



2021-2022 City Model Slideshow

School/Organization: **E. N. Peirce Middle School**

Educator Name: **Mr. Christopher Beatty**

Future City Team Name: **Tyche**

Delete all PURPLE text before submitting the slideshow for judging. Keep text that is black.

Deliverable Details/Requirements

- This slideshow is your chance to present your model. Whether your team created a single model or multiple segments, here is where you show off the future city you designed to the judges.
- Choose photos of the various segment(s) that best show the requested content. Where noted, you can put one (1) or two (2) photographs of your team's work. The photos can take up as much space on the slide as you like, as long as they do not cover the slide title (upper left) or the text block descriptions on the right of the slide. More than two photographs are not permitted per slide. Collage images with more than two photos are not permitted.
- Do not change the size of text boxes in this template. All written text must fit within the boxes and *cannot* be smaller than size 14 in Calibri (or equivalent) font.
- When finished, save the slideshow as a PDF and upload to the Educator Dashboard at FutureCity.org.
- Review the 2021-2022 Program Handbook for a full list of rules and requirements.

Section I
CITY DESIGN



Residential Zone



What is important for the judges to know about your residential zone?:

Our residential district is also known as Old Town in our city as it was the center of the city from the 1800s. We have residential buildings in the form of townhouses in the middle of the two cross avenues, with commercial along the avenue, like it was when people entered the old city in the 1800s. Our residential district has a cluster of modern, taller buildings alongside the wedge park. Around two to three, maybe four apartments per townhouse, and in larger and/or taller buildings, we have multiple apartments per floor.

Commercial Zone



What is important for the judges to know about your commercial zone?:

Tyche's commercial zone encompasses the main crosstown avenue connecting the financial/skyscraper district to the shoreline. On the residential side of the city, there is a strip buffer of commercial buildings along the two main avenues, while on the industrial/commercial side, the larger buildings are modernized mini department stores. Our commercial buildings work together to reuse waste and materials via our recycling plants. This creates a circular domestic production system, which helps minimize waste, and create new products.

Industrial Zone



What is important for the judges to know about your industrial zone?:

This factory, which is part of our city's industrial zone is a highly specialized, waste free facility that creates Tyche's synthetic glass. This glass is a waste free alternative to regular glass which uses immense amounts of power to make. The smokestack that you see there is deceptive, it actually releases clean steam into the atmosphere that has no effect.

Infrastructure Example 1



What type(s) of infrastructure are shown here (water, power, utilities, etc.)?:

What is shown here is an example of transportation.

How are these related to the realities/challenges of a Waste-Free City?:

The tram system is a major example of Tyche's public transportation, which contributes a lot to the cut down of the city's overall waste output.

Infrastructure Example 2



What type(s) of infrastructure are shown here (water, power, utilities, etc.)?:

Utilities and power are the types of infrastructure shown in the image on the left.

How are these related to the realities/challenges of a Waste-Free City?:

These docks help fuel the economy and allow for imports and exports into Tyche, so we can make new products out of materials, collect recycled material to reuse the material, while also being able to export sustainably-made products. The docks also produce power by using tidal energy, which can power the docks, and then some. This can help us cut down waste, and ultimately cut carbon emissions by running on green energy.

City Services Example 1



What type(s) of city services are shown here (health, education, etc.)?:

Education is the city service shown here.

What do you want the judges to know about your city's operations?:

We value education for the young ones in our city and the future leaders of our city. Our city has a very engaging education system.

City Services Example 2



What type(s) of city services are shown here (health, education, etc.)?:

This is the Police and Fire Department.

What do you want the judges to know about your city's operations?:

The Police and Fire Department enforces laws and puts out fires in the city. This service is essential for the security of Tyche.

Transportation Example 1



What type(s) of transportation systems are shown here?:

This is the subway that runs underneath the city.

What do you want the judges to know about your transportation system(s)?:

The subway has enough capacity to transport all the people and goods in the city where they need to go.

