Today I Learned About the City of the Future

Description:

What will the future look like? More importantly, what do we want it to look like? In this highly flexible culminating project, students work as a whole class to plan, design, evaluate, construct, and present their vision for a City of the Future.

Skills & Objectives

SWBAT

- Explain how choices in energy, electricity, design, planning, zoning, and more reduce a city's CO_2 and other heat-trapping gas emissions.
- Understand that municipal and community leaders make choices that shape a city's future for its residents.
- Name some solutions to climate change that they are excited about.

Skills

- Teamwork
- Critical Thinking
- Research

This activity is a culminating project for a unit on climate change. It is not a standalone activity.

Standards Alignment:
HS-ESS3-4 Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.
HS-ETS1-1 Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
HS-ETS1-2 Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
HS-LS2-7 Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.
HS-LS4-6 Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.

Disciplinary Core Ideas:
ESS2.D Weather and Climate
ESS3.A Natural Resources
ESS3.C Human Impacts on Earth Systems
ESS3.D Global Climate Change
ETS1.A Defining and Delimiting an Engineering Problem
ETS1.B Developing Possible Solutions
LS4.D Biodiversity and Humans

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How To Use These Activities:

Pages with the circular "TILclimate Guide for Educators" logo and dark band across the top are intended for educators. Simpler pages without the dark band across the top are meant for students.

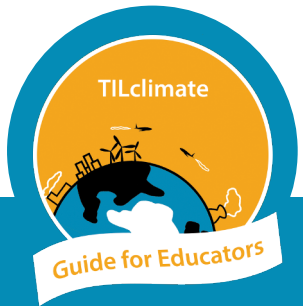
Season 2 Collection

Season 2 of TILclimate from MIT covers a series of interrelated energy subjects. The associated teacher guides are structured for maximum flexibility. Each episode's activities could be done as a whole class or as small-group work while other teams work on other topics and share back in a jigsaw. Some activities also can be enrichment or homework, and many as asynchronous assignments for remote work. Activities of similar length could also be set up as rotating stations, with a group discussion at the end of class.

- Introductory activities are quick (15-25 minutes) and require no internet.
- Dive Deeper activities are longer (30-60 minutes) and require internet access.

The City of the Future overall project is flexible in terms of time, space, and materials. It will be engaging whether students have completed all activities in the collection, or just one. If teams of students have been working on one topic each, the City of the Future process will help them share their learning with the rest of the class.

Podcasts in the Classroom: Throughout these Guides for Educators, we invite students to think about how they would share their learning with family and friends. One way to do this is to encourage your students to create their own podcasts - they're shareable, creative, and have multiple options for embedded assessment. We would love to hear any podcasts or see any other projects you or your students create! Email us at tilclimate@mit.edu, Tweet us @tilclimate, or tag us on Facebook @climateMIT.



Today I Learned About the City of the Future

How To Do This Activity

What do your students imagine for the future? Helping youth today envision the world they want to create can be empowering and uplifting. By describing and imagining a future that is exciting, beautiful, and engaging, students can see a place for themselves. The future needs people with every kind of skill – engineers, scientists, artists, nurses, musicians, entrepreneurs, mechanics, and many, many more..

The City of the Future is meant to be a culminating project. Students may have done multiple activities from the TILclimate Season 2 Collection, or they may have been learning about climate change through other means. The goal of The City of the Future is to combine all students' climate learning into a solutions-oriented, future-thinking, and hopeful celebration of the possibilities in a climate-aware future.

It would help if students know that they will be working toward the City of the Future as a final project as they work through their other climate-related activities and learning. This will help to inform the kinds of ideas, solutions, and thoughts that they collect throughout their learning process.

