2021-2022 City Model Slideshow

School/Organization: **Mother Teresa Regional Catholic School**

Educator Name: **Sabrina Dwinnell**

Future City Team Name: **Infinitopia**

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


INFINITOPIA MALL
INFINITOPIA HUMAN FARE FACTORY

Residential Zone

Our homes are constructed from natural and low carbon materials with green roofs, passive solar shading, and solar panels. Our buildings are constructed with natural resources such as green roof infrastructures. Green roofs last twice as long as old style roofs and when replaced, materials can be repurposed or composted. These infrastructures regulate the air and building temperatures, improve air quality, and control water treatment and storage. Also, these infrastructures are used by our citizens for recreation and to support healthy living.

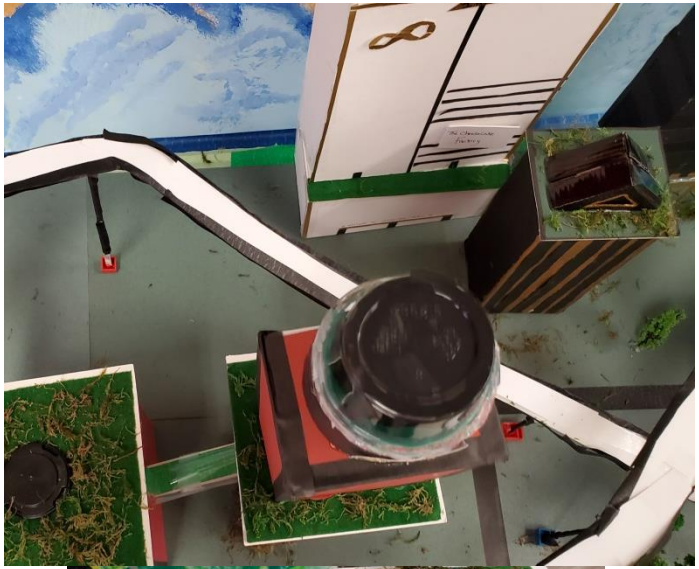
Commercial Zone

Here is an example of one of our shopping malls. Inside there are farmers markets filled with fresh produce and foods, fashion districts where our clothes are all made from upcycled or natural fibers and many other fun shops. Only natural resources are used to make our materials and plastics. Corn and sugarcane is used to make containers, bottles and garbage bags. We use shrimp shells to make fashionable purses and bags. Some products are made with stainless steel, glass, platinum, silicone, beeswax, natural fiber cloth, wood, ceramics, or bamboo. Everything is fashionable and durable and waste-free!

Industrial Zone

Our industries had to commit to becoming circular. There is zero waste in our manufacturing processes. Industrial waste, such as the orange peels from an orange juice factory, was transformed into insulation for our homes. We also use dematerialization by manufacturing items with interchangeable parts. For example, cell phones and computers are produced with modularity. Instead of throwing out the old phone or computer, you simply remove the unwanted component and replace it with an upgrade. The old parts are repurposed for the next generation of technology.

Infrastructure Example 1

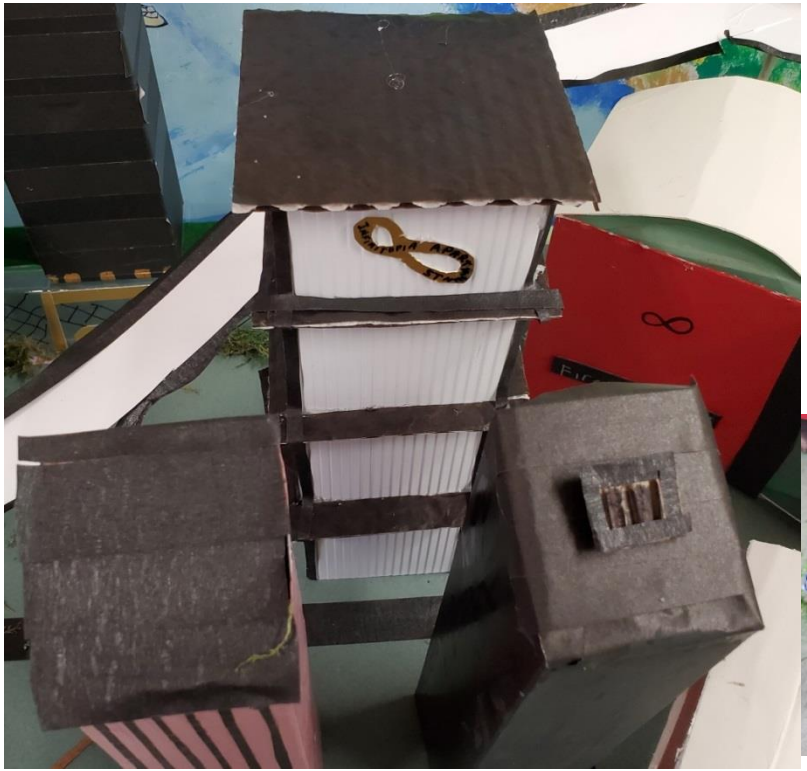


<u>Water system</u>

Our roofs are designed in layers of vegetation, gravel, and other natural materials to control water irrigation, drainage, and filtration.

