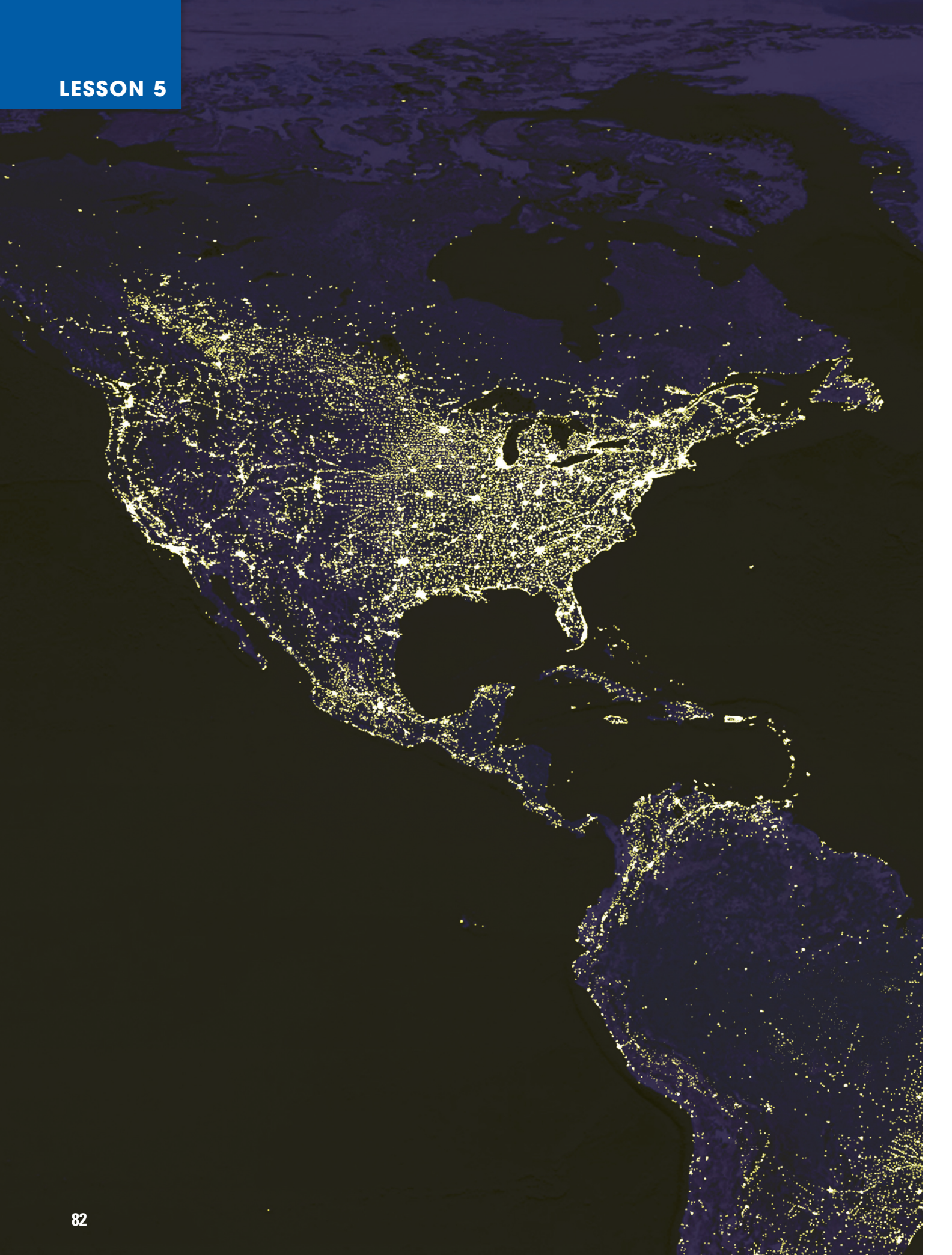# Population Density and Life in the Northeast

How do people live in the Northeast?

