Build-A-City

City Planner

Notebook

Build A City!

Congratulations! You have been hired as a new engineer to design and build a brand new city! We need your help to put our new city together, but it won't be an easy task. Our city needs many buildings so that people will want to live here and will be able to get the things that they need, but we only have a limited amount of space. We hired you because you are the best and brightest, so we hope you are up to the task!

The city needs the following buildings:

- Courthouse or town center
- Hospital
- Bank
- Grocery store
- School
- Library
- City park
- Fire Station
- Houses

We ask that you follow these guidelines for the city:

1. The courthouse or town center must be in the center of the city.
2. Each building must have a base area of 64 dots, but the houses can have a base of 16 dots.
3. You must have two dots in between buildings for streets. You need roads to get to the other buildings, right?
4. Your city can't go outside of the area that is given to you.

We thank you for your help in building our beautiful new city!
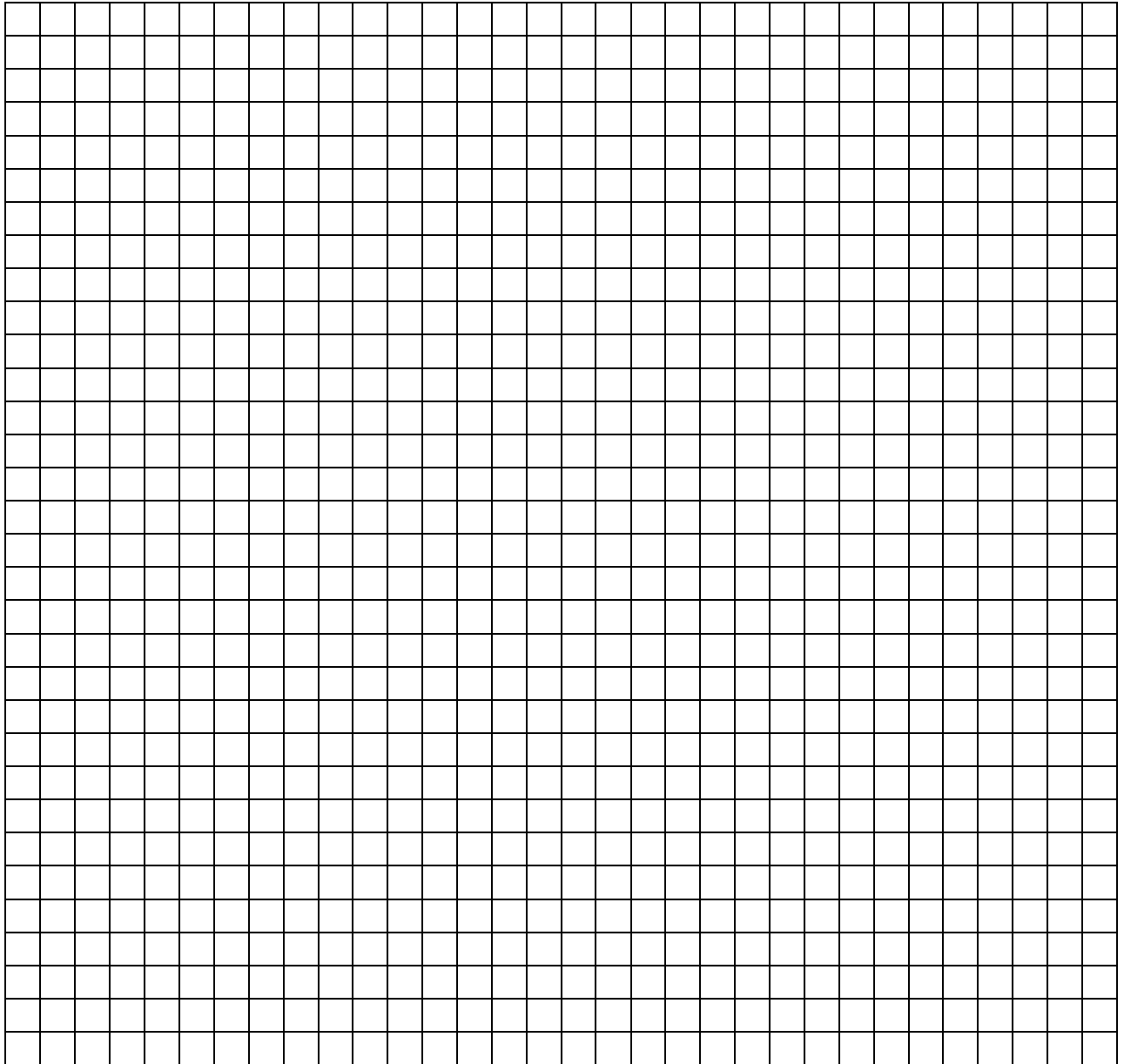
Signed,