Our buildings are constructed with natural resources such as green roof infrastructures. Civil Engineers and Landscape Architects design roofs and our surrounding environment to control water treatment and storage with storm-water runoff mitigation. Our residence enjoy having plenty of crystal clean water to drink. The collected gray water is used to water plants, wash and for their toilets.

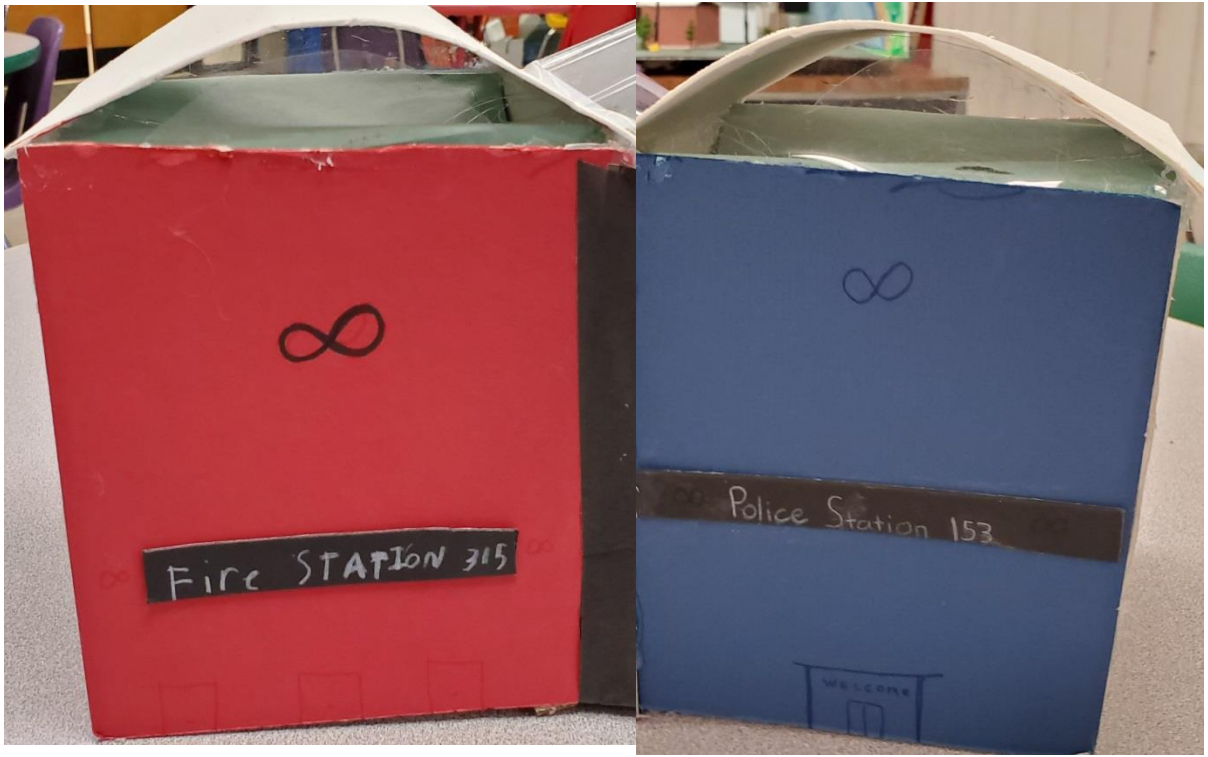
Infrastructure Example 2



Solar Energy Power

Our homes are well insulated with natural materials and they use the green roof as well as a passive solar shading system to control interior temperature, therefore reducing the energy drain of heaters and air conditioning. Our homes are powered by state of the art solar energy integrated into our rooftop gardens and embedded into our windows.
Throughout the city we have Solar Daisies, a clean unique way of collecting and distributing the suns energy while blending in with nature.