Introduction

Have you ever seen a photograph of the United States taken from space? During the day, you might be able to see physical features like mountains or lakes. But at night, you will not be able to see features at all. Instead, you may see many bright dots of light and you might see nothing at all.

The bright areas are where lots of people live. You see the lights of homes, businesses, street lights, and other lit objects. People live close together in towns and cities there. We can say that these areas are heavily populated. The dark areas are where fewer people live. These are less populated areas, and people live far apart there.

What do you see when you look at the photograph of the Northeast region from space? Do you notice the long, bright area near the coast? This bright area is filled with hundreds of towns and cities where millions of people live. Starting north of Boston and ending south of Washington, D.C., this series of cities stretches more than 400 miles. People sometimes call this area "Boswash."

In this lesson, you will read about the people who live in the Northeast. You will also learn how the large population affects people's daily lives.

Social Studies Vocabulary

megalopolis

population density

pollution

◀ Some areas have many lights while others do not. Bright areas on the map have more people than the dark areas.

Geography

New York City has more than 27,000 people per square mile. Small towns in the Northeast are much less crowded.

population density a measure of the average number of people living in one unit of area

1. Living in the Northeast

Where do you live? Do you live in a big city? Maybe you live in a medium-sized suburb. Maybe you even live in a small town or rural area. Each of these places has a different **population density**. Population density is a measure of how many people live in a given amount of land. It is often shown as the number of people per square mile of land. The word *per* means "for each." A square mile is a square piece of land measuring one mile on each side.

Population density affects how people live. Many rural areas often have fewer than 1,000 people per square mile. This means that there are, on average, fewer than 1,000 people living on each square mile of land. Larger areas have more than 1,000 people per square mile. Some urban areas can have over 25,000 people per square mile.

There are good things about living in both rural and urban areas. In small towns, people can get to know each other more easily, and neighbors often help each other. Life can be quiet and peaceful there.

