GETTING TO KNOW YOUR NEIGHBOR: DEMOGRAPHIC CHARACTERISTICS IN MY COMMUNITY

TEACHER VERSION

Subject Level:
Elementary School or Middle School Geography

Grade Level:
5–6

Approx. Time Required:
75 minutes

Learning Objectives:

- Students will be able to use an online tool to identify and describe the demographic characteristics of the people in their community.
- Students will be able to identify the types of services or businesses that are in demand based on the demographic characteristics of their community.
- Students will be able to analyze and help create a visual representation of data on demographic characteristics.

Activity Description

To introduce demographic characteristics to students, teachers will help them create a population pyramid. Then, students will use an online tool called QuickFacts to find census data on demographic characteristics for a county in 2024. They will compare it to older data from the same county to find changes and trends over time. They will then use QuickFacts to examine data about their school's county. Students will use this information to help them understand how business owners and community leaders use data on demographic characteristics to make decisions.

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Topics:

- Demographic characteristics
- Population pyramids

Skills Taught:

- Analyzing data
- Comparing and contrasting
- Using demographic characteristics to describe a population

Materials Required

- The student version of this activity, 6 pages
- Data from the QuickFacts online tool
  - Option 1: A computer with Internet access for each student or small groups of students (preferred)
  - Option 2: A teacher computer with Internet access and a projector to display Web sites
  - Option 3: Copies of printed QuickFacts data for each student or small groups of students for the county where the school is located (one page of data per student or small group)

Activity Item

This activity uses the following online tool:

- QuickFacts
  www.census.gov/quickfacts

For more information to help you introduce your students to the U.S. Census Bureau, read "*Census Bureau 101 for Students.*" This information sheet can be printed and passed out to your students as well.

Standards Addressed

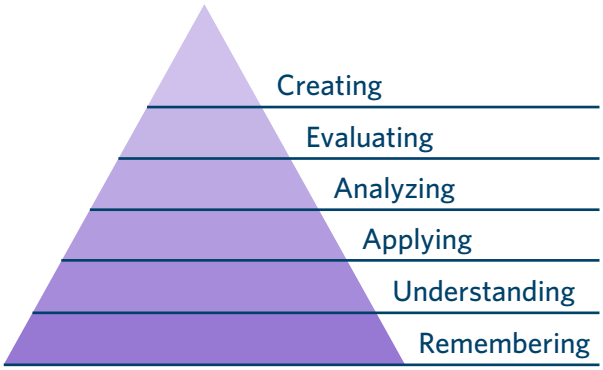
See chart below. For more information, read "*Education Standards and Guidelines Addressed by Statistics in Schools.*"

National Geography Standards

Standard	Grade	The student knows and understands:
9 - The characteristics, distribution, and migration of human populations on Earth's surface	4	**Characteristics of Population** 1. Demographic characteristics can be used to describe a population. *Therefore, the student is able to:* A. Describe and compare the demographic characteristics of people in the local area, as exemplified by being able to: • Identify and describe the demographic characteristics (e.g., age in months and sex) of the students in the classroom by constructing a population pyramid representing the student data. • Describe the demographic characteristics (e.g., age, sex, race/ethnicity) of the local community and identify the types of services or businesses that might be in demand (e.g., parks and schools for communities with younger populations, medical and senior centers for communities with older populations, restaurants and shops to meet the needs of ethnic groups). • Describe the demographic characteristics of a local county using the U.S. Census Bureau data and compare it to the prior census report to identify trends or changes in the population of the county over time.

Bloom's Taxonomy

Students will be able to ***analyze*** data about their community to determine how the data can be used to make decisions.



Teacher Notes

Before the Activity

Students must understand the following key terms:

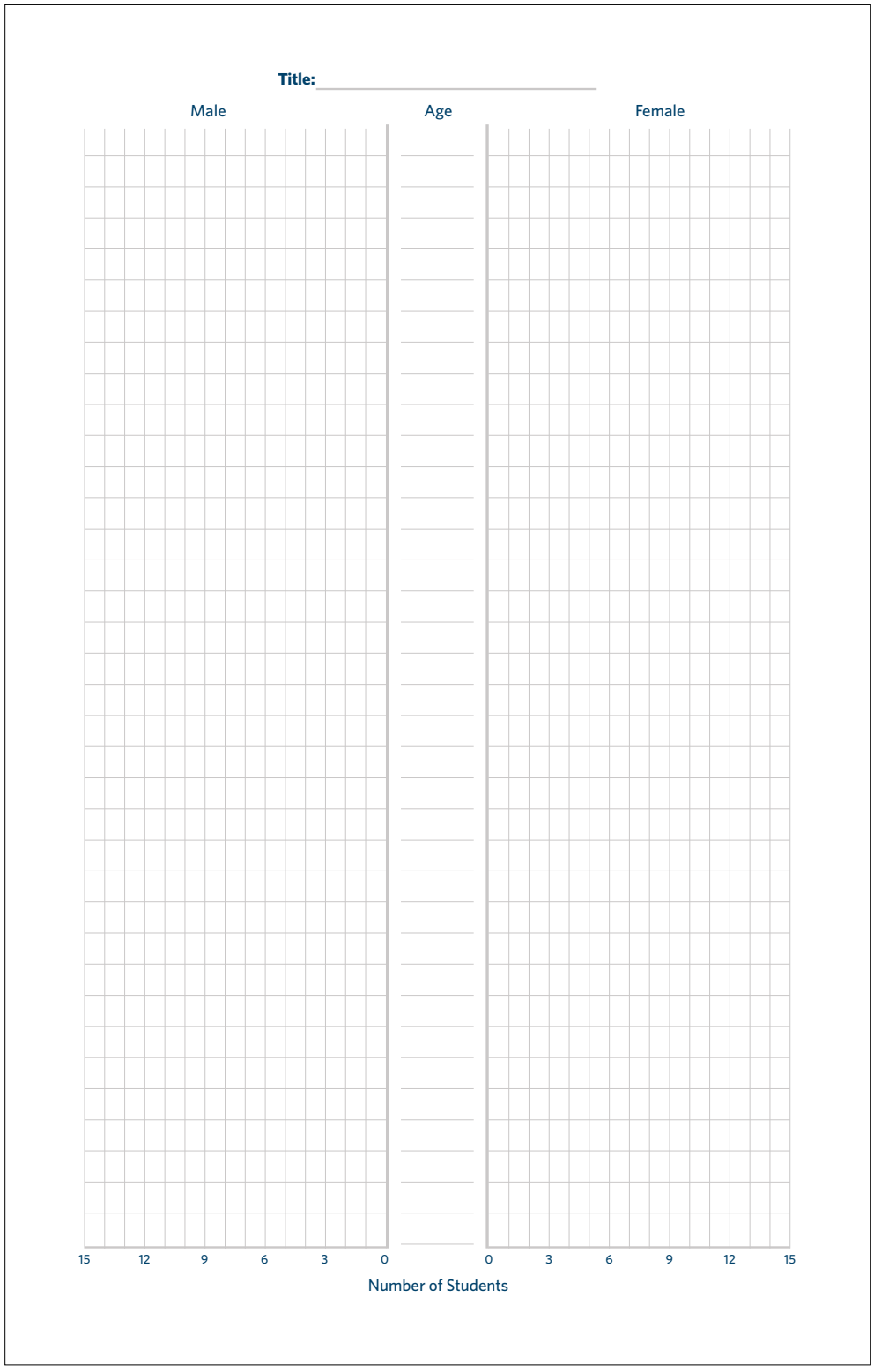
- **County** – just like the U.S. is divided into states, states are divided into counties
- **Demographic characteristics** – information about human populations, such as age, sex, and race
- **Population** – the number of people living in an area
- **Population pyramid** – a type of graph that shows how many people are in different age groups, and how many people in those age groups are male and how many are female (the graph can sometimes look like a pyramid)