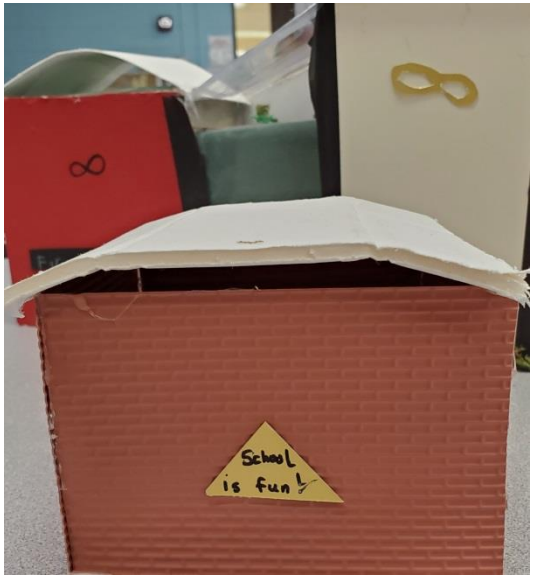
City Services Example 1



Fire, Police, and Ambulatory Departments

Throughout the city, there are service centers with police and fire departments. All our facilities use innovative waste-free technology.

City Services Example 2



Community Center, Hospital, and Schools

Throughout the city, there are community centers which include gyms, meeting rooms, and clinics. Our citizens can exercise, play sports, get physical therapy, visit their doctor or dentist, or just meet some friends in our arboretum. All our facilities use innovative waste-free technology.

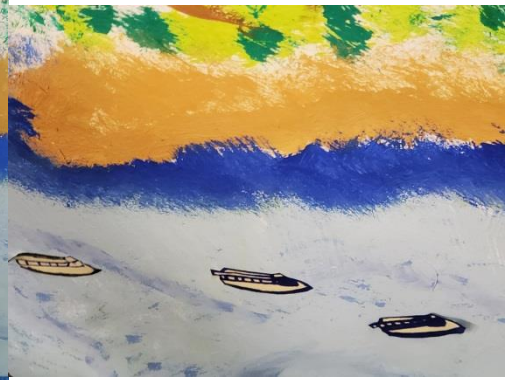
In our world class education system, core concepts of a circular economy were integrated with new career paths, such as Circular Engineers.

Transportation Example 1

We offer a variety of public transportation options
such as
Buses, Trolleys and Trains

Infinitopia's transportation is powered by clean and renewable energy. Our self driving buses, trains, and trolleys are controlled by intelligent computer programs that not only drive the vehicles but optimize their transportation scheduling and energy consumption We also offer a variety of public transportation throughout the city which reduces traffic and pollution. Instead of large parking lots, we have many lush gardens and parks for our communities to enjoy.

Transportation Example 2



Water Taxis

The city of Infinitopia is located along the Nhundiaquara river.

We have several Solar powered Water Taxis which travel along the Nhundiaquara River. Our citizens can sit back and relax while enjoying the views of our enchanting forests, exquisite mountains, and a serene bay.

Principles of a Circular Economy in Action - Example 1

Since Infinitopia offers a large variety of public transportation, we were able to design out the large parking lots. Instead, we have many lush gardens and parks for our communities to enjoy.

In our gardens, we have nature inspired Solar Daisies to help power our city. Our Solar Daisies are made with recycled glass and metals. Our Solar energy daisies efficiently collect and distribute electricity throughout Infinitopia.

These beautiful parks and daises help keep our air clean and citizens healthy.

Principles of a Circular Economy in Action - Example 2

Our Agricultural Engineers designed sustainable gardens that produced healthy and nutritious foods. The unavoidable food waste is used as raw material. Our food scientists designed out plastics and made edible packaging, dishware, utensils, and straws.

This fashionable purse is made of shrimp shells and bamboo fibers.

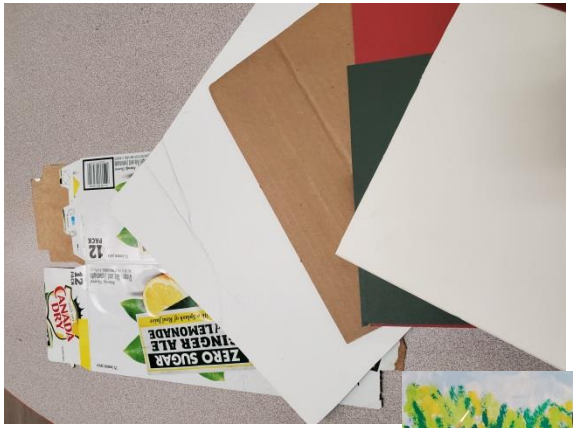
Principles of a Circular Economy in Action - Example 3

Our citizens are required to bring unused items to their appropriate return centers throughout the city. Unused items such as an empty jar can be sterilized and refilled. Old prescription glasses can be refurbished and used by another citizen. Tattered shirts are upcycled into a fashionable bag or a useful rug. One reason why Infinitopia is a successful city is because our citizens share and return unused products to be regenerated and reinvested in our society.

