

FOURTH GRADE

BUILD A CITY

PROJECT-BASED LEARNING UNIT IN INNOVATION LAB



NAME _____ CLASSROOM TEACHER _____



Get ready to think like an architect, engineer, and city planner! In this new project, you'll design your very own city from the ground up. You'll make important decisions about where to put homes, schools, parks, and businesses, and think through how your city will run smoothly. Using math, science, creativity, and teamwork, you'll plan roads, design buildings, and even create a 3D model of your dream city. By the end of this project, you'll see how all the pieces of a community fit together!

1

**What are the important areas, businesses or features that make up a city?
Let's brainstorm and talk about it!**

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Key Vocabulary Words

In our “Build a City” unit, learning key vocabulary will help you better understand how cities are built and function. Words like infrastructure, community, zoning, grid, and transit explain the essential parts of a city and how they work together. Let’s define the following words.

Infrastructure _____

Community _____

Zoning _____

Blueprint _____

Grid _____

Landmark _____

Residential _____

Commercial _____

Industrial _____

Transit _____

Intersection _____

Bridge _____

Highway _____

3

What will your city job be?

Building a city takes a team of people with different jobs. Architects design how the buildings will look. Construction workers build the roads, buildings, and homes. City Planners decide where things like parks, schools, and stores should go, and Engineers solve problems and make sure everything works properly. All of these jobs work together to make a city a great place to live, work, and play!

Construction Worker

Builds buildings, roads, and bridges using tools and machines.

Architect

Designs what buildings will look like and makes sure they are safe and strong.

Engineer

Solves problems and plans how things work, like roads, power lines, or water systems.