Cities may not seem as friendly as small towns, but cities offer people more choices. There are many places to shop, and restaurants serve food from many places around the world. There are many exciting things to do in a city.
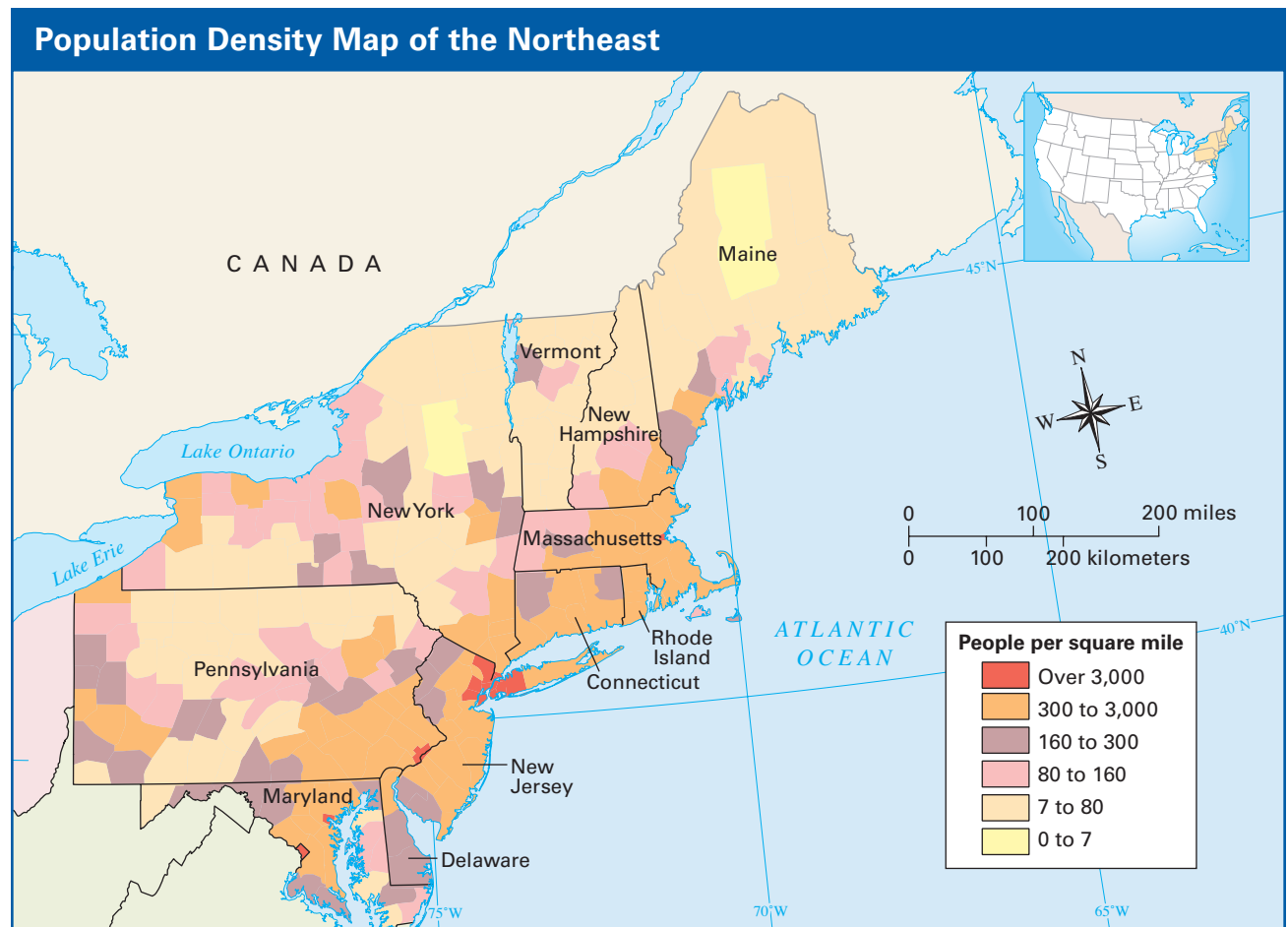
2. Reading a Population Density Map

Some maps show the population density of places in the United States. They often show how many people per square mile live in different parts of the nation. Population maps have map keys. Some population maps use colors to represent different numbers of people per square mile.

In the Northeast, population density is very high along the coast. This area is a **megalopolis**. The word megalopolis means "great city." The megalopolis of Boswash stretches from Massachusetts south through parts of Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, and Maryland.

Look at this population density map of the Northeast. What do you notice about the population density of Boswash? Now look at the states of Vermont, New Hampshire, and Maine on the map. How is the population density of these states different from that of Boswash?

megalopolis a "great city" consisting of a string of towns and cities where many people live

This map shows the population density of the Northeast. The map key shows what areas have more people per square mile.

Population Density Map of the Northeast

CANADA

Maine

Vermont

New Hampshire

45°N

Lake Ontario

New York

Massachusetts

Lake Erie

Rhode Island

Connecticut

ATLANTIC OCEAN

40°N

Pennsylvania

New Jersey

Maryland

Delaware

75°W   70°W   65°W

0   100   200 miles
0   100   200 kilometers

People per square mile
- Over 3,000
- 300 to 3,000
- 160 to 300
- 80 to 160
- 7 to 80
- 0 to 7

3. Places to Live

Population density affects people's daily lives in many ways. One way it affects people is in the kinds of homes available to them.

In densely populated cities, many people live in apartment buildings. Apartments are usually stacked on top of each other and side by side. Some apartment buildings are towering skyscrapers while others are just a few stories high.

Many people like living in apartment buildings. They may like having lots of neighbors. They may also like living near shops and restaurants.

On the other hand, people live close to each other in apartment buildings. At times neighbors can be noisy. If people play loud music or make a lot of noise in an apartment, their neighbors may not like it!

In small towns and rural areas, many people live in houses. Many houses have yards where children can play. People can make more noise in a house without bothering their neighbors.