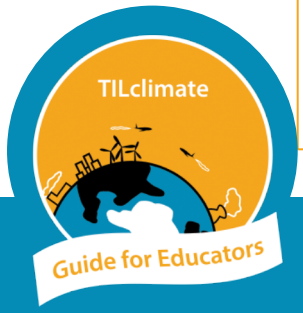
We know that not all classrooms will use activities from all portions of TILclimate podcast's Season 2. A document is included with resources from all parts of the season. During the Planning Board meeting phase, the other committees could use some of these resources to collect more solution ideas.

Presentation Ideas

Share the students' visions for the future! Students may want to share their learning with friends and family, the school community, or municipal decision-makers. Student excitement about climate solutions can inspire and motivate the adults around them. The mode of this presentation will vary, depending on the audience chosen, but ideas include:

- Podcast episode – tell the story of how the class developed the City of the Future, or imagine a day in the life of a student in the City of the Future
- Traditional presentation – create a slide-deck with images, statistics, and proposals
- Website – sell the idea of the City of the Future!
- Social media – document your process or share your completed City.

We would love to hear any podcasts or see any other projects you or your students create! Email us at tilclimate@mit.edu, Tweet us @tilclimate, or tag us on Facebook @climateMIT.



Today I Learned About the City of the Future

Collecting Solutions

The City of the Future is a celebration of possibilities. Therefore, the more possibilities students know about, the better. As your students are learning about climate change, they can be collecting climate-related solutions that inspire or excite them. These could be collected on an anchor chart, shared digital document, or sticky notes on a whiteboard.

Solutions come in many shapes and sizes. Students may learn about projects as big as a city's carbon-neutral goals, or as small as a local community garden. The City of the Future needs them all. As much as possible, these ideas should be at the community level – that is, not individual actions. When individual actions are presented, consider: What would need to change to make this action the easy default for everyone, instead of a hard choice?

A resource guide including articles and data links for all Season 2 Episodes is on p. ix-xii.

For more guidance on collecting solutions, see pages 1 and 2.

Organizing Solutions

While the Planning Board meets to create their rubric, the other committees should organize collected solutions. One method for sorting is the Snowball.

1. Write collected solutions on index cards or similar.
2. Divide index cards among committees.
3. Committees read through index cards and sort into categories. These may be pre-assigned categories, or the categories may become clear as the cards are read. Write the category on a blank index card and stack the cards together.
4. Category stacks that clearly connect with the mission of a particular committee are given to that committee. Other stacks may be assorted at random or by the teacher.

Today I Learned About the City of the Future

Construction

The Construction Phase will vary depending on physical space, time constraints, and teacher goals. Some ideas include:

- 3D: Use clean recycling materials (yogurt cups, paper towel rolls, etc.) or building blocks (LEGO or similar.)
- 2D: Large sheets of paper, either in a single piece or smaller pieces that are then joined together to form a map of the City. Images could be drawn, painted, printed out, collaged, etc.
- Digital: A shared digital whiteboard, digital portfolio or folder, or another platform.

Students may work in their committees or may form new groups to work on specific sectors of the City. It may help to also establish a few new roles:

- Project Management: For longer projects, a Project Manager makes sure that construction is happening on a timeline and that deadlines will be met. They may also circulate among groups and make sure that work is not being duplicated or in conflict.
- Journalism: Journalists document the process, from planning to construction. Photographs, videos, and interviews help tell the story.
- Design Support: Some students may have trouble translating a selected solution into a 3D or 2D representation. Design Support Team members can help create understandable representations.
- Research Librarians: As students are constructing solutions, they may run into research questions that will help them with their representation.

Today I Learned About the City of the Future

Community Goals

The most important step in planning the City of the Future is the establishment of Community Goals. These are the guiding vision that will determine the shape, function, and future of your City. While the Community Goals may be determined ahead of time by the teacher to save time, the process to determine Community Goals can be extremely rewarding for students.

