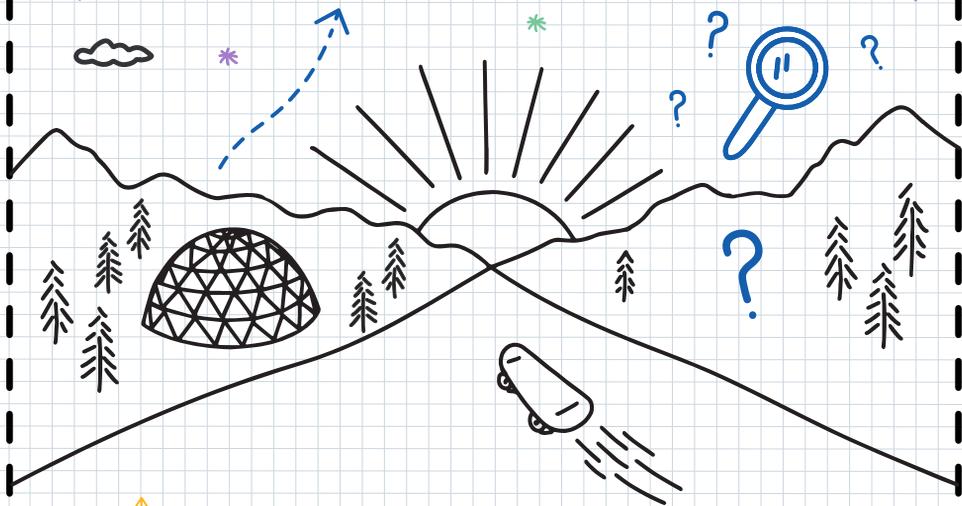


FIELD GUIDE

to sustainable

FUTURES



ARTS +
INDUSTRIES
BUILDING
© Smithsonian



Smithsonian
Science Education Center

Hello Futures Agent!

Welcome to FUTURES at the Arts + Industries Building, where we explore new ideas and imagine what we want our world to be. In FUTURES you'll find exciting new tech, art, history, science, and prototypes that offer different visions for many possible futures.

This guide helps you navigate the four halls of FUTURES, with a focus on how we might solve one of our greatest challenges – living more sustainably. You'll find things from the past, things that work better for our world, things that inspire new ideas, and things that unite us as we move toward a more hopeful, sustainable future.

The future is not a fact, it's a decision. We each play a part in making it the future we want.

Onward, friend!
The Smithsonian Team

Where are we going and how do we want to get there?

How do you feel about being able to create a sustainable future?



Negative



Neutral

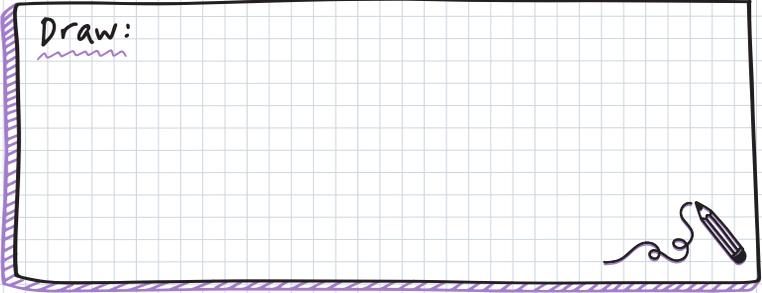


Positive

Sustainable FUTURES

Sustainability means interacting with the environment in a way that makes sure there will be enough resources left for the future.

What is my vision for a sustainable future?



Write: _____

What Makes Me a Future-Maker?

We welcome all dreamers, makers, and changers of tomorrow to the Arts + Industries Building. It is a space to think about a future that is more equitable and sustainable. Everyone can contribute to creating the future we want. Think about your interests and traits and ask yourself: What makes me a future-maker?

Look at words here. Circle any that make you a future-maker.

- Writer * Animal Lover Adventurous * Dreamer Fashion-forward
- Curious Innovative Math geek Optimistic Other: *
- Imaginative Experimental Nature Lover Artsy Designer Maker * Other: _____
- Storyteller Nature Lover * Collaborative Other: _____
- * Visionary Care Provider Analytical Other: _____
- Nature Lover * Techie Inventor Independent * Other: _____

FUTURES PAST

North Hall

We cannot truly understand the future without understanding our past. We are, after all, only the latest in a line of future-makers.

How can we build on ideas of past generations? What ideas should we bring forward? What ideas should we leave behind or change?

Let's look for...