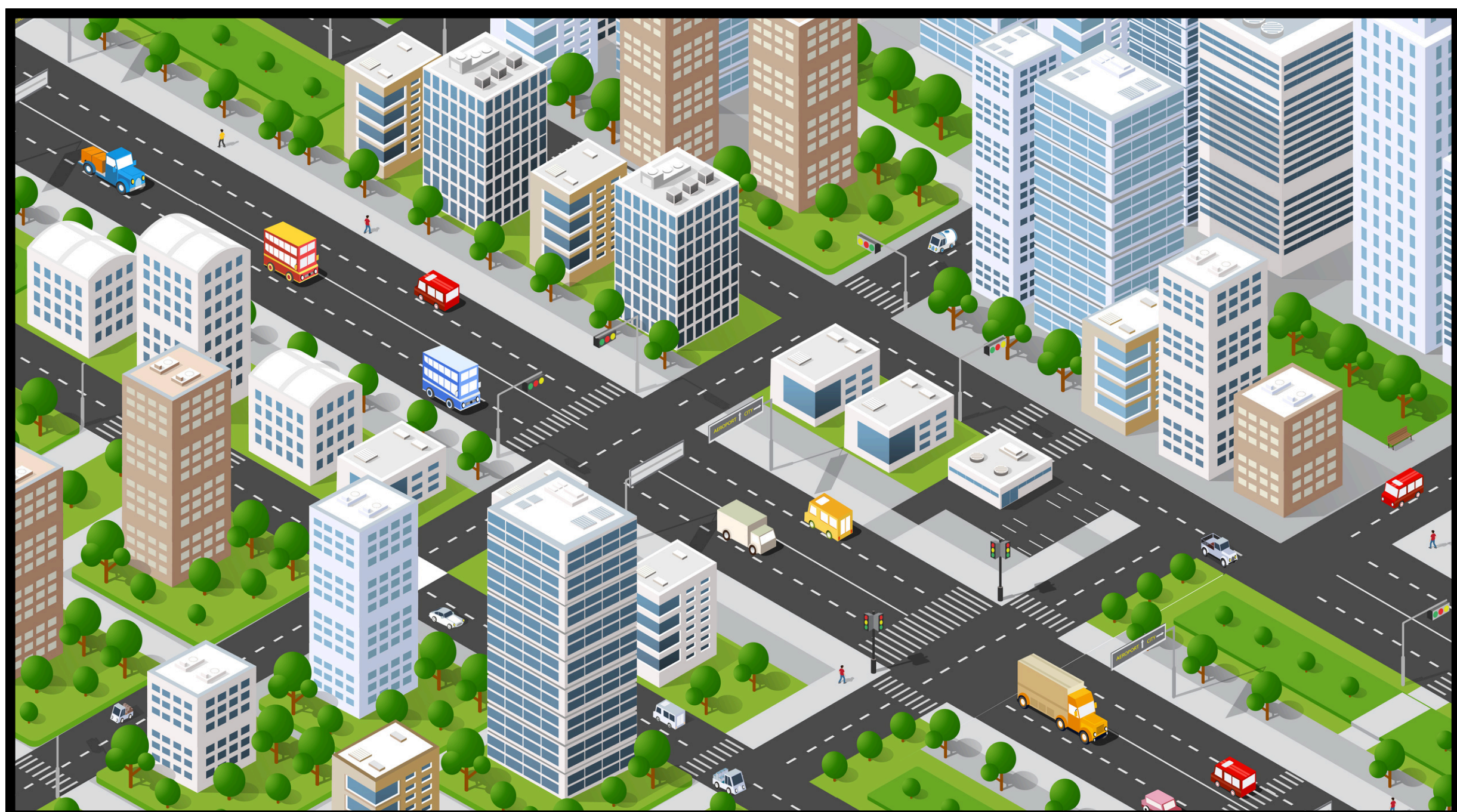
City Planner

Decides where things go in a city, like parks, schools, stores, and neighborhoods.

Landscaper

Plans and takes care of outdoor spaces by planting trees, flowers, and grass.

Now, let's apply for a job in your city. Complete the job application on the next page and turn it into Mrs. Brister. You will be called on for an interview to discuss the job of your choice to see if you are the right fit for that work. Once you have talked with Mrs. Brister, she will select teams in the different areas above.



JOB APPLICATION FORM

PERSONAL:

Date

Name :

first

last

Address :

street

city

state

Zip Code :

Date of Birth :

Email :

POSITION APPLIED :

Position :

Available for Work :

EDUCATION :

Schools Attended

Years Attended

WORK EXPERIENCE :

List any work experience that you feel has prepared you for this job. (i.e. building models, planting trees, sketching or planning a project, etc.)

CERTIFICATIONS & ADDITIONAL TRAINING :

List any additional qualifications or training that could help you with this job. (i.e. boy scout/girl scout badges, certain after school activities or organizations, etc.)

I confirm that everything I've shared in this application is true and details my experience and skills.

Applicant's signature



My Job

My job for our “Build a City” unit is a _____.

The other students on my team are: _____

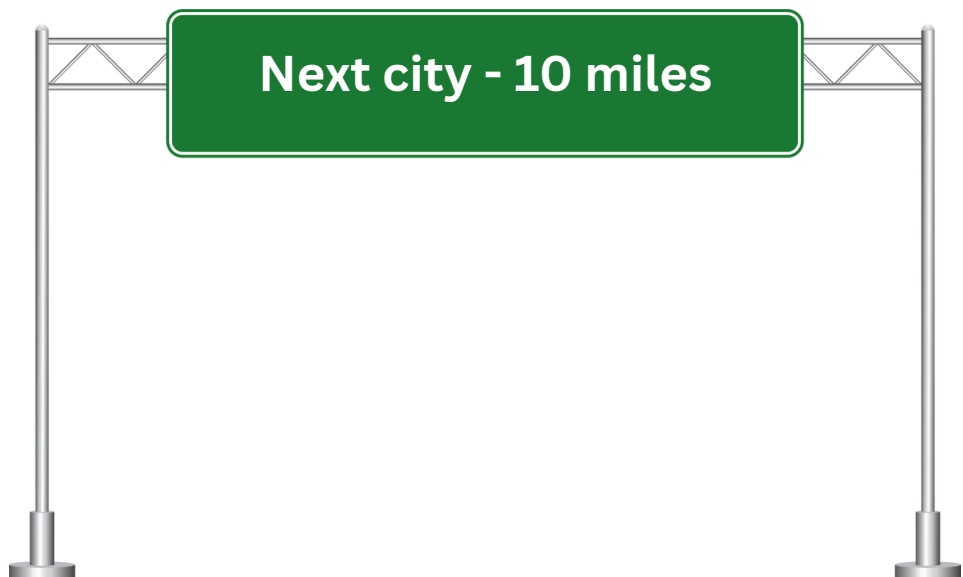
Our job duties are as follows: _____

☐ I understand that I may also be asked to assist other city workers as the project and our city develops.