Transportation Example 2



What type(s) of transportation systems are shown here?:

This is the cable car that runs across the city and up the mountain.

What do you want the judges to know about your transportation system(s)?:

The cable car allows people to be efficiently transported vertically and horizontally across the city.

Principles of a Circular Economy in Action - Example 1



What is important for the judges to know about this element of your circular economy solution?:

This is our morphic incineration plant, which burns waste that cannot be reused due to it being worn down/overused. The emissions from the process of burning the material is stripped of its toxic material, and turned into steam, without toxins, just fully water vapor. The toxic material and excess smoke is used to make energy, which saves the environment from the toxins, while positively affecting the city. This also uses waste that cannot be broken down or burned, due to either composition or toxin-emission, and molds it into a new material for shops and manufacturers.

Principles of a Circular Economy in Action - Example 2



What is important for the judges to know about this element of your circular economy solution?:

Our recycling center, foreground of this photo, is very much a critical part of our circular economy. This center repurposes materials into usable materials in demand for our commercial zones. This helps us maintain a steady work relationship between our commercial zones and our city services.

Principles of a Circular Economy in Action - Example 3



What is important for the judges to know about this element of your circular economy solution?:

This tower is the center of the city's economy. It regulates all trade and creates an environment in which buying another company's waste is encouraged. If a company has resources that can be reused, though with no use for them, they can be sold here.

Section II

BUILD IT: QUALITY, SCALE, AND MATERIALS

Innovative Material & Use Example 1



Choose a recycled or reused item and describe how you used it creatively in your model:

You may be looking at our amazing subway system, but look behind that at the seemingly simple tiles behind it. These tiles are made out of glass that was made in our very own factory. It uses high tech energy recapture to increase efficiency and we must say, it looks pretty nice.

Innovative Material & Use Example 2



Choose another recycled or reused item and describe how you used it creatively in your model:

This is the vegetation that wraps around the buildings in Tyche. Pictured here is the greenery twisting up the tallest tower in the city.

This plant material lowers carbon dioxide levels in the atmosphere and keeps the city pollution-free while being 100% natural.

Innovative Material & Use Example 3



Choose another recycled or reused item and describe how you used it creatively in your model:

Our city's train station is made from carbon-capturing polymers which helps minimize our carbon footprint, assisting our city to be carbon-positive. Grass and other bushes on the roof are to increase citywide wildlife, and to capture more carbon.

Example of Scale



Scale used in model (e.g., 1"= 10', or
1"=22'):
1"=25'

Structure 1

What type of structure is this?:
The structure is a house.

What size is the structure on the
model?:
The structure is 1"x1"x1".

What size would this structure be in real
life?:
The structure would be 25'x25'x25'.

Structure 2

What type of structure is this?:
The structure is a fence.

What size is the structure on the
model?:
The fence on the right: 3"x0.25"x0.125"

What size would this structure be in real
life?:
The structure would be 75'x6.25'x3.125'

Moving Part

- **Team Educators:** Don't forget to include the link to your team's moving part video in your Educator Dashboard submission section.
- **Judges:** Watch and review the moving part video from this team in your Judge Dashboard.

Video Details:

- The video must be posted as to be publicly available for judges to access on either YouTube or Vimeo.
- Video cannot exceed 1 minute.
- Teams need to mention their city/team name in the video.
- Teams must show the moving part in action.
- In the video, share what role the part plays within the city and how your team built it.

Section III

JUDGE ASSESSMENT OF MODEL

Futuristic Technology Example 1



What is important for the judges to know about this example of technology?:

The tram's energy recapture system is seen in other areas of the city. As the tram moves along its track, notches in the track rotate turbines beneath the tram. The rotation of the turbine turns a generator which converts the movement into electricity that can be stored in the tram's battery, with excess energy being transferred off at different stations.

Futuristic Technology Example 2



What is important for the judges to know about this example of technology?:

This is the organic material located on the tallest building in Tyche. It is a part of the advanced energy-recapture and storing system that can circulate back into the power system of the city.