In small groups:

- Students write a few key takeaways they have learned from their climate change investigations so far.
- For each takeaway, students write a goal or vision that would solve a related problem or challenge.
- Students look for connections between and among their goals.
- Each group rewrites one goal. Goals should be relatively broad (e.g., 'carbon-neutral city' instead of 'everyone has solar panels') and applicable to the topic at hand (i.e., if your focus has been on energy, the goals should all clearly connect to energy shift and energy efficiency.)

As a class:

- Refine proposed goals down to a list of 3-5 visions for the City of the Future.

Committee Descriptions

Planning Board (p 4) (made up of one member from each other committee)

- Devises a tool to evaluate whether proposed solutions fulfill the Goals.

Energy Commission (p 5)

- Determines how and where energy and electricity will be produced.

Building Department (p 6)

- Develops a Building Code for residential, commercial, and industrial buildings.

Zoning Board (p 7)

- Designates where in the city different kinds of buildings can be built.

Public Outreach (p 8)

- Creates an advertising and communications plan to explain the Goals.

Public Health (p 9)

- Ensures that the city is healthy for residents, including food, water, etc.

Today I Learned About the City of the Future

Phases

Phase	Title	Description
Prep p. iv	Introduction & Collecting Solutions	Before beginning a unit on climate change, students are introduced to the plan to design the City of the Future. Over the course of a unit of study, students collect climate-related solutions, ideas, and designs.
One p. vi	Community Goals	At the beginning of the project, the class agrees on 3-5 visions for their City of the Future.
Two p. vi	Establish Committees & Nominate Planning Board	Members of the five committees are decided, either by the teacher or by student choice. Committees should be roughly equal in size. Each committee then nominates one member to sit on the Planning Board.
Three p. 4 p. iv p. ix-xii	Planning Board Meeting Solutions Organization	The Planning Board meets to create the evaluation rubric. This rubric will help assess whether the plans from the other committees meet the Community Goals. Meanwhile, committees meet and work to collect and organize solutions. If necessary, they may use *TILclimate Season 2* Resources.
Four p. 4-9	Committee Meetings	With the Planning Board's rubric in hand, the five committees meet to complete their planning worksheets. For classes with limited time, the activity may end here, with the teacher assessing the planning worksheets using the rubric.
Five	Committee Presentations & Evaluation	Each committee presents their planning document to the rest of the class. Students use the Planning Board's rubric to evaluate plans. If necessary, committees may meet again to revise their work to better match the Community Goals.
Six p. v	Optional: Construction	3D, 2D, or digital representation of the City will vary based on physical space, time, and teacher goals. See *Construction*.
Seven p. iii	Optional: Presentation	Who needs to know about the City of the Future? Students may present their learning to the appropriate audience.

Today I Learned About the City of the Future

A Note About Timing

All TILclimate Educator Guide activities are meant to be flexible and adaptable, but City of the Future may be the most flexible of them all. Timing, therefore, is highly variable depending on your class's needs and schedule. Some possible plans:

- Planning Only, Teacher-Directed: 1-2 Class Periods
    - Introduce the City of the Future with pre-established Community Goals (5-10min)
    - Introduce pre-chosen Committees and Planning Board (5-10min)
    - Planning Board creates rubric while other committees collect solutions (20-30min)
    - Committees meet (30+min)
    - Committee worksheets are assessed by teacher
- Planning Only, Student-Chosen: 2-3 Class Periods
    - Introduce the City of the Future (5-10min)
    - Develop Community Goals (10-15min)
    - Form Committees, nominate Planning Board (5-10min)
    - Planning Board creates rubric while other committees collect solutions (20-30min)
    - Committees meet (30+min)
    - Committee worksheets are assessed by teacher
- Planning and Construction: 3-5+ Class Periods
    - Introduce the City of the Future (5-10min)
    - Develop Community Goals (10-15min)
    - Form Committees, nominate Planning Board (5-10min)
    - Planning Board creates rubric while other committees collect solutions (20-30min)
    - Committees meet (30+min)
    - Committees present worksheets (10-15min)
    - Students use Planning Board rubric to assess committee plans. Committees revise plans according to feedback. (20+min)
    - Construction of City – 2D, Digital, or 3D (45+min)
- Planning a Presentation: 1+ Class Periods in addition to time above
    - Identify audience (10-15min)
    - Choose presentation mode (podcast, traditional presentation, website, social media, etc.) (10-15min)
    - Gather images, stories, etc. (20-30min)
    - Create presentation (variable depending on mode)
    - Present to chosen audience (variable depending on audience and mode)