Section II

BUILD IT: QUALITY, SCALE, AND MATERIALS

Innovative Material & Use Example 1



Our buildings were made with Cardboard and Scrap matting from a frame company.

We used an exacta knife to cut straight lines and notches.
We taped and glued the pieces together. We choose colors that were earth tones (reds, brown, green, black) to simulate the clay and natural materials used to build our structures.

Innovative Material & Use Example 2

Details for our building construction was manufactured using a variety of packaging materials such as gold tea paper, Styrofoam and plastics

Innovative Material & Use Example 3

Cleaned Chinese chopsticks were repurposed as post for our elevated infinity train track loop.

Example of Scale

Scale used in model **1” = 30’**

<u>Structure 1</u>

-What type of structure is this?: *Buildings like the Mall and industry*

-What size is the structure on the model?: *Our Buildings ranged from 5 to 20 inches tall, 3 to 10 inches wide and long. This made our buildings 10 to 60 stories high.*

-What size would this structure be in real life?:150 to 600 ft tall, 90 to 300 ft wide.

<u>Structure 2</u>

-What type of structure is this?: *Train*

-What size is the structure on the model?: 1/3 inch wide, 1 2/3 inch long, 1/3 inch high

-What size would this structure be in real life?: 10 ft wide, 50 ft long, 10 feet high

Moving Part

- https://youtu.be/3k4hEP9-oDk

- **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

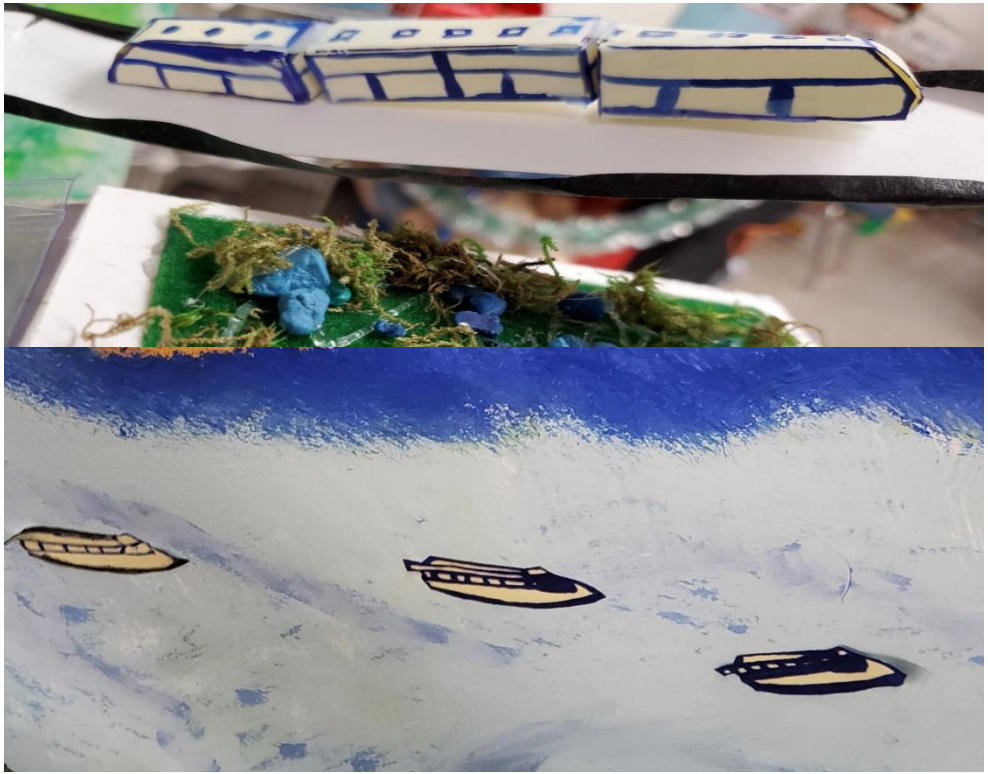
Futuristic Technology Example 1

Our solar daisies rotate with the sun to maximize the energy collection in our city.

They are all manufacture from recycled rubber, glass, and metals which were all chosen for their property integrity when recycled.

They add a unique beauty to our parks while keeping our city powered with clean renewable energy.

Futuristic Technology Example 2



Our self driving busses, trains, water taxis, and trolleys are controlled by intelligent computer programs that not only drive the vehicles but optimize their transportation scheduling and energy consumption.