Part 1 – Population Pyramids

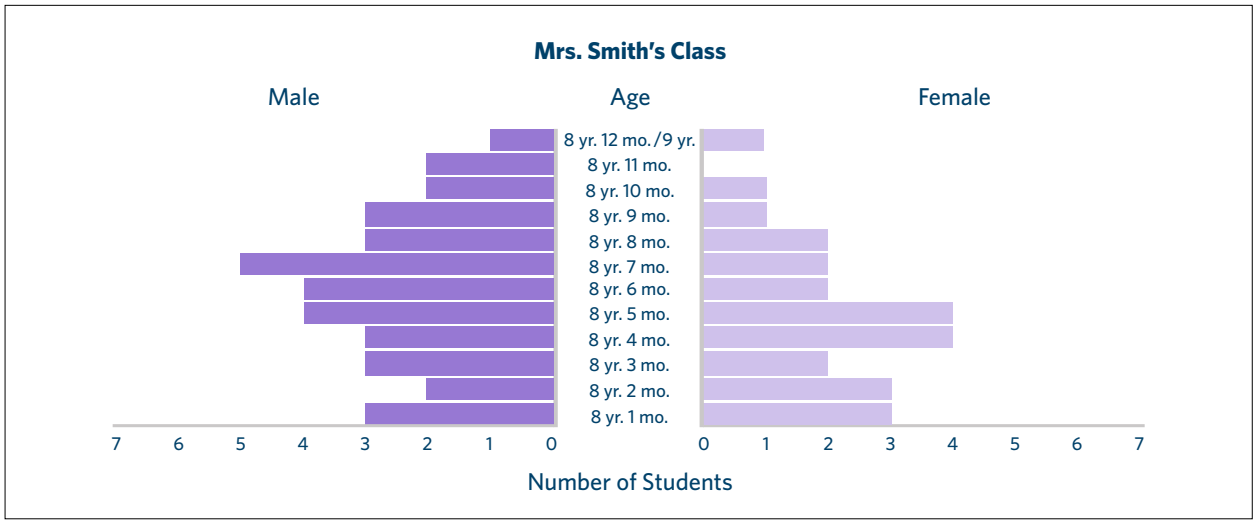
To help students understand demographic characteristics, teachers should draw a population pyramid with students' help. (See a blank version and completed example below; teachers with access to a document camera may want to put the blank version under the camera and fill it in with students) Teachers should follow these steps:

1. Point out the x-axis (number of students), and fill in the y-axis (ages of the students in your class by year and month—for example, 8 years old and 1 month, 8 years old and 2 months). Teachers may need to help students calculate exactly how old they are so they are ready for the next step.
2. Ask just your female students for a show of hands for each age listed on the y-axis, and draw the corresponding bars on the right side of the graph.
3. Ask your male students for a show of hands, drawing the corresponding bars on the left side of the graph using a different color.

Sample blank version:



Sample completed version:



Teachers should explain to students that a population pyramid is something people can use to visually present how a population is distributed by age and sex to understand patterns in a population. This can be helpful in making decisions. (The next part of the activity will more closely examine those concepts.)

Part 2 – QuickFacts

There are three options for completing this portion of the activity:

1. If computers with Internet access are available for each student or small groups of students, students could complete the activity on their own.
2. If a computer with Internet access and a projector to display Web sites are available, teachers could display QuickFacts on the screen and complete the activity with students.
3. If computers are not available, teachers could print copies of the QuickFacts data about their school's county and have students use those printouts to complete the activity.

Teachers should make sure that data for the county where the school is located are available in QuickFacts. If data are not available for that county, teachers could select a different location for analysis or have students pick.

Teachers should make sure students notice that some of the data are listed as numbers and some are listed as percentages.

During the Activity

If students are completing the QuickFacts portion of the activity on their own, teachers should instruct them to go to the top-left corner of the Web page and enter the county where the school is located. Teachers should monitor students as they work.

After the Activity

Teachers should have students share their responses to question #6, parts a and b, with a partner (if they are not already working in pairs).

Extension Ideas

- Teachers could repeat the QuickFacts exercise with a different county.
- Teachers could have students create a population pyramid on their own using different data.

Student Activity

Click ***here*** to download a printable version for students.

Activity Item

This activity uses the following online tool:

- QuickFacts
  www.census.gov/quickfacts

Student Learning Objectives:

- I will be able to use an online tool to identify and describe the demographic characteristics of the people in my community.
- I will be able to identify the types of services or businesses that are in demand based on the demographic characteristics of my community.
- I will be able to analyze and help create a visual representation of data on demographic characteristics.

Part 1

Demographic characteristics can be used to describe a population (a group of people). With your teacher, you will create a population pyramid that shows how many girls and boys of different ages are in your class.

Part 2

Now that we've learned some of the demographics of the students in this classroom, let's figure out some demographic characteristics of the people in a county in Michigan using information from an online tool called QuickFacts.

1. First, we are going to examine a county in Michigan called Midland County to compare changes over time. The data for 2010 is filled in for you. Using QuickFacts, complete the table below by filling in the demographic characteristics for Midland County in 2024.