What will you name your city?

The name of a city is very important because it tells a story and helps people remember it. A good city name can show what the city is all about, like its history, special landmarks, or what makes it unique. For example, "Riverside" might tell people the city is near a river, while "Sunnyville" could make them think of a bright, happy place near a beach. The name also makes your city stand out and feel like a nice place where people would want to visit or live. When you choose a name for your city, think about what makes it special and how you want others to see it! Now let’s suggest names and vote on the one we like the best. Please be serious about this as we will be sharing our cities with the teachers and other students at FPDS. On the next page, you and your team will meet and brainstorm 5 city names. You will also need to discuss why you like the names you have chosen and how you see our city developing with such names. Give this careful consideration. Once we all vote and choose a name, we will not change it .



Our City's Name

Let's Design Our City!



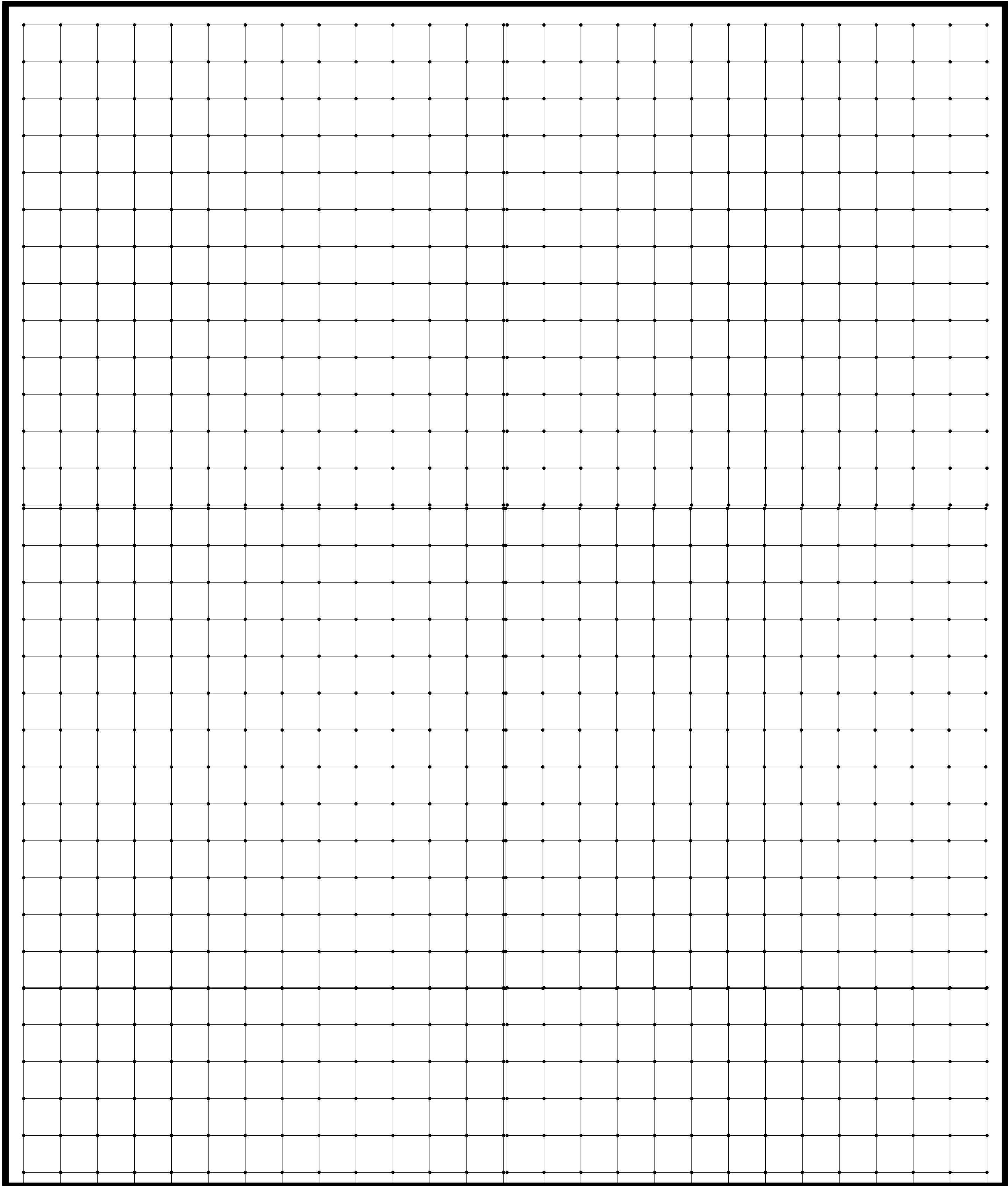
You may refer to Step 1 to recall some of the businesses, areas, and features of a city. However, let's make our city unique! What can we add to our city to make it special? What can we add to our city to attract people to visit or live there? Use the lines below to write your ideas.