TILclimate Season 2 Resources

MIT Resources

- TILclimate Podcast: Quick episodes give you the what, why, and how on climate change — from real scientists and experts — to help us make informed decisions for our future. https://tilclimate.mit.edu
- Climate Science, Risk & Solutions: An interactive introduction to the basics of climate change. https://climateprimer.mit.edu/
- MIT Climate Portal Explainers: One-page articles describing a variety of climate topics. https://climate.mit.edu/explainers

The Electric Grid

MIT Climate Explainers:
- Cities and Climate Change
- Energy Storage
- Renewable Energy

Energy Information Administration:
- Energy Maps https://atlas.eia.gov/pages/energy-maps
- Electric Grid Maps https://www.epa.gov/egrid/data-explorer

Fossil Fuels

MIT Explainers:
- Mining and Metals
- Greenhouse Gases
- Carbon Pricing

Energy Information Administration:
- Energy Maps https://atlas.eia.gov/pages/energy-maps

Is It Energy or Electricity?

MIT Explainers:
- Greenhouse Gases
- Nuclear Energy
- Biofuel
- Renewable Energy

Energy Information Administration:
- Energy Consumption https://www.eia.gov/beta/states/data/dashboard/consumption

TILclimate Season 2 Resources

Wind & Solar Power

MIT Explainers:
- Renewable Energy
- Energy Storage

National Renewable Energy Laboratory:
- Solar maps https://www.nrel.gov/gis/solar-resource-maps.html
- Wind maps https://www.nrel.gov/gis/wind-resource-maps.html

Energy Information Administration:
- Energy Infrastructure and Resources map https://atlas.eia.gov/apps/all-energy-infrastructure-and-resources/explore

Energy Storage Articles
- MIT Explainer: Energy Storage https://climate.mit.edu/explainers/energy-storage
- Solar-Plus-Storage https://www.energy.gov/eere/solar/articles/solar-plus-storage-101
- An introduction to the state of energy storage in the U.S. https://yaleclimateconnections.org/2019/12/an-introduction-to-the-state-of-energy-storage-in-the-u-s/
- EPA: Electricity Storage https://www.epa.gov/energy/electricity-storage

Energy Efficiency

MIT Explainers:
- Greenhouse Gases
- Carbon Offsets
- Renewable Energy

Nuclear Power

MIT Explainers:
- Greenhouse Gases
- Nuclear Energy

Our World In Data:
- Safest Sources of Energy https://ourworldindata.org/safest-sources-of-energy
- Country Energy Profiles https://ourworldindata.org/energy#energy-country-profiles
- CO_2 Emissions https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions

International Atomic Energy Agency:
- Power Reactor Information System https://pris.iaea.org/PRIS/

TILclimate Season 2 Resources

Carbon Capture

MIT Explainers:
- Concrete
- Mining and Minerals
- Carbon Pricing
- Carbon Capture

Ask MIT Climate:
- How efficient is carbon capture and storage? https://climate.mit.edu/ask-mit/how-efficient-carbon-capture-and-storage
- Do we have the technology to go carbon neutral today? https://climate.mit.edu/ask-mit/do-we-have-technology-go-carbon-neutral-today

Biomimicry: a practice that learns from and mimics the strategies found in nature to solve human design challenges
- https://asknature.org/

Global CCS Institute
- Carbon Capture and storage facility data https://co2re.co/FacilityData