However, taking care of a house and yard is a lot of work. Houses have to be painted and lawns have to be mowed. In the Northeast, people even have to shovel snow in winter.

Thousands of people may live on one city block. Just one family may live on several acres in the country.

4. Making a Living

Population density also affects the kind of work people do. There are many more jobs in cities than in rural areas.

Small towns and rural areas have fewer businesses. Some people may work on a farm. Others may work in stores or provide services that people need. Often, there are only a few kinds of jobs in a small town. That is one reason why some people move to cities.

There are lots of different kinds of jobs in cities. Many people who live in a city work in offices. Other people work in restaurants and stores.

Newspapers and television stations have offices in cities as well. These businesses create jobs for writers, photographers, and designers.

Cities are also centers for the arts. They attract people who want to work as actors, musicians, or artists.

Large hospitals and health care centers are located in cities. These businesses create jobs for doctors, nurses, and other health care workers.

Many people like to visit cities. Tourism is the business of taking care of people visiting a place. Tourism creates jobs for tour guides, hotel workers, taxicab drivers, and others.

Small towns often have only a few businesses, like this country store. Big cities may build new buildings for businesses every day.

In New York City, cars and taxis fill the streets. You may not see many cars in a small town.

5. Getting Around

Population density affects what types of transportation people use. Getting from place to place in a densely populated area can be difficult. Driving a car is usually the worst way to get around in big northeastern cities. Many of these cities' streets are narrow. Others are wide but crowded. Think of all the cars, buses, trucks, and taxis that fill city streets today. They cause traffic to move slowly.

It is not easy to find a place to park a car in a large city. Parking garages help solve this problem, but they can be expensive. Bicycles fit well on narrow city streets, but riding a bike in city traffic can be dangerous.

Because city streets are often crowded, many people walk wherever they want to go. For longer trips within cities, people often need to use public buses, taxis, or subway trains.

Driving is much easier in small towns. There is much less traffic, and parking is usually free. Country roads are usually safe for both cars and bikes.

However, it can be hard to get around in rural areas without a car. Many small towns in less populated areas have no public bus or taxi service. The places that people want to go may also be very far apart. This can be a problem for people who do not drive or own a car.

6. People and Pollution

Population density also affects the level of **pollution** in an area. Pollution is anything that makes our air, water, or soil dirty or unsafe to use. Many things people do cause pollution. When we toss trash on the ground, we pollute the land. When we drive cars, we pollute the air. When we dump waste into rivers, we pollute the water.

In urban areas, pollution can be a big problem. People living in cities throw away mountains of trash each day. Some of the trash can be recycled. The rest must be carried off to landfills. If left on the streets, trash attracts insects and rats. These pests often carry harmful diseases.

Air pollution is a problem as well. Smoke from cars, factories, and homes can hover over cities. This dirty air can cause our eyes to burn, and it can also damage our health.

Dirty water from city streets and sewers may run into rivers and lakes. The result is water pollution. Polluted water is not safe to drink or swim in.

In rural areas, there are fewer people to cause big pollution problems. Air and water are generally cleaner there than in cities. Without as many cars or homes, there is less smoke, so people in rural areas can look up at night and see thousands of stars.

> **pollution** any substance that makes air, water, or soil dirty or unsafe to use

Air pollution is a big issue in cities. Rural areas tend to have much cleaner air.

7. Finding Fun Things to Do

What do you do for fun on weekends? Your answer may depend partly on where you live.

People living in rural areas often enjoy outdoor activities year-round. Many people in rural areas may live close to mountains or forests. These areas are great places for people to hike and explore. Other people in small towns live near lakes or rivers. They can choose to spend their weekend fishing or swimming. They can also spend summer evenings at the movies or meeting friends for dinner.