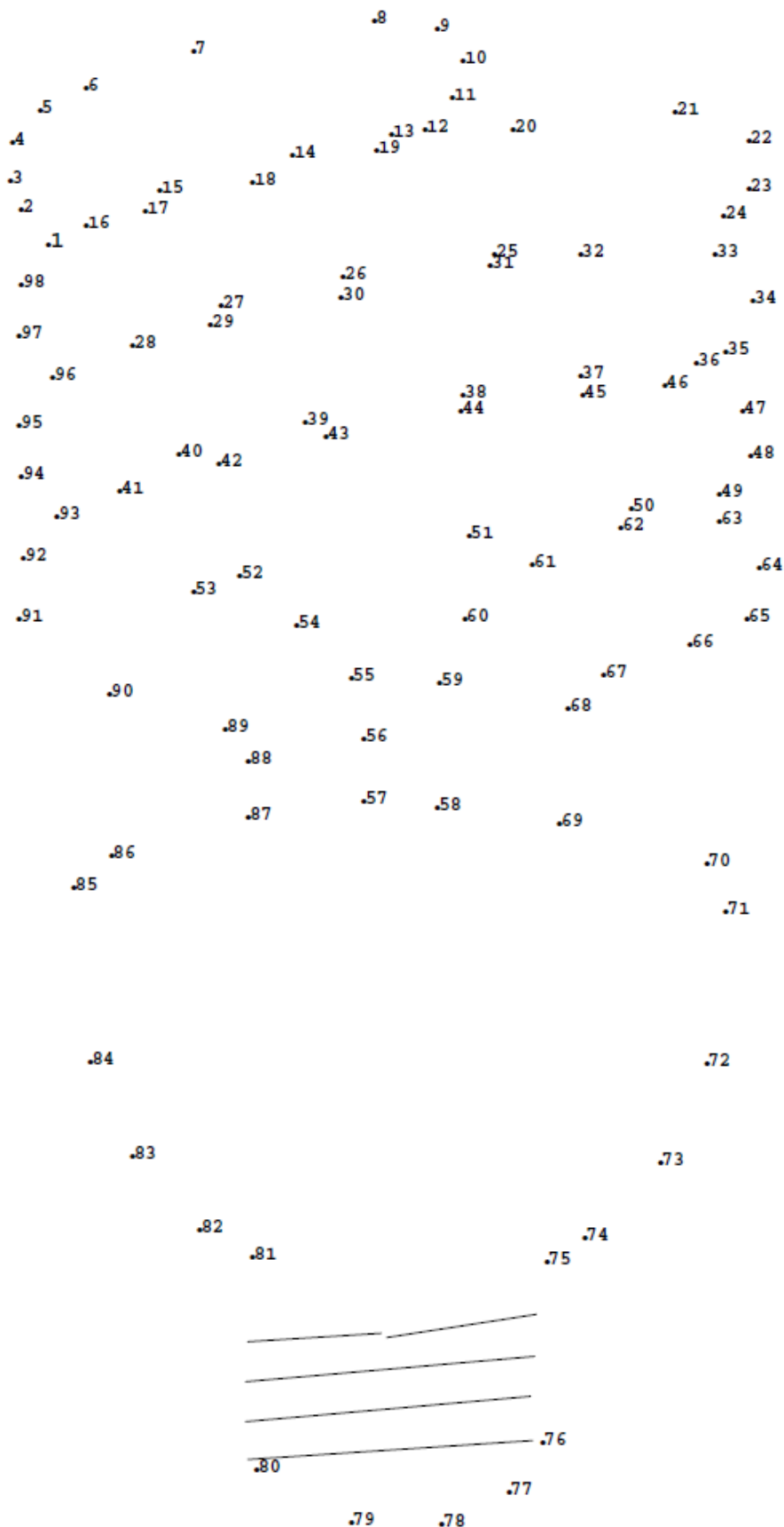The Mayor

Build A City! - Checklist

_____   Built a courthouse (10 points)

_____   The courthouse is in the center of the city (4 points)

_____   Built a hospital (10 points)

_____   Built a bank (10 points)

_____   The bank is next to the hospital (-4 points)

_____   Built a grocery store (10 points)

_____   Built a library (10 points)

_____   Built a fire station (10 points)

_____   The fire station is made of red bricks (4 points)

_____   Built a house (2 points)

_____   Built a school (10 points)

_____   The school is near the housing (4 points)

_____   Built a park (10 points)

_____   Any building covers more dots than the park does (-6 points)

_____   The park is more than one brick high (-4 points)

_____   All streets are two dots wide (6 points)

_____   Parking areas are provided (4 points)

_____   A building is more than ten bricks high (-6 points)

_____   Buildings taller than one brick will receive one point per story.

TOTAL:

_____

Plan Your City

You can't have a city without LIGHTS!

A lot of things in your home rely on electric power to run them such as your appliances, air-conditioning, heating, and of course your lights. But, many people in cities are having troubles with their electricity in their homes because their power systems are old and don't work correctly. Sometimes when a city uses too much electricity, such as in the summertime when everyone is running their air conditioners, the power plant becomes overloaded and a blackout happens.

This is not the only problem, though. We need to also find a way to not depend on fossil fuels such as coal and oil to generate our power. Engineers and scientists are working on ways to make renewable energy sources such as water power, wind power, and solar power to be a cleaner and cheaper energy option. After all, sunlight is free!

