is facing, initiatives to address drought or flooding, or income equality?
- Do you want your guest speaker to focus just on their work or include other information on the community?
- How much time do you want them to speak? (Around 15-20 minutes works well.)
- What are current statistics are most relevant in thinking about your community's future (population, job rate, mean income, waste management, electricity sources, water issues)?
- What jobs (private and government) in the sustainability field are currently offered within your community?

You should offer assistance as they put together their presentation. Make sure they know that this is not a traditional lecture with Q&A, and that the purpose of the presentation is to set up participatory dialogue among audience members. You should also let them know that participants really enjoy it when the experts engage in their conversations on sustainability issues. Don't hesitate to ask to review their presentation ahead of time and offer suggestions.

If you don't have a guest speaker to work with, that's okay! You can provide the program introduction.

Customizing materials

After you're familiar with your community's planning efforts, you'll want to customize some of the provided program templates:

- Slide deck: Update or replace the example slides with your information. Add guest presenter slides as appropriate. Consider whether you might want to have a few printed copies of the slides available as handouts, for reference and as accessibility aids.
- Disruption scenarios: After reviewing the example disruptors provided you might consider replacing some of these scenarios or adding new ones that relate more specifically to your community and the issues you're examining in the program.

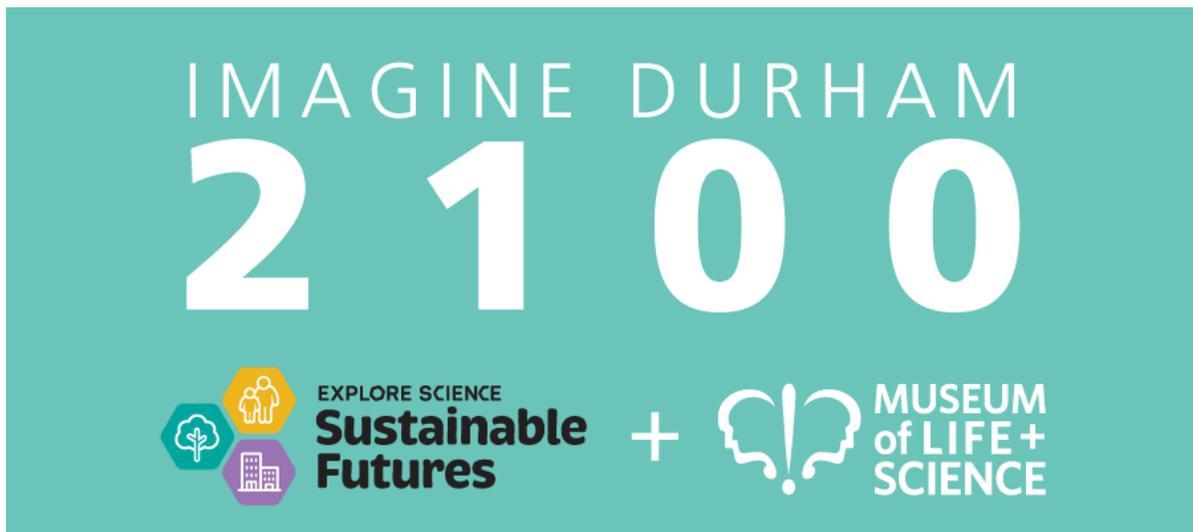
Marketing and Promotion

Program name: You might include the name of your community in the program title; for example, *Imagine Durham 2100*.

Marketing: Attendance will vary depending on how extensively the forum is publicized. Keep in mind the capacity of the room where you plan to hold the forum when you plan and promote your event. If you're able to provide simple food and drink, the prospect of light refreshments always helps draw participants. Be sure to use language or marketing materials that your institution has found to work best with older audiences (ages 12 and up). Here are some ways you can get word out about your event:

- Museum website and newsletter
- Museum member email list
- Social media (Facebook, Twitter, Instagram)

- On-site marketing, including mentioning the event at regularly scheduled presentations, interpretations, and member events, as well as having flyers or slides up where people will see them
- Local media outlets (newspapers, TV, community papers)
- Craigslist (www.craigslist.org)
- Meetup groups (<http://www.meetup.com/>)
- Community calendars and email lists
- Museum partner organizations
- Posters and flyers around the community
- Area universities and colleges
- Local businesses and organizations
- Local research centers
- Local Sigma Xi chapter (for scientists)
- Local festivals or community events



Example promotional graphic

Image credit: Erynn Affeldt, Museum of Life and Science

Pre-registration and communication with participants: Having participants pre-register using an online survey resource will allow you to poll them prior to the event to get information such as their email addresses; relationship to the forum; museum, community or business affiliation; how they heard about the forum; and any accommodations for people with disabilities. Gathering this information in advance will allow you to keep track of who comes to the forum, learn a little bit about them, and make changes to your setup based on participants with disabilities (e.g. providing American Sign Language interpreters). It is highly recommended that you send out an event reminder a few days prior to the forum. There are several websites that allow you to manage a registration list. Some options are SurveyMonkey, Eventbrite, and Google Forms.