Fusion Energy

MIT Explainers:
- Fusion Energy

Cleaning Up Clean Tech

MIT Explainers:
- Mining and Metals
- Greenhouse Gases
- Freight Transportation
- Renewable Energy

United Nations Sustainable Development Goals
- https://www.un.org/sustainabledevelopment/sustainable-development-goals/

Supply chain: all the materials and activities that go into making, transporting, using, and disposing of something

TILclimate Season 2 Resources

Energy Definitions

	Energy Source	Where it comes from and how it is used	Renew-able	Low CO_2*
	Natural Gas	Pumped from deposits underground. Refined & burned to create steam for electricity or used directly to create heat.	✗	✗
	Petroleum	Pumped from deposits underground. Refined into oil, diesel, and gasoline and burned for electricity, heat, and transportation.	✗	✗
	Coal	Mined and burned to create steam for electricity or used directly to create heat.	✗	✗
	Nuclear	Uranium is mined and refined. Atoms are split to create heat and steam to generate electricity.	✗	✓
	Biomass	Burning trees, plants, and other organic matter for heat or to generate electricity.	✓	✗
	Wind	Using wind power to turn a turbine and generate electricity.	✓	✓
	Hydro-power	Using flowing water to turn a turbine and generate electricity.	✓	✓
	Solar	Materials mined from underground are used to capture light from the sun and generate electricity	✓	✓
	Geothermal	Using the natural heat and water below Earth's surface to heat & cool buildings or generate electricity.	✓	✓

*without carbon capture technology

Sector Definitions

	Industrial	Manufacturing, agriculture, forestry, mining, oil & gas extraction, and construction. Energy use is mostly heat for manufacturing processes, powering machinery, and heating and cooling buildings.
	Trans-portation	Cars, trucks, buses, trains, airplanes, and ships that are used to transport people and/or goods. Energy use is mostly fuel for engines.
	Residential	Houses, apartments, condominiums, etc. Energy use is mostly heating, cooling spaces and water, lighting, refrigeration, cooking, etc.
	Commercial	Businesses, restaurants, hotels, stores, government buildings, religious or social organization buildings, institutional living spaces. Energy use is mostly heating, cooling spaces and water, lighting, refrigeration, cooking, etc.

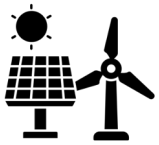
Images from the Noun Project Becris, Koson Rattanaphan, Hamel Khaled, Nawicon, ArmOkay, Jacqueline Fernandes, Tom Fricker, Ivan, Eragon, Ben Davis, Monkik, and Charif Deffa

Today I Learned About the City of the Future

The City of the Future Needs Climate Solutions

As you work on climate-related topics, collect solutions that fit into the following categories. This collection could be on an anchor chart, a shared digital document, or sticky notes on a white board. What kinds of solutions excite you the most?

Four Categories of Climate Solution



Energy Shift

Technologies, policies, and behaviors that reduce or eliminate heat-trapping emissions from fossil fuel use, like coal, oil, and natural gas.

- In the City of the Future, how will energy be made and used? What sources will we use?

Energy Efficiency

Technologies, policies, and behaviors that reduce overall energy use.

- In the City of the Future, how will we design our buildings and infrastructure to use less energy?

Adaptation

Technologies, policies, and behaviors that protect people and places from the impact of climate change.

- In the City of the Future, how will we design our buildings and infrastructure to be resilient to changes in precipitation, heat, and sea level?

Communication

In order to reach the City of the Future, we need more people on board.

- How do we share what we are learning outside our classroom?

Three Styles of Climate Solution

Technology

We are innovators. We invent new technologies, processes, and systems to generate energy, move people, and support our communities.

Policy

We are leaders. We create laws, taxes, and plans that make it easier for people and communities to choose a future that is healthy for people and the planet.