One way we can use renewable energy and fix our old power system is to use a Smart Grid. A Smart Grid is like a regular power system, but a Smart Grid will watch how much electricity everyone is using. If people aren't using as much electricity, then the power plant won't make as much electricity so that it doesn't waste any energy to make electricity people won't use. Plus, you can use renewable energy sources to create electricity for the Smart Grid too!

Urban Development

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K I V K N G Q B B J T Q E Q I
P O P U L A T I O N V I H B O
L E R U T C U R T S A R F N I
T N E R O K E N Y S P T T E M
P D G B B E Z C A E V B M H B
O F A A L L J Y Y E T C H R L
L A W N A E B T X T M E I O M
L V E I R C J I N E X D A E Q
U Z S Z U T B C G P G N T M W
T P E A R R G W A E Z S E S J
I Q K T B I J N S W Y N S W H
O Q Q I F C S F B S B M F O L
N G L O C I U O O H G M L L N
J L U N O T Q C Q G A Q F J B
D B G N V Y E U C K H E G B Q
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ECOSYSTEM
INFRASTRUCTURE
POLLUTION
SEWAGE
URBANIZATION
RURAL
EXPANSION
ELECTRICITY
BRIDGE
POPULATION
CITY

Ecosystem: A system formed by the interaction of a community of organisms with their environment.

Infrastructure: The basic, underlying framework or features of a system or organization.

Pollution: The introduction of harmful substances or products into the environment.

Sewage: Waste matter that passes through sewers.

Urbanization: Taking on the characteristics of a city.

Rural: Taking on the characteristics of the country, country life.