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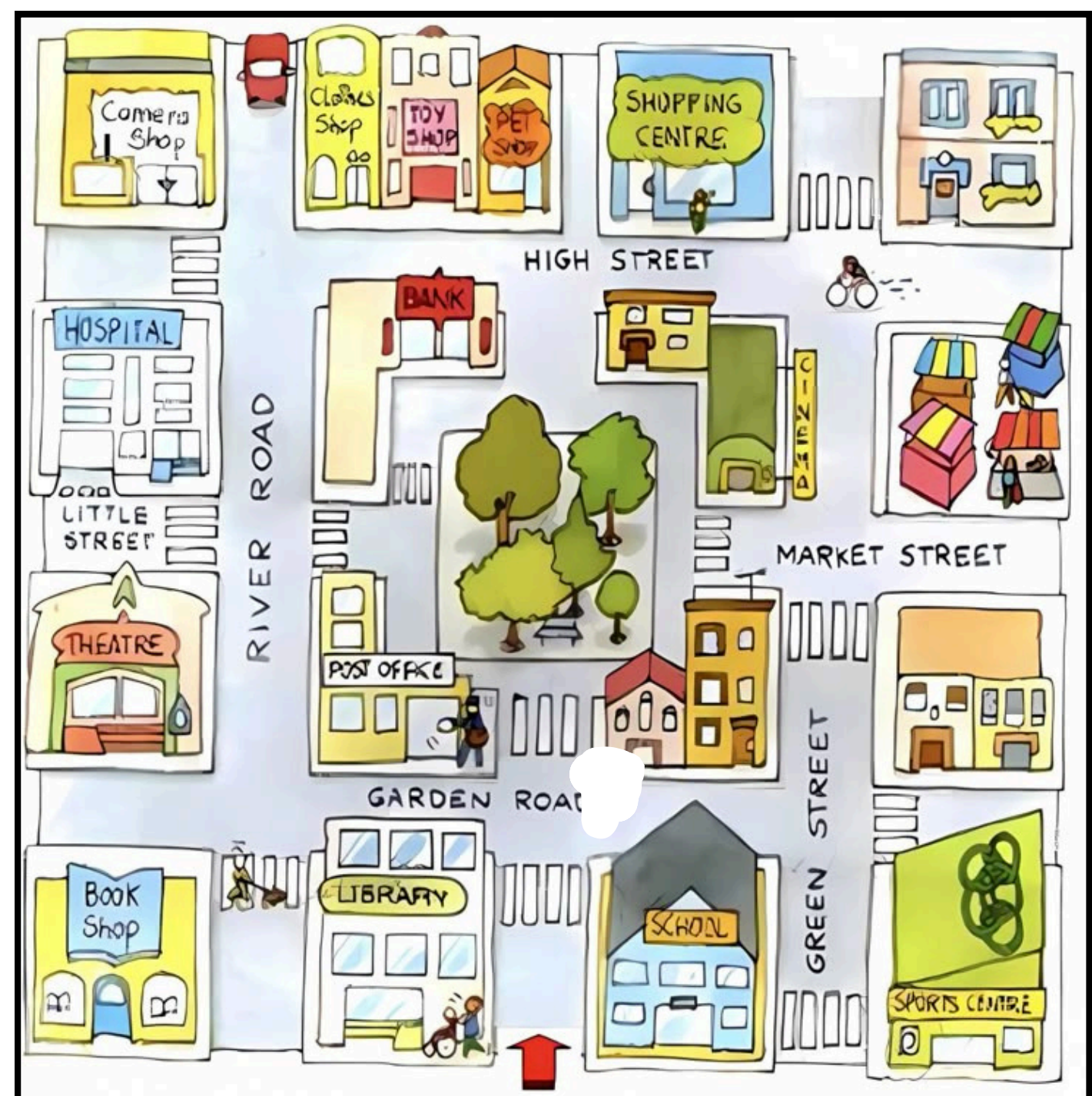
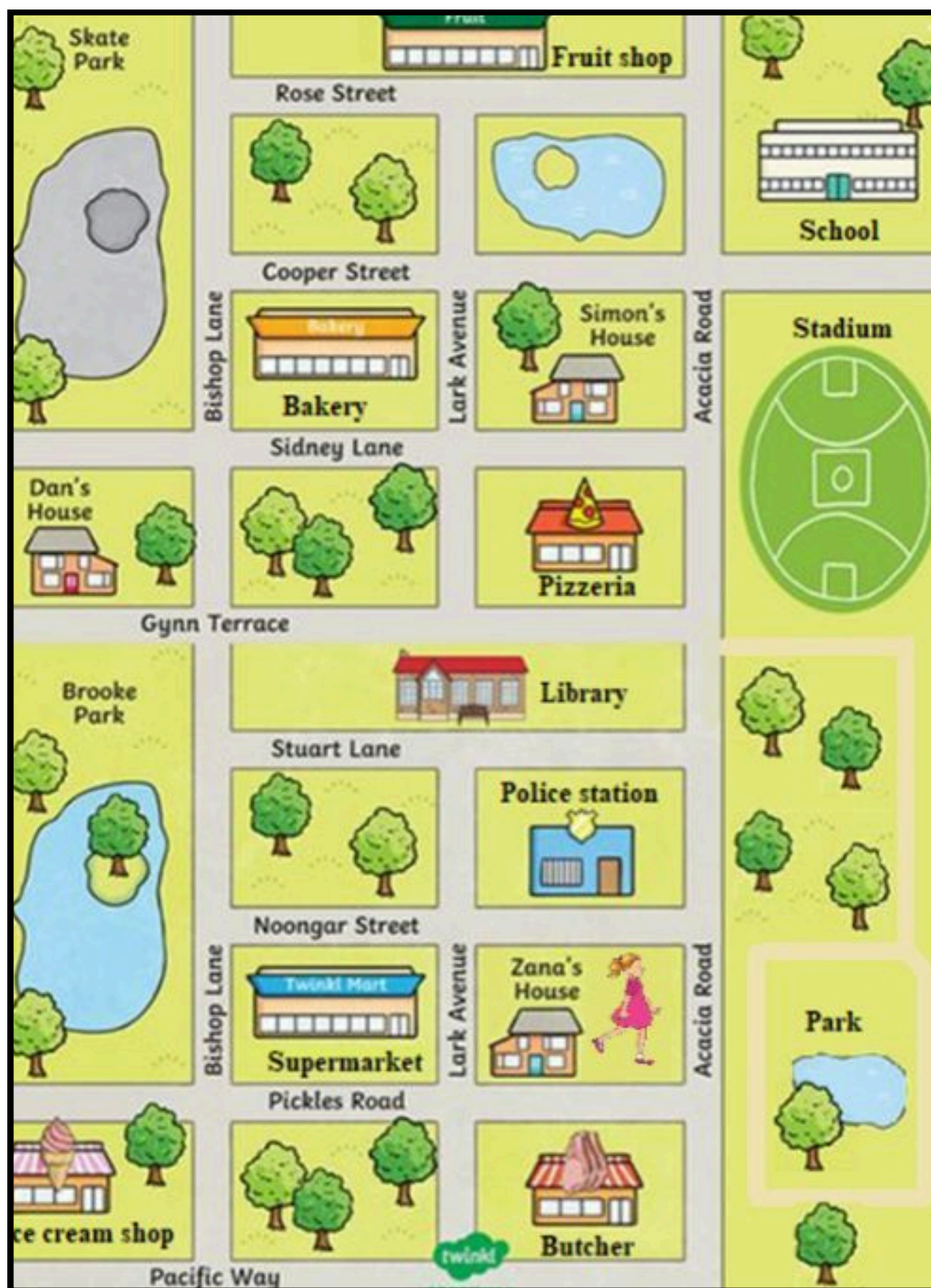
8