Behavior

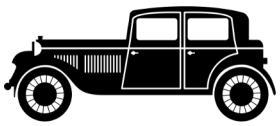
We are community members. We change the way we do things to make our communities healthier, safer, and more just.

Images from The Noun Project by Vectors Point, Nikita Kozin, Priyanka, Iconathon, Nithinan Tatah, dDara, and Emily Van den Heever

Today I Learned About the City of the Future

Community-Level Solutions

Solutions have the highest impact when they are more than an individual action. Any time solutions can happen at the level of policy, design, easy availability, and default choice, those actions are much more likely to have large and long-lasting effects.



Community-Level Solutions – A Story

When cars were first invented, they had no seatbelts, no collapsing steering columns, no airbags – no safety mechanisms at all. The commonly-held wisdom was that 'the nut behind the wheel' was the only cause of vehicle accidents. Public service announcements focused on being a good driver and watching out for other drivers. This is an example of a focus on individual actions instead of community-level solutions.

After decades and thousands of deaths, technological changes to cars began to make driving somewhat safer – but even these didn't become a default setting until more than 60 years after the first cars.

Today, we know that being a good driver is important. But we also know that accidents (and bad drivers, bad roads, etc.) happen – so cars are designed to protect you.

Community-Level Solutions – A Metaphor

Making an individual choice to change a behavior can be very difficult. We are often told that walking or riding a bike is better for us and for the environment than driving in a car. However, making that decision as an individual can feel like swimming upstream. There might not be sidewalks, bike lanes, crosswalks, or any of the other infrastructure that would make walking or biking safe and easy.

To make actions like this community-level, we can change the infrastructure so that walking and biking becomes just as easy (if not easier) than driving. This will make it feel like floating downstream with the current.

If one of the solutions you have collected seems like an individual action, consider: What would need to change to make this action the easy default, instead of a hard choice?

Images from The Noun Project by Fabio Meroni, Nurutdinov Timur, and Gan Khoon Lay

Today I Learned About the City of the Future

"Energy is the lifeblood of our society. It fuels the production of our food, and things we use every day, and powers our homes, cars, and workplaces. The cost of energy impacts the price of pretty much everything. A world without the cheap and abundant energy that we have today, well, we wouldn't recognize it.
And yet, generating energy for electricity and heat is our society's number one source of greenhouse gas emissions. And as those emissions cause global temperatures to rise, coastlines to recede, and natural disasters like wildfires, floods, and hurricanes to intensify, the world we're creating is one we won't recognize either."
Laur Hesse Fisher, MIT Environmental Solutions Initiative
TILclimate podcast: Today I Learned About The Electric Grid

A Warming Planet

When we burn fossil fuels like coal, oil, and natural gas, we release carbon dioxide (CO_2) into the atmosphere. Carbon dioxide and other gases act like a blanket, trapping heat on Earth. This trapped heat is changing our climate, causing dramatic changes in extreme weather and other effects all over the world.

Imagining the Future

Our cities today have grown over centuries, the result of choices made by generations of builders, planners, and policies. Looking toward the future, we can reimagine our cities as we change our use of energy and the way our cities support the lives of those who live, work, and play in them.

Your class will be imagining a city of the future. You will choose how it is planned, powered, and organized. As you make your choices, think about what you have learned about energy, electricity, efficiency, and the climate.

Planning for the City of the Future takes everyone. Designers, artists, and entrepreneurs can work with engineers, scientists, and builders. Anyone can have a good idea that is worth working towards.

Community Goals are the visions that will help shape your City of the Future. They should be broad enough to apply to many different aspects of life in a city. Describe what you want your city to feel like, look like, sound like, and provide for the people who live, work, and play there. Many goals are 'multisolving,' meaning that they solve more than one problem. For example, a city with a lot of walkable green space is cooler (urban heat island effect), has less air pollution, and encourages residents to spend time outside.

Citation

City of the Future: Planning Board

Instructions

The goal of the Planning Board is to develop a rubric to evaluate whether a plan from one of the other Committees fits the Community Goals.

