EXPLORE SCIENCE
Sustainable Futures

Watch and Create!

Creativity for Sustainability

Sustainability is protecting people, planet, and prosperity.

CREATIVITY FOR SUSTAINABILITY

GENERAL DESCRIPTION

Type of program

Short activity

Overview

In this activity, children and adults work together to explore their relationship with technology and consider ways to make sustainable media consumption choices. Participants watch a short video clip, then try a creative challenge to turn time spent watching videos into an interactive and imaginative experience.

Audience

Suitable for children ages 4 and up

Big ideas

- Sustainability means healthy people, communities, and environments, now and in the future.
- Sustainability practices can be incorporated into everyday situations and scenarios.
- 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.
- Awareness that too much passive screen time, like watching videos or scrolling through social media feeds, can have a negative impact on children's health.
- Awareness of creativity as one strategy to improve the cognitive complexity of passive activities for children.
- Understanding that creativity is a beneficial skill that both caregivers and children can practice together.

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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.

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

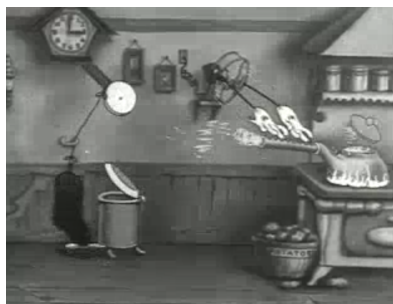# MATERIALS & ADVANCE PREPARATION

Materials

- Media device with ability to stream or download videos to watch during the program
- Creative challenge cards (a few copies, so multiple groups can work simultaneously)
- Comic strip summaries and template (a few copies, so multiple groups can work simultaneously)
- Table sign (one copy)
- Take-home bookmarks (one for each participating group) (optional)
- Colored pencils, markers, or crayons
- Paper
- Scissors
- Tape
- Variety of craft and recycled materials (see below for suggestions)
- Small, simple musical instruments (optional)

Graphic files can be downloaded from the NISE Network website: https://www.nisenet.org/

Advance preparation

1. Prepare video clips: Before starting this activity with participants, have at least three videos ready to play on your device. This activity works with a variety of media clips. Choose videos you think will be best for your audience. We recommend keeping them short (around one minute), story-driven, and appropriate for all ages. For example, trailers for animated feature films work well.

We suggest these three copyright-free videos: Betty Boop and Grampy, Superman: Billion Dollar Limited; and Tight Rope Tricks. The videos can be streamed or downloaded from the links below.

Betty Boop and Grampy
(1min 16sec)
bit.ly/watchandcreate1

Superman- Billion Dollar Limited
(1min 42sec)
bit.ly/watchandcreate2

Tight Rope Tricks
(58sec)
bit.ly/watchandcreate3

Don't forget to charge your device before use!

2. Print and prepare graphic materials: Graphic files are available for free download from the NISE Network website (nisenet.org).

Creative challenge cards: Print a few copies for use during the program. Cut them apart with scissors or a paper cutter. The graphic file includes two cards per page. For durability, you can print on cardstock or laminate the cards.

Comic strip summaries: If you are using the free videos provided with the program, the summaries are ready to print and use. If you are choosing your own video clips, download the template and create a summary for each video, adding a series of screen shots that summarize the plot in chronological order.

You will need a few copies of the summary for each video you are using during the program. For durability, you may choose to print on cardstock or laminate the pages.

Table sign: Print one copy for use during the program. You can insert it into a transparent plastic sign holder (inexpensive ones are available at office supply stores), tape it to the wall, or use it as a reference page rather than a sign.	
Bookmark: The optional bookmark is intended as a take-home resource for participants. If you choose to offer these, you will need one for each participating group. The graphic file includes three bookmarks per page, with a front and back side. Print the file double-sided on cardstock, being sure that you adjust the printer settings so the front and back are right side up. Cut out the bookmarks using a paper cutter or scissors.	

3. Gather challenge materials: For the Inventor Challenge, participants use their imagination and a variety of materials to create something to help out the characters in the story. We recommend providing a variety of clean, safe recycled materials (such as cardboard, egg cartons, and yogurt cups) and craft materials (such as short lengths of yarn, construction paper, and tape). Choose these materials with care, following your organization's safety policy (avoid sharp edges, items that present a choking hazard or entanglement hazard, and dirty materials).

Both the Artist and Director Challenges can be done with a variety of writing implements and paper.

We suggest small, simple musical instruments for the Musician Challenge, or a set of fun materials to make unique sounds.

SET UP

Time

5 minutes

Steps

Be sure your device is charged and the videos are ready to play. Set out all materials on a table. If possible, set up one area for viewing the videos and another nearby for doing the creative activity.

PROGRAM DELIVERY

Time

10-20 minutes

Talking points and procedure

1. Watch a short video

Participants choose and watch a video together.

Talking points:

Welcome! Do you and your family like to watch videos at home?

Well, today in our activity about **technology and sustainability**, you will get to watch a short video clip and then you and your grown-up will try a creative challenge that uses your imagination!

Before we watch a video, I have a question for you. Have you ever heard the word "sustainability" before? What does sustainability mean to you?

[Listen to their definition and acknowledge their response.]

When most people think of sustainability, they usually think about how we can keep the Earth healthy for people in the future to enjoy. That's very important, but sustainability isn't just about nature, it also can be about helping people live a healthy life.

[Refer to the table sign with sustainability definitions and goals.]

