



# 2021-2022 City Model Slideshow

School/Organization: **Central Jersey College Prep Charter School**

Educator Name: **Ms. Nima Amin**

Future City Team Name: **Viridis!**

# 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](https://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 zone is composed of many homes in one community. Keeping all our residents in one place allows for a friendly community and transportation to be less of a hassle. There is a saltwater powered bus that takes worker to their jobs. There is a large recreational park near this community to help kids stay active.

# Commercial Zone



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

Our commercial zone is purely supported by the agriculture sector, we have farmers markets and local owned shops that support our economy. We also include solar panels to help support our local businesses without their need to pay for power.

# Industrial Zone



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

Our industrial complex uses geothermal energy to provide power lines throughout the city, since we are on an island, water is provided using saltwater filters to clean our water to drink. The infrastructure is found under the city and is used to power and support every building in the country.

# Infrastructure Example 1

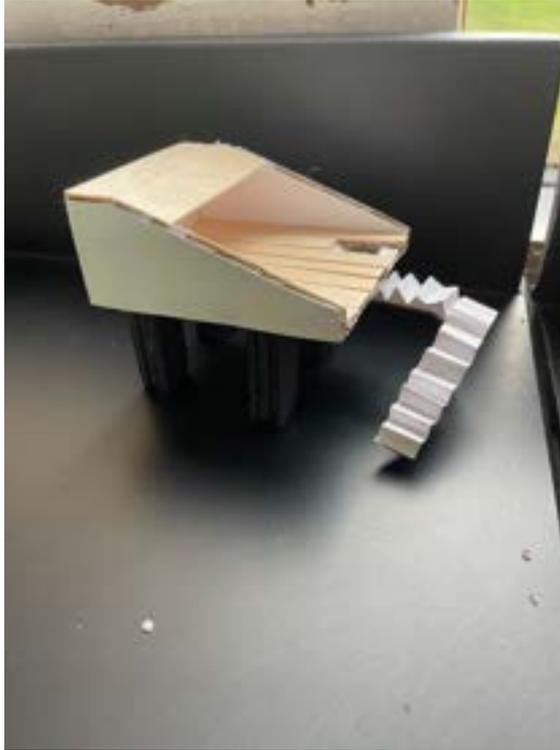


What type(s) of infrastructure are shown here (water, power, utilities, etc.)?:

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

Our infrastructure uses geothermal energy to provide electricity for our residential and commercial areas. There are wires connected to stations right outside the volcano that gives us geothermal power.

## Infrastructure Example 2



Recycled plastic lumber is an alternative to traditional building materials like wood, metal and concrete. Our city uses recycled plastic lumber which is sourced from post-consumer and post-industrial recyclables like milk jugs and laundry detergent bottles and is manufactured from recycled content. Not only is it recycled, but it is also recyclable. At the end of the project life-cycle, the material can be reused and repurposed.

# City Services Example 1



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

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

Our healthcare system is a great one: free healthcare for all. Everyone has equal access to the top of the line healthcare by our world renowned healthcare professionals.

## City Services Example 2



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

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

Education is of paramount importance to all students as well as the members of our city. We strive to preserve our education system so that it helps us in preserving our knowledge.

# Transportation Example 1



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

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

Most residents walk or bike around the city. We do offer public transportation via bus and boats.

# Transportation Example 2



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

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

Most residents walk or bike around the city. We do offer public transportation via bus and boats.

# Principles of a Circular Economy in Action - Example 1



Recycled items are moved to a recycling center where they can be sorted by material. They are then to be shipped to manufacturing companies to be turned into new products. The non reusable items are used as an energy source through waste-to-energy technology, which takes unprocessed municipal solid waste (MSW) and incinerates it to the point of heat release. This heat is used to turn water in a boiler into steam, which turns the blades of a turbine generator to produce electricity.

# 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?:

Keep products and materials in use for a longer amount of time. The citizens of Viridis! made minor changes, but made a significant difference. The city has container deposit schemes, meaning that beverage industries must ensure that a system is established to recycle/reuse their containers and products. These miniscule changes led to a newfound ability to keep materials and products in use for longer periods of time.

# 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?:

Greenhouses are eco-friendly and sustainable houses which help you reduce energy bill which is beneficial for the environment.

## **Section II**

# **BUILD IT: QUALITY, SCALE, AND MATERIALS**

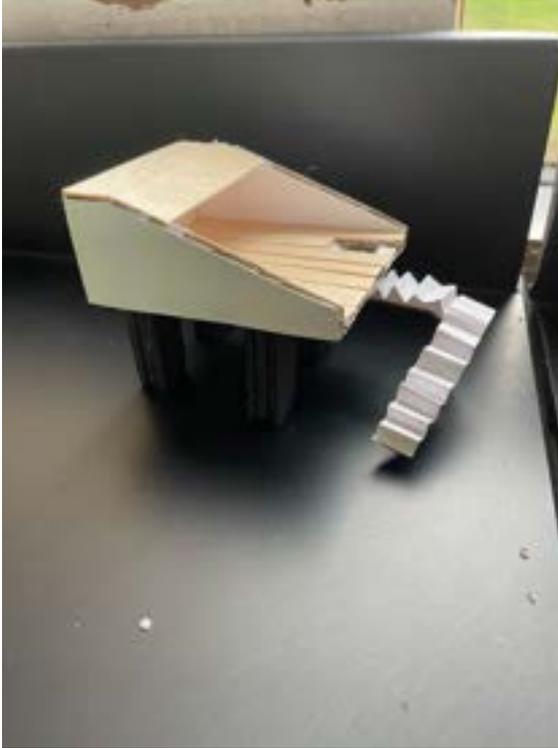
# Innovative Material & Use Example 1



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

We were able to build a playground using recycled materials like pipe cleaners, construction paper, toothpicks and popsicle sticks.