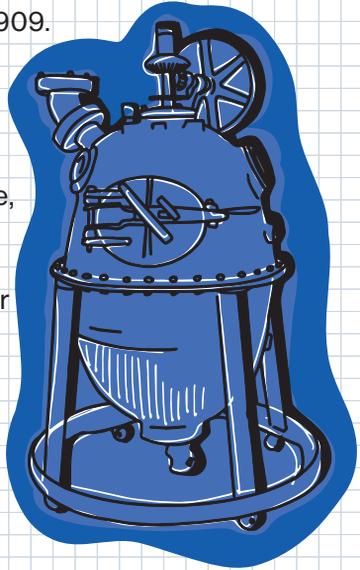


- A machine that created possibilities with new materials, but also caused environmental problems.
- An unusual but efficient type of home.



Bakelizer Steam Pressure Vessel

The Bakelizer made the first plastic in 1909. It marked a huge shift in materials used in manufacturing. Now plastics are everywhere. They have transformed our lives and enabled great innovation, but have also led to a throwaway culture, causing widespread environmental problems. Plastics take hundreds of years to break down. How can we better use this innovation in the future?



Look at this object.

What do you notice? What does it remind you of? How has plastic been helpful in your life? How has it been harmful?

Consider reusable designs and biodegradable materials. What does a sustainable future with less waste look like?

Draw:

A large rectangular area with a blue border, intended for drawing. In the bottom right corner, there is a small illustration of a pencil with a squiggly line next to it, indicating where to start drawing.

Write: _____

FUTURES THAT INSPIRE

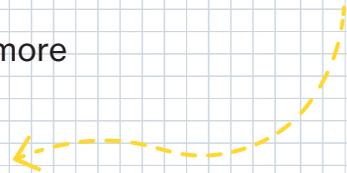
East Hall



Big dreams shape reality. The most important innovations can come from play and imagination.

How can your imagination help build a more sustainable future?

Let's look for...

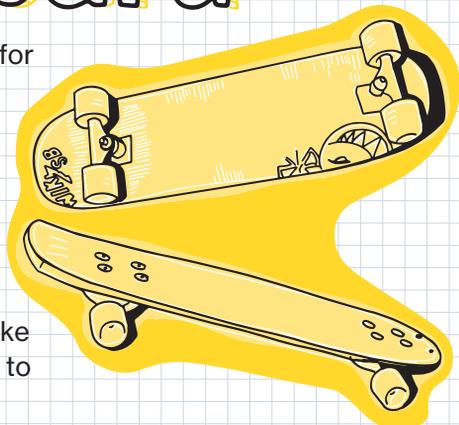


- A fun and sustainable mode of transportation.
- A community of the future in an unlikely place.



Leo Baker's Skateboard

Skateboarding began as a way for surfers to have fun on days the ocean was quiet. Skateboard athletes learn complex tricks. They do ollies, kickflips, and power slides. Many people saw skateboarding as a “male” sport. Athletes like Leo Baker, who is nonbinary, worked to make skateboarding more welcoming to everyone.



Skateboards are not just for fun. They are also transportation. Skateboards, scooters, and bicycles are micromobility tools. Micromobility tools are small, lightweight devices that do not have engines. They help people get around their communities without using fossil fuels. Electric or human-powered transportation is much better for the environment.

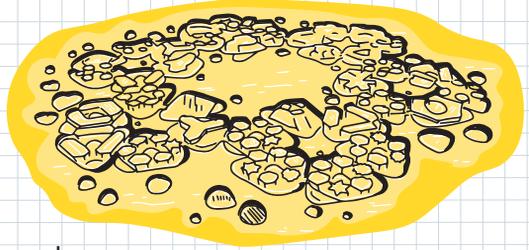
How can transportation change to become more sustainable?

Draw:



Write: _____

Oceanix City Model



Our climate is changing. Climate change is causing sea levels to rise. This is threatening many cities around the world. We may need to design new types of cities. The ocean surface could provide answers. Oceanix City is a plan for a sustainable city of 10,000 people. It uses solar energy, plant-based food production, zero-waste systems, shared mobility, affordable housing, and more.

Look at this model. What do you notice about how this community works?

Can you see yourself living in a floating city in the future? What would be the benefits and challenges to living on the ocean's surface?

Dream big about solutions for sustainable communities of the future! What would you add to Oceanix City?

Draw: 

Write: _____

FUTURES THAT UNITE

South Hall

How can we create a future that is more equitable, peaceful, and inclusive?

How can we make a more sustainable future by working together?



Let's look for...

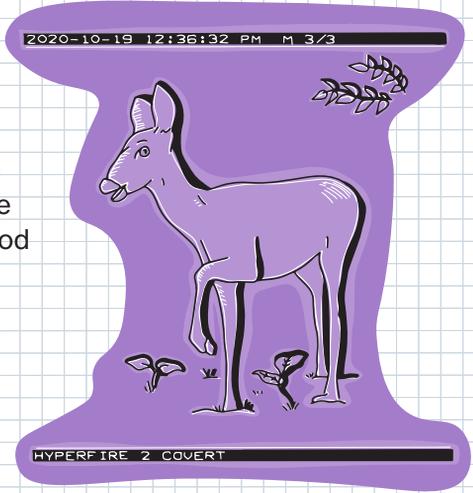


- A program that uses everyday people to help with environmental research projects.
- A program that saves animal species from extinction.