People who live in cities can also go to the movies or eat dinner with friends, but they have different options for what they can do as well. In cities, there are many things to do close to home. Suppose that it is a sunny summer Saturday in New York City. What could you do? You might choose to

- go to a Yankees or Mets baseball game.
- tour an aircraft carrier or an old submarine.
- walk through a rainforest at the Bronx Zoo.
- explore the New York Botanical Garden.
- ride a roller coaster at Coney Island.

In the summer, people from towns of the Northeast can go hiking in mountains. People in New York City can ride this roller coaster at Coney Island.

In winter, people have other options for what they can do. During the winter, people in rural areas might enjoy the snow outside. In cities, people have many different options to choose from. Suppose that you are looking for something to do on a cold and snowy day in New York City. You might choose to

- ice skate at Rockefeller Center.
- climb the Statue of Liberty.
- create a puppet at the Children's Museum of the Arts.
- try indoor soccer or rock climbing at Chelsea Piers.
- make a movie at the American Museum of the Moving Arts.
- see a circus or a play just for kids.

There are so many options in a city that people who live in small towns might choose to go to a city for a day of fun. People that live in a city can also go to a rural area for the day.

In the winter, many people in rural communities can sled in the snow. In the city, people can go ice skating.

Lesson Summary

In this lesson, you learned how population density shapes people's daily lives. In the Northeast, many people live in very densely populated areas. But other people live in less densely populated areas. For the people of the Northeast, life in a city is very different from life in a small town.

You saw how population density of an area affects the kinds of homes people choose and the work that they do. You also saw how population density affects the types of transportation that people use, and how pollution affects different places and people in the Northeast.

Finally, you saw how population density affects what people do for fun in both rural and urban areas. Population density affects many different parts of people's lives.

Population Density in Your State

What is the population density in the area you live in? How does it compare to other areas in your state? Creating your own population density map can help you answer questions like these.

The first step in making a population density map is choosing the places you want the map to represent. For example, you might choose San Francisco, Santa Barbara, and Redding, which are all places in California.

Next, you will find the population density of each area. You need to research each place's population data. You can look at the U.S. Census Bureau Web site to get this information. Then record it on a table, like the one shown here. Divide the population by area to get the population density for each place. As you can see, population is very different from place to place.

Once you have the population information, you can make your map. First, make a map of the places you chose. In this example, you might make a map of California. You might also show physical features, landmarks, or natural resources on the map. Make sure to make a key that shows how you represent these other features. Triangles could represent mountains, and blue circles could represent lakes.

You can make a table to compare the population density of different cities.

City	Area in Square Miles	Population	People Per Square Mile
San Francisco	46.87 sq mi	837,442	17,867/sq mi
Santa Barbara	19.47 sq mi	90,412	4,644/sq mi
Redding	59.65 sq mi	91,119	1,528/sq mi
Los Angeles	468.67 sq mi	3,884,307	8,288/sq mi
Eureka	9.38 sq mi	26,913	2,869/sq mi
Merced	23.32 sq mi	81,102	3,478/sq mi
San Bernardino	59.2 sq mi	213,708	3,610/sq mi

You will also have to make a key for your map that shows population. For instance, you could use different colors to represent different numbers. Here, red is used to show population density of 15,000/sq mi and up. Look at the key. What does yellow represent? Orange?

When you make your map, use your key to mark up your map. Look at your table and read the population density for each city. Pick the appropriate color that represents it. Then mark the area of the city in this color. Look at this map of California. Which place has the lowest population density? Which has the highest?

Analyzing your map can help you understand why populations are different from place to place. San Francisco and Los Angeles are close to water. People might move there because they can easily ship goods and use natural resources from the ocean. Redding is in the mountains. Less people might move there because it is harder to get to, and they are far from water. How else does population density affect people's daily lives?

This map of California shows the population density of three cities.

California Population Density Map

Population Density
- 15,000+/sq mi
- 5,000–10,000/sq mi
- 0–5,000/sq mi

Redding

Sierra

Nevada

San Francisco

California

PACIFIC OCEAN

Los Angeles

| 0 | 100 | 200 miles |
| 0 | 100 | 200 kilometers |

Inventing New Ways of Living

The Northeast is known for its big cities with bright lights, towering buildings, and crowded streets. Whom do we have to thank for the inventions that helped make modern cities possible?