That's why today we will be talking about how to use technology in a *sustainable* and healthy way—while working on your creativity skills! This activity will show how you can go beyond just watching someone else's videos and really stretch your imagination by creating something yourself.

After you do the activity, we'll talk about why balancing passive screen time and creative activities can lead to a healthier life with technology.

2. Reflect and choose a creative challenge card

After the video ends, ask participants to reflect on what they saw. Next, invite them to pick a challenge card. Show them any materials you have available for them to use (as appropriate to the challenge they choose). Provide a copy of the comic strip summary to help them remember the characters, story, and settings of the video they just watched. Allow participants to take their challenge card and comic strip summary to their work area to use as references while they are creating.

Ask them to share their creations with the you when they're finished.

Talking points:

What did you think about that video? What happened?

[Listen to their reflections and acknowledge their response.]

Now I have a fun activity for you. You can choose an Artist Challenge, a Director Challenge, an Inventor Challenge, and a Musician Challenge.

[Show cards and let them make a choice, indicating available materials.]

[Alternatively, let them choose one at random.]

You can use this challenge card to guide you through the activity, and this comic strip summary to help you remember what happened in the video.

[Read challenge card with participants, highlighting child and adult roles.]

[Provide card and comic strip summary. As needed, explain the activity and encourage them to get started with the materials.]

I can't wait to see what you create! When you're ready, let me know so you can share your creativity with me.

3. Collaborate, create, and share

Participants work together to complete the challenge. You can check in and help as needed. Be sure you're available for them to share with you when they're done.

Tip: It is important to not just say "good job" after a participant shares their creations with you. Instead, ask open-ended questions about the specifics of what they made.

Here are some examples of creativity-enhancing questions you can use with participants:

- "**Can you tell me about** … your song?"
- "**I wonder.**.. if that character would be a hero?"
- "**Did you notice** ... how the red and blue are mixing together in your drawing?"
- "Do you have a **favorite part** of your play?"
- "What was **challenging** about writing your story?"

4. Wrap up

Thank participants for sharing, and tie the activity back to technology and sustainability. Offer them a bookmark (optional) and explain how they can continue to combine screen time with creativity at home.

Talking points:

Thank you for sharing what you made with me! Now, how did you feel doing the challenge?

[Listen to their answer and acknowledge their response.]

This activity lets you exercise your creativity—stretching those mental muscles! Balance is the key to using technology in a more sustainable way.

Research shows that too much passive screen time can be unhealthy for you. **This doesn't mean that screens are bad or that you can't enjoy watching videos—but try adding creative activities that excite your mind, like what you did here today.**

It's easy to make your own creative challenges for videos at home, and even more fun when you do them together! **Using your imagination together lets you share your ideas with others, consider new possibilities and perspectives, and build confidence in what you create.** The more you use your creativity, the more creative you become.

[*Hand participants a bookmark.]*

If you are interested in more tips about how to lead a balanced life with technology, check out this bookmark—and don't forget to try some creative challenges at home!

Thanks for participating in our activity.

Tips and troubleshooting

- Use the table sign and talking points to help guide conversations about why your organization is doing this activity and how the activity relates to sustainability.

- Encourage collaboration between adult caregivers and children, as recommended on the challenge cards. It is important to encourage adults to actively participate with the children and enjoy the chance to practice their own creative skills.

- Consider setting up a workspace for participants separate from where you introduce the activity. This will allow multiple groups to start and finish the activity at different times and not feel pressured to rush through it.

- You may choose to pre-select challenge cards based on your environment, materials, and audience. The Inventor Challenge typically takes longer than the Artist Challenge, and the Musician Challenge may be overwhelming if many other participants are around.

- Use the bookmark as a way to assist participants in extending the learning from this activity into their home environment.

Going further…

Provide a stack of take-home bookmarks in an accessible place on the materials table and hand them to participants at the end of your wrap up. The bookmark includes a link (bit.ly/watchandcreate) that will guide program participants to the related resources listed below.

"**Create your own personalized family media plan today**":
www.healthychildren.org/English/media/Pages/

American Association of Pediatrics (AAP) recommendations for media use:
www.aap.org/en-us/about-the-aap/aap-press-room/news-features-and-safety-tips/Pages/Children-and-Media-Tips.aspx

"Are some types of screens better than others?"
www.commonsensemedia.org/screen-time/are-some-types-of-screen-time-better-than-others

"The lazy person's guide to saving the world"
www.un.org/sustainabledevelopment/takeaction/

"Goodlife goals pack of actions"
docs.wbcsd.org/2018/09/Good_Life_Goals/Pack_of_Actions.pdf

CLEAN UP

Time

5 minutes

Steps

Sort and store your materials in a safe place to reuse for next time.

UNIVERSAL DESIGN

This program has been designed to be inclusive of participants, including participants of different ages, backgrounds, and 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
- Provide physical and sensory access to all aspects of the program

While we have provided three video clips with comic strips summaries and four challenge cards that can be used for this activity, we encourage you to use whatever video clips and challenges you think would be best for your audience.

LICENSE AND CREDITS

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

Challenge Card artwork from Adobe Stock Images. Stock images are not covered under the terms of Creative Commons.

The videos recommended for this activity—*Betty Boop and Grampy* (1935), *Superman: Billion Dollar Limited* (1942), and *Tight Rope Tricks* (1933)—are in the public domain and available on Internet Archive: https://archive.org/

Activity photographs by Matt Jorge for the NISE Network.