# Innovative Material & Use Example 2



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

We used cardboard and construction paper to build houses that are built around the water.

# Innovative Material & Use Example 3



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

Our barn is made out of cardboard that was recycled.

# Example of Scale



Scale used in model (Structure 1: 1 inch= 10 feet Structure 2: 1 inch 5 feet)

## **Structure 1**

What type of structure is this?: houses

What size is the structure on the model?: 2 inches

What size would this structure be in real life?: 20 feet

## **Structure 2**

What type of structure is this?: water fountain

What size is the structure on the model?: 1 inch

What size would this structure be in real life?: 5 feet

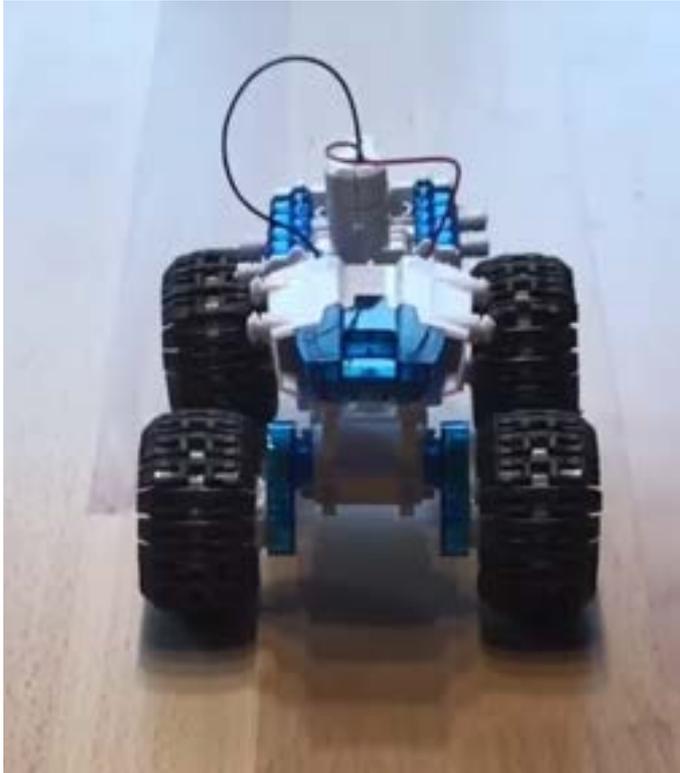
Moving Part

## **Section III**

# **JUDGE ASSESSMENT OF MODEL**

# Futuristic Technology

## Example 1

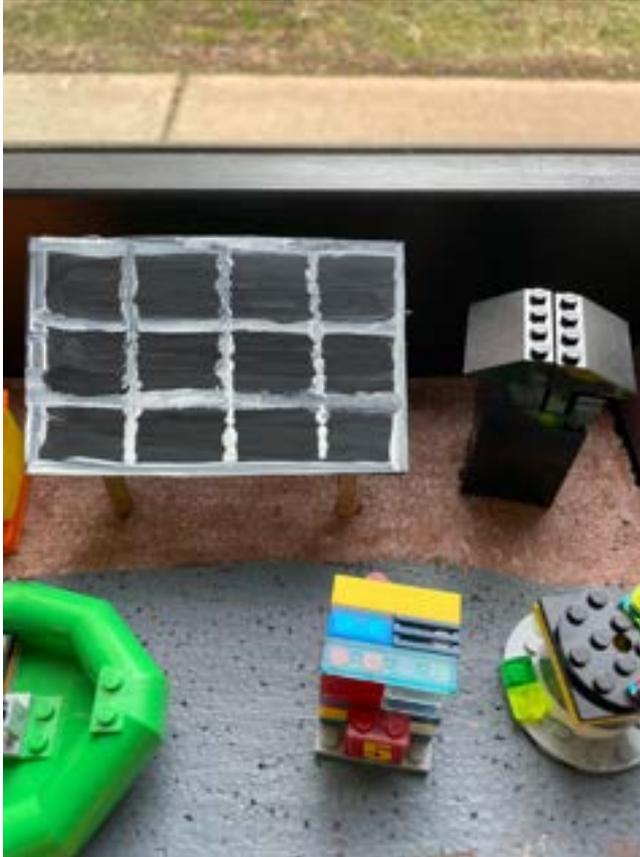


What is important for the judges to know about this example of technology?:

In this car's fuel cell, magnesium is the anode and the porous carbon sheet is the cathode. Saltwater gradually dissolves the magnesium sheet, the oxidizing agent, producing hydrogen ions. These ions then travel to the cathode, creating an electric current. A 3v dc motor is then used to convert the chemical energy into mechanical energy. The motor is attached to two wires which are attached to the anode and cathode, so the motor is connected to the salt water and the reaction. The car works when the motor is affixed to a gear, which is connected to another gear, which then joins to the wheels. The running motor makes the gears and wheels work. There are salt water stations spread around the city to provide fuel in place of gas stations. The excess water in the fuel will evaporate into the atmosphere harmlessly. The cars are also affordable, therefore inclining more people to buy them. Residents implemented this major innovation as a way to regenerate natural systems.

# Futuristic Technology

## Example 2



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

Solar power systems derive clean, pure energy from the sun. Installing solar panels on everything in the city helps combat greenhouse gas emissions and use less fossil fuels.