For each Community Goal, describe what criteria you would use to determine if a plan does not meet the goal, meets the goal partially, or meets the goal.

An example has been provided.

Community Goal	Does Not Meet Goal	Partially Meets Goal	Meets Goal	Notes
Walkable green space for all.	Fewer than 75% of residents live within a safe 10-minute walk of a high-quality park.	75% of residents live within a safe 10-minute walk of a high-quality park.	Every resident lives within a safe 10-minute walk of a high-quality park.	Walk safety includes sidewalks, crossings, and public safety.

City of the Future: Energy Commission

Instructions

The goal of the Energy Commission is to decide how energy and electricity will be produced and used by each sector of the economy. Keeping your Community Goals in mind, how would you want electricity and energy to be used in each sector?

	Residential (houses & apartments)	**Commercial** (offices, stores, schools, etc.)	**Industrial** (factories, farms, mines, etc.)	**Transportation** (buses, trains, cars, trucks, etc.
How is electricity used?				
How is non-electricity energy used?				

Given what you have learned about all the ways that we can produce, store, and use energy, which technologies will you promote for the City of the Future?
Keep in mind:

- Heat-trapping gas emissions
- Other emissions
- On-demand vs variable generation
- Energy storage and transmission
- Fuel extraction, transportation, and disposal

	Residential (houses & apartments)	**Commercial** (offices, stores, schools, etc.)	**Industrial** (factories, farms, mines, etc.)	**Transportation** (buses, trains, cars, trucks, etc.
Electricity Generation				
Non-Electricity Energy Production				

City of the Future: Building Department

Instructions

The goal of the Building Department is to develop a Building Code for residential, commercial, and industrial buildings.

Keeping in mind your Community Goals, what elements will you look for in buildings? Examples could include technologies or designs. Keep in mind that some solutions may have benefits in more than one category.

	Residential (houses & apartments)	**Commercial** (offices, stores, schools, etc.)	**Industrial** (factories, farms, mines, etc.)
Energy Shift *Technologies and designs that reduce or eliminate carbon-producing energy uses.*			
Energy Efficiency *Technologies and designs that reduce overall energy use.*			
Adaptation and Resilience *Technologies and designs that reduce the impact of climate change.*			

City of the Future: Zoning Board

Instructions

The goal of the Zoning Board is to designate where in the city different kinds of buildings can be built. Keeping in mind your Community Goals, which kinds of buildings should be near one another, and which should be kept at a distance?

Factors to consider:

- Emissions and pollutants (health risks from one kind of building to another?)
- Transportation efficiency (how far do you have to travel for school, work, and daily life?)

	Residential (houses & apartments)	**Commercial** (offices, stores, schools, restaurants, etc.)	**Industrial** (factories, farms, mines, construction, etc.)
Near			
Far From			
Other Issues			

City of the Future: Public Outreach

Instructions

The goal of Public Outreach is to create an advertising and communications plan to explain the Goals. For all community members to be full civic participants, they need to know the goals and how they can be involved in making the goals a reality. For each Community Goal, describe how each sector of the population could be involved. An example has been provided.

Community Goal	School-Age Children	Teens & Young Adults	Adults & Elders	Community Leaders
Walkable green space for all.	Walking school bus within each neighborhood.	Park design competition.	Park design meetings, with a particular focus on disability and accessibility.	Walking tours to areas that currently do not have high-quality parks.

City of the Future: Public Health

Instructions

The goal of Public Health is to make sure that the City is healthy and safe for all residents. This includes clean air and water and access to health care, healthy food, green space, and more. For each Community Goal, consider how public health can be improved.

Community Goal	Public Health Impacts
Walkable green space for all.	• People can use green space for walking, playing games, and getting together with family and friends. • Local parks can host farmers markets, community gardens, and food festivals. • Green space keeps the area around it cooler in the summer and has cleaner air.