Citizen Science

Did you know you can help scientists do research from home? Sometimes they need help from the community to better understand nature. You can help identify wildlife, share information about neighborhood birds, or collect ginkgo leaves to learn about atmospheric change. This work makes you a citizen scientist!



How would you like to contribute as a citizen scientist?
What ways can your community benefit from citizen science?

What types of projects are needed in your community to better understand the local environment and wildlife?

Draw:

A large rectangular box with a dashed purple border. In the bottom right corner, there is a simple line drawing of a pencil with a squiggly line trailing behind it.

Write: _____

Smithsonian Cryo-Initiative Equipment

How do you save an endangered species? Smithsonian scientists are leading the way in cryo-collections. These collections save frozen genetic material for the future. In early 2021 scientists cloned a black-footed ferret. They used DNA that had been frozen for 30 years! This work can help boost endangered species populations and increase biodiversity. It may even bring back animals from extinction.



What species would you want in the cryo-collection?

Is there an animal species that you would like to bring back from extinction? What is it?

What do you see for the future of endangered species and biodiversity?

Draw:



Write: _____

FUTURES THAT WORK

West Hall



Technology moves fast. We don't always consider where the materials in our life come from. Meanwhile, climate change presents an enormous challenge for our global community.

What if we worked smarter, slower, and more thoughtfully toward sustainable solutions?

Let's look for...

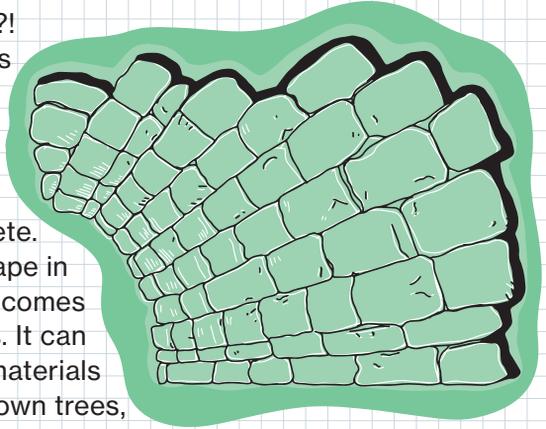


- A building material that uses a surprising ingredient.
- A waste product that's finding a new purpose.



Mushroom (mycelium) Bricks

Bricks made out of what?! Mushrooms!? Mushrooms or fungi might not seem like a great building material. But mushroom bricks are fire-resistant and stronger than concrete. They can grow in any shape in just one week. Mycelium comes from a part of the fungus. It can replace typical building materials like lumber, which cuts down trees, and cement, a main producer of carbon dioxide, with something more sustainable.



What structures in your city could be built with mushroom bricks? What would a unique mushroom brick building look like?

Draw:

A large rectangular box with a dashed green border, intended for drawing. In the bottom right corner of the box, there is a small drawing of a pencil with a squiggly line trailing behind it.

Write: _____



The future is not a fact. It is a decision. We can make the future what we want. What do you see for the future?

As you have seen through FUTURES and this guide, there is no single vision of the future, but many ideas for many futures. As we take on the great challenge of living sustainably, its important think about the causes you care about. Imagine how you can play an active role in shaping the future we want, not the future we fear.

Use this space to write your dream of a sustainable future. How can we build on past generations' ideas? How can we use imagination and play? How can we work together for a more connected future? How can we unite and be inspired to use our resources more wisely? The future you envision is uniquely yours!

Write: _____

Draw: _____



How do you feel about being able to create a sustainable future?



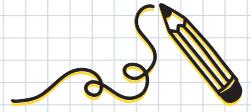
Negative



Neutral



Positive



Share your ideas with your family,
class, community, or on social media
with #TheFUTURES.

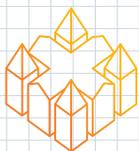
@smithsonianaib
@smithsonianscie



Field Guide to Sustainable FUTURES was created in
partnership with the Arts + Industries Building and the
Smithsonian Science Education Center.

Please visit [ScienceEducation.si.edu/futures-
toolkit](https://ScienceEducation.si.edu/futures-toolkit) to find the corresponding digital toolkit for
teachers, with science standard-based lessons for
the classroom and digital resources that enhance the
activities. Please visit aib.si.edu for more information
about FUTURES.

Please recycle this guide
when you are finished with it.



ARTS +
INDUSTRIES
BUILDING
© Smithsonian



Smithsonian
Science Education Center