Demographic Characteristic	Midland, Michigan, 2010	Midland, Michigan, 2024
Population	**83,629**	**84,022**
Percentage of people under 5	**5.6%**	**5.0%**
Percentage of people under 18	**23.7%**	**20.5%**
Percentage of people 65 and older	**14.8%**	**21.4%**
Percentage of people who are female	**50.9%**	**50.3%**
White alone (percent)	**95.0%**	**93.5%**
Black or African American alone (percent)	**1.2%**	**1.5%**
American Indian and Alaska Native alone (percent)	**0.4%**	**0.6%**
Asian alone (percent)	**1.9%**	**2.4%**
Native Hawaiian and Other Pacific Islander alone (percent)	**0.1%**	**0.1%**
Two or More Races (percent)	**1.5%**	**2.0%**

(Fun fact: QuickFacts does not include the percentage of people who are male, but you can figure that out by subtracting the percentage of females from 100 percent.)

2. What do you notice about the data in your table? What trends or changes over time do you notice in the demographic characteristics of Midland County between 2010 and 2024? What similarities do you see?

   Student answers will vary. Students might say that Midland County is not very diverse racially, or that the demographic characteristics haven't changed much over the last 12 years. The most notable change is that the percentage of people 65 and older has increased (by over 5 percentage points).

3. Now we are going to look at the county where your school is located. Using QuickFacts, complete the table below by filling in the demographic characteristics for your school's county in 2024.

Student answers will vary.

Demographic Characteristic	_____ , 2024
Population	
Percentage of people under 5	
Percentage of people under 18	
Percentage of people 65 and older	
Percentage of people who are female	
White alone (percent)	
Black or African American alone (percent)	
American Indian and Alaska Native alone (percent)	
Asian alone (percent)	
Native Hawaiian and Other Pacific Islander alone (percent)	
Two or More Races (percent)	

4. Using the data for 2024 about your school's county, decide whether you think the following businesses or services were in demand in 2024. Explain why.

   Student answers will vary. A sample answer is provided for Midland County, Michigan:

Service/Business	Demand (Low, Medium, or High)	Explanation
Day care	**Low**	**Less than 6 percent of the population is under the age of 5.**
Assisted living or nursing homes	**Medium**	**The percentage of people 65 and older is over 20 percent, but that grew from about 14 percent in 2010, so if that trend continues, the demand might increase.**
Nail salon	**High**	**Just about half of the county is female, and nail salons tend to see more women than men, so there is a good chance that there is a lot of demand for this type of business.**

5. How might a business owner or leader of a community organization like a library, public pool, or community center use these data on demographic characteristics to make decisions for their organization or business?

   Student answers will vary. A sample answer is provided for Midland County, Michigan. Students could say that business owners shouldn't be worried about opening a business in Midland County because the population has not decreased significantly over 14 years—it has stayed about the same. They might also say that since there are more children and teenagers in Midland County than people aged 65 and older, it might make more sense to have a teen club or youth center rather than services for senior citizens.

6. Think about different places you would like to live, if you could live anywhere … then answer the following questions!

a. Let's say your parent/guardian decides you can pick the next place you move! If you were looking at demographic characteristics to help you make your decision, what specific things would you look at and why?

Student answers will vary, but students might say that they would look at population because they prefer to live in an area with a lot of people where there are likely more things to do. They might also say they would look at how many children are in the community—the more children, the better the chance that there will be more fun things for kids, like parks and libraries. They might also look at population growth over time. If the area is growing very quickly, it probably has many new things to offer.

b. How are those things different or similar from what a business owner might look at? Why?

Student answers will vary, but students could say that a business owner might also look at population information to determine if enough people would come to his or her business.

7. How would a population pyramid be helpful for someone who wants to open a business in a community?

Student answers will vary. A sample answer appears below.

New business owners could look at the population pyramid to quickly see how many people are in certain age groups and how many men and women (and boys and girls) there are. They could then decide what kinds of businesses would be successful based on the population in that area. If they see that there are a lot of children, they may want to open kid-friendly businesses, like toy stores, children's clothing stores, or ice cream shops. If there are more adults, they may want to open bookstores, restaurants, or cafes.

Reflection and Looking Forward

Now that you've answered all of the activity questions, how do you think you could use data on demographic characteristics in your own life, in the future? As you get older, how could these data help you make decisions?

Student answers will vary. A sample answer appears below.

When I get older, I could use data on demographic characteristics to decide where to live or where I want to work. I want to be a children's doctor (pediatrician), so I should live in an area that has a lot of kids. I also want to live in a place that has lots of things to do, so I should find an area that has a big population.