It was just one little light bulb that glowed for about 13 hours before it burned out. Yet, the people in 1879 who saw the experiment were amazed. The famous inventor had his own laboratory in Menlo Park, New Jersey. There, he and his team worked to create new inventions. Making a safe, usable light bulb was just one example.

In 1882, Thomas Edison helped create the nation's first electric power plant in New York City. The plant was powerful enough to produce electricity to light all the houses for several city blocks.

The late 1800s were an exciting time to live in a city for everybody. People were constructing taller and taller buildings, and more people began using streetcars to get around the city. Daily life was changing very rapidly. What were some of the new inventions that helped make life feel modern? Who invented them? How have those inventions helped create the cities of today?

Advertisements are a way to introduce new inventions to people. Today, old ads are a way to learn about the past.

THE NORTHAMPTON INDEPENDENT.   December 19th, 1908.

ELECTRIC NOVELTIES make USEFUL PRESENTS.

COWELL, WYATT & Co. (Complete Outfitters), 34 Abington Street (Corner of Fish Street).

Building Higher and Stronger

When you think of cities, you may picture tall buildings called skyscrapers. The first skyscraper was built in the late 1800s, but before that time, most buildings had only a few floors.

Two important inventions helped make skyscrapers possible. One was the use of steel. Steel is a strong but lightweight metal that can support a tall, thin building. In the 1850s, Henry Bessemer found a cheaper way to make the metal, which made it easier for builders to use. By using steel, builders could now build structures with ten floors or more.

This skyscraper was built in 1902. Look at the steel beams at the very top. Without steel, these skyscrapers would have never been possible.
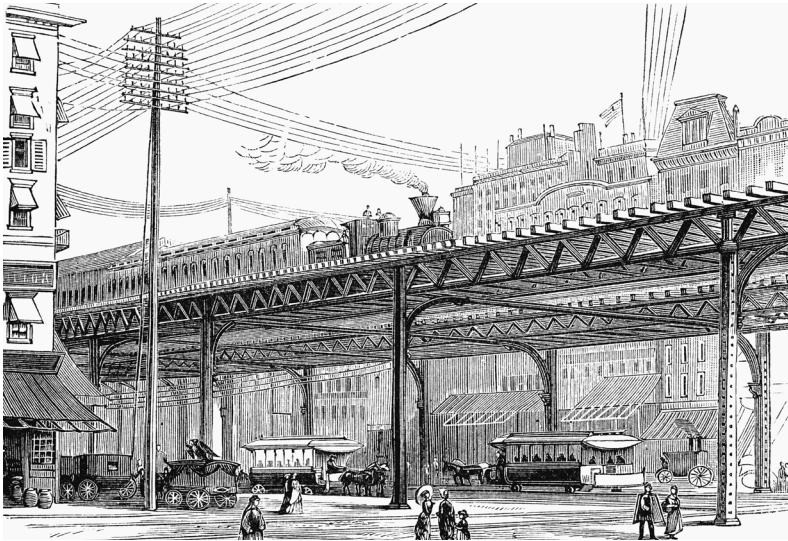
Another new invention that helped people build skyscrapers was the passenger elevator. Before elevators, few people wanted to live or work more than a few stories above the ground. Think of all the stairs they had to climb! Building owners had trouble renting out spaces on high floors, and therefore no one wanted to build tall buildings.

The first elevators were unsafe, so they were mostly used to move boxes or supplies instead of people. Elisha Otis, of Vermont, helped solve this problem. In 1853, he invented a special kind of brake that kept elevator cars from falling if their ropes broke. People felt much safer in elevators.

People began putting elevators in their buildings. People now wanted to live and work high above the city streets. It was quieter and cleaner there. Soon, skyscrapers began to appear on city streets.