Sketch Your City Design

Where will your city center be? Roads, bridges, businesses, schools, churches, hospital, parks, and residential areas? You will draw your city from a birdseye view (like you are above looking down on it). Use the gridlines to help you sketch your city with somewhat normal proportions. In other words, you wouldn't have a simple house larger than a football field. Be sure to label streets, buildings, and all other areas of the city. See the following page for examples.



► EXAMPLES ◀



9

It's Time To Build Our City

Now, let's put your skills to work and build our city!

Construction Workers

This team will construct homes and buildings and place them in the city.

Architects

This team will design and color the homes and buildings for our city.

Engineers

This team will construct roadways, intersections, and bridges in our city.

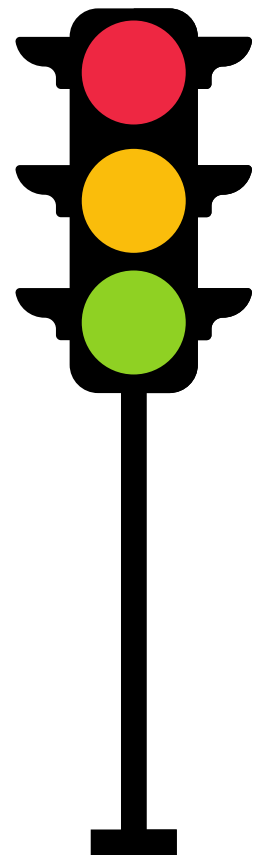
City Planners

This team will create the layout of roads, bridges, buildings, parks, and residential areas on the green butcher paper (the grid for our city).

Landscapers

This team will work with the City Planners to decide where landscaping (trees, flowers, ponds, park equipment, etc.) will go in our city.

★ See Mrs. Brister for for your supplies. ★



10

Reflecting On Our Work

Reflecting at the end of a project is important because it helps us think about what we learned, what we did well, and what we could do better next time. It gives us a chance to celebrate our hard work and notice how much we've grown. When we reflect, we can also come up with new ideas and set goals for the future. Just like athletes watch replays of their games to improve, we reflect on our work so we can keep getting better and smarter with each project we do! On the next page, please answer each question individually, completely and honestly.



REFLECTIONS

Understanding and Learning

1. What is one important thing you learned about how cities are built?
2. What did you learn about the different roles people play in building a city (like engineers, city planners, or construction workers)?
3. What was your favorite part of building your city and why?

Teamwork and Problem Solving

4. How did you work with your group to make decisions about your city?
5. Did your group have any challenges? How did you solve them?
6. What was one idea that someone else had that helped your city?

City Design and Planning

7. What does your city's name tell others about your city?
8. What did your team do to make sure your city had places where people could live, work, and have fun?
9. If you could build your city again, what would you change or do differently?

Personal Growth

10. What skills do you think you used the most during this project (like creativity, cooperation, or problem solving)?
11. What did this project help you understand better about real cities?
12. How did building a city help you think about the needs of a community?



► EXAMPLES OF “BUILD A CITY” PROJECTS ◀