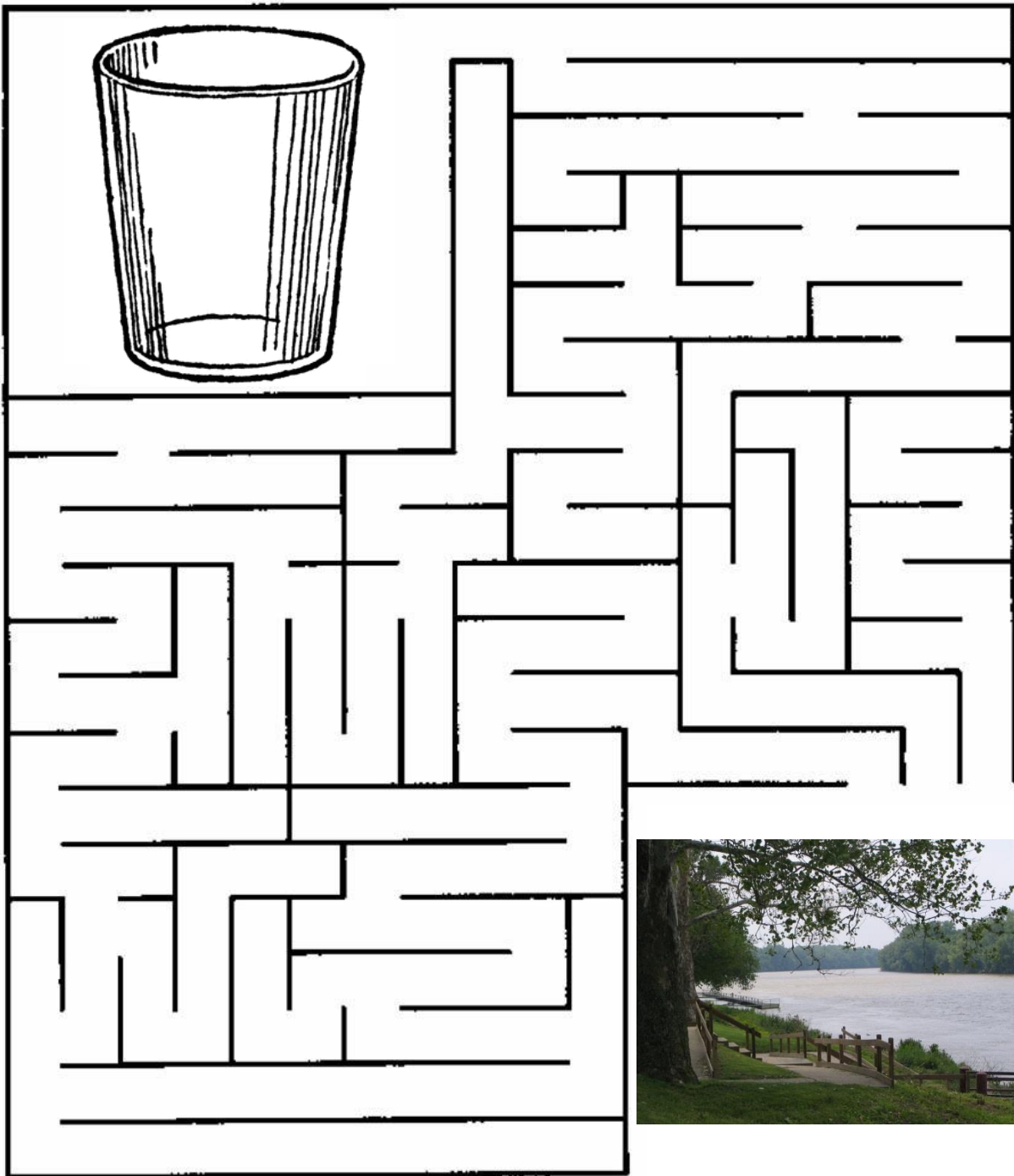Expansion: The act or process of expanding

Electricity: The science dealing with electric charges and currents

Bridge: A structure spanning and providing passage over a river or road.

Population: Total number of persons inhabiting a country, city, or any district or area.

City: Large or important town

Get the water from the river to your cup

Water System Steps:
1. Water source (ocean, lake, river, or well)
2. Cleaning (dirt and chemicals)
3. Pumps and pipes (get clean water to houses)
4. Faucet (turn on water)
5. Cup (or pot, or water bottle, or dog bowl…)