Moving People Here to There

In the late 1800s, cities grew quickly. Thousands of Americans moved from farms to cities and even more people came from Europe. They crossed the ocean in boats, and many of them settled in the big cities of the Northeast. New York City's population grew more than five times bigger between 1870 and 1920.

As the cities grew larger, transportation became an immense challenge. People had to get to work. Each day, thousands of workers traveled over large areas, and more and more people crowded the streets. Many of them rode in streetcars, which were horse-drawn carriages that ran on rails. The rails helped the streetcars roll easily through town. It took fewer horses to pull more people, and fewer horses meant less crowding. It also meant less of a smelly mess on the streets.

In the late 1880s, streetcars began to run on electricity in the United States. These electric streetcars were called trolleys. A man named Granville Woods invented a system that used overhead wires to power the trolleys.
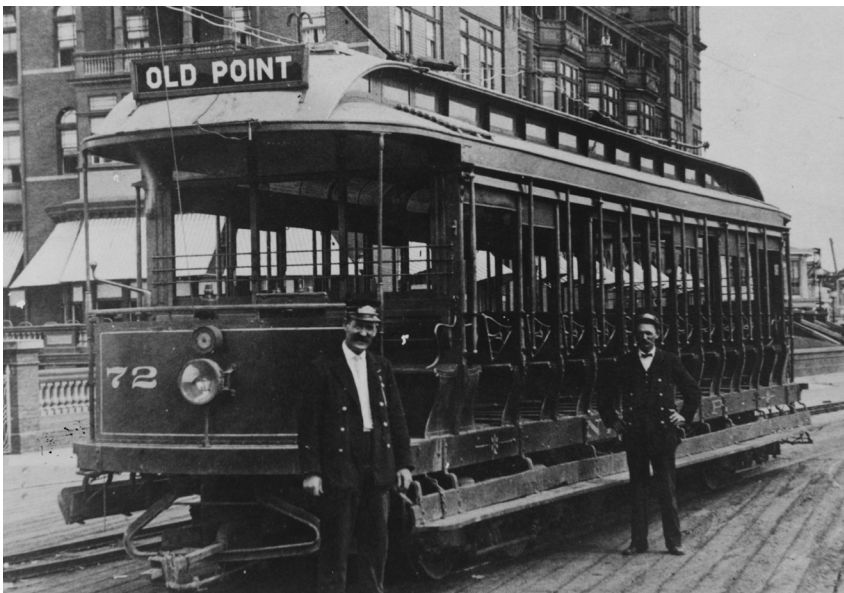
Later, some cities built subways. Unlike many other forms of transportation, subways ran underground. In 1897, Boston opened the first subway in the United States. Within 10 years, New York City and Philadelphia had subways, too.

Before New York City had subways, people often rode trains that ran on elevated tracks through the city.

Trolleys, like this one, carried people around cities. They often had no walls or windows.

Early Road Travel

Other improvements were made to transportation in big cities as well. For example, in 1870, people in Newark, New Jersey, used asphalt to pave a road. Asphalt is a tar-like material, and it can be pressed down to make smooth, hard surfaces. It makes an excellent road surface.

In the early 1900s, a new invention appeared on the road—the automobile, or car. Few people had cars in 1900, but the new machines quickly became popular. By 1920, cars filled the streets.

Trolleys and cars changed people's lives. They also changed city life forever because they made it possible for people to live far away but still work in the city. Many city people moved to homes outside the city center. These new settlements were called suburbs. Over time, suburbs grew and began to fill with more people. New suburbs formed, even farther out from the cities. The area of dense population spread outward.

Today, we can see the effects of this spread that started hundreds of years ago on the East Coast. New technology and inventions have led to dense settlement of towns and cities throughout all the regions of the United States. ◆

Before cars, people used horse-drawn carriages. The first cars were built more like these carriages than like cars made today. They were much slower and simpler than modern cars.