SET UP

Time

30 minutes

Steps

1. Print out and prepare the graphic materials:
 - SDG info sheets: print double-sided
 - Disrupter scenarios: print single-sided and cut into slips; place each scenario in a sealed envelope
 - Table discussion guides: print one copy per table
 - Handouts of your slides (optional): print one per table
2. Set up tables and chairs so there will be at least 5 and no more than 8 people in each group.
3. Cover the tables with paper: Roll out a piece of butcher paper the length of the table and tape the edges of the paper to the ends of the table.
4. Place the following materials on each table:
 - Pack of markers
 - Two or three of the SDG information sheets. When distributing the SDGs it is helpful to pair concrete goals such as Clean Water and Sanitation with more abstract goals like Reduced Inequality.
 - One disrupter scenario (inside its envelope)
 - Table discussion ground rules
5. Set up and test the audiovisual equipment (mic, speakers, laptop, projector, screen)



Table setup

Image credit: Brad Herring, Museum of Life and Science

PROGRAM DELIVERY

Time

90 minutes

Talking points and procedure

Sustainability and our community (15 minutes)

Introduce the program and set the stage: Review the program goals and flow. Share the UN Sustainable Development Goals and introduce the idea that many communities are pursuing sustainability plans and initiatives. Next, present relevant current statistics for your community, such as: population, estimated population growth, demographics, average income, and any sustainability issues or community initiatives. Finally, if you have a guest speaker, introduce them.



Small group work

Image credit: Max Cawley, Museum of Life and Science

Imagine our future (35 minutes)

Review the Sustainable Development Goals: Ask participants to work with the others at their table. Each group should spend the first 5–10 minutes reviewing the SDG goals you placed on their table during setup. You might encourage the groups to designate one person to read each SDG aloud and then discuss them as a group.

Imagine the future: Invite each group to imagine what their future community would look like using their SDGs as a reference. Have them use the markers to begin drawing their future community on the paper taped to the table. Ask them consider what their community will need to prosper in the future. For example, where will people live and work? What will transportation look like? Where will people go in their free time? What will food systems look like? Allow the groups to work for 20–25 minutes.

Disruption scenario: Ask each group to open the sealed envelope containing their disruptor scenario. Explain to the entire group that these disruptor scenarios are examples of problems or emergencies that

can hurt, or disrupt a society, and therefore should cause each group to rethink parts of their future community. Invite them read the scenario aloud to their group and discuss how this new scenario might disrupt their future city. Allow an additional 10–15 minutes for each group to brainstorm ways their community will mitigate or adapt to their disruptor and adjust their drawings accordingly.

Share and discuss (20–25 minutes)

Prepare: Allow each small group to complete their future community drawing, then ask them to designate one or more members to share their ideal future community with the entire group.

Share: Provide 3–5 minutes per group to share. You can adjust this time depending on how many small groups need to share. Below are a few discussion prompts to ask each group to consider discussing during their report out:

- What were your SDGs and how did you incorporate them into your drawing?
- What was the disruptor scenario for your group and how did you try to solve that problem?
- What was one take away from this activity that you found interesting?
- What would change about any of these plans if you were planning for 10 years into the future? Or 200?

Discuss: After each group has shared, you may decide to have a whole group discussion and wrap up. Below are a few discussion prompts to start this discussion. If you had a guest speaker you might encourage them to help facilitate this portion.

- What steps can we take now to help ensure that our actual future looks more like these imagined futures?
- What policy changes should we strive for?
- What can we as individuals do to improve our communities now and in the future?



Example of completed drawing

Image credit: Brad Herring, Museum of Life and Science

Common questions from participants

Q: How realistic/idealistic should we be?

A: During the drawing portion of this activity you can be both realistic *and* idealistic with your drawings. You can use sustainability as an optimistic lens on the future, while also being grounded in reality.

Q: Do we have a budget or any restrictions?

A: There is no budget or restrictions. It would be too difficult for us as organizers to propose one or for you as participants to work out the cost of developing a city. This is an exercise to make you think about the SDGs and how they could impact our community, so focus on what you think is important for the future and not the cost.

Q: What type of drawing should we create for our community?

A: There is no specific way that you should do your drawing. Your group might feel comfortable making a detailed map of the community, or you might want to draw or write more general concepts. Each group might decide to do the drawing a different way, and that's fine.

Going further...

Encourage participants to follow up by exploring any relevant sustainability-based exhibits in the museum before they leave. Here are some additional suggestions and resources you can share:

The **city/county planning department** will have additional resources and information on local efforts to plan for the future.

“Good Life Goal Challenge sheet”:

<https://www.nisenet.org/catalog/ecosystem-engineers>

“Good Life Goals Pack of Actions”:

https://docs.wbcsd.org/2018/09/Good_Life_Goals/Pack_of_Actions.pdf

CLEAN UP

Time

15 minutes

Steps

Collect all paper materials from the tables and recycle them, or save them to use again in the future. You may choose to recycle the drawings, share them with others, or display them.

MODIFICATIONS

You can offer a similar, shorter activity for younger guests. Print out a small outline of a city scene and ask guests to draw and/or color their community in the future using one of the SDGs. Clean Water, Life on Land, Life in Water are good examples for younger learners. Invite them to share the changes they have made in their community. Adults will often discuss the SDGs in conversation while younger participants are drawing.

You can find an example of this type of activity here: <https://www.nisenet.org/catalog/my-community>

UNIVERSAL DESIGN

This program has been designed to be inclusive of visitors, including visitors of different ages, backgrounds, and different physical and cognitive abilities. The following features of the program's design make it accessible:

- Repeat and reinforce main ideas and concepts
- Provide multiple entry points and multiple ways of engagement

LICENSE AND CREDITS

Created by the Museum of Life and Science for the NISE Network as part of Arizona State University's Rob and Melani Walton Sustainability in Science and Technology Museums program, supported through funding from the Rob and Melani Walton Foundation.

Copyright 2020, the Museum of Life and Science. Published under a Creative Commons Attribution-Noncommercial-ShareAlike license: <http://creativecommons.org/licenses/by-nc-sa/3.0/us/>

The Sustainable Development Goals (SDGs) logo, color wheel, and icons are used according to the United Nations guidelines: https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/01/SDG_Guidelines_AUG_2019_Final.pdf

