Featured Activity: City Planning With Census Data

Topic(s):
Decennial census, funding, resources

Grade Level:
5-6

Approx. Time Required:
45 minutes

Learning Objectives:
Students will be able to:

- Make decisions based on data.
- Build vocabulary.
- Solve for quotients of up to a four-digit dividend by a three-digit divisor.
- Present an argument by using data to support their stance.
- Make predictions about resources needed for their assigned community based on population.
- Understand why the decennial census is important to the distribution of federal funds.

Introduction

The 2020 Census Statistics in Schools (SIS) program is designed to educate students about the decennial census and to teach them educational concepts and skills, such as data literacy, through use of census data in the classroom. Responding to the census helps your community get its fair share of funding. Census data guides how more than $675 billion in federal funding is distributed to states and communities each year. These funds support vital community programs that help children, such as schools, hospitals, housing, and food assistance. By educating students about the 2020 Census, you can help encourage a complete count.

The 2020 Census SIS program can be used with educational standards across the United States. You can use the topics and learning objectives above to determine which subject and unit plan or theme this activity will best fit into.

About the 2020 Census

In addition to the information that is built into instructions for this activity, the following points provide an easy, grade-appropriate way to explain the census to your students.

- The decennial census is a count of every person living in the United States that occurs every 10 years.
- Responses to the census determine how $675 billion is given to states and communities to support things like schools, hospitals, housing, and parks.
- It is important that every person be counted so that the government knows where resources are most needed.
- You can do your part by making sure an adult in your home counts you—and every person living in your home—in the 2020 Census.

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About the Modifications

- **This activity is a modified version of the 2020 SIS Featured Activity: City Planning With Census Data for fifth and sixth grade classrooms. It has been modified to accommodate K-12 English language learners (ELLs).**
- **Sections have been added to this teaching guide that call out modifications made specifically for ELLs.**

Materials Required

- **Printed ELL student worksheets**
- Calculators for each group of students

Worksheet Description

This worksheet focuses on how the decennial census benefits students, their families, and their communities, highlighting why participation is important. Use this worksheet in your classroom as a starting point or introduction to the 2020 Census. For fifth and sixth grade students, this worksheet focuses on concepts such as what the U.S. Census Bureau does and how the census helps the students' community.

Before the Activity—5 Minutes

For ELLs: Before the lesson, when you hand out student worksheets and activity items to all students, hand out the Word Bank and Vocabulary to English language learners as well. Introduce the key vocabulary to your students. Use your discretion in choosing which concepts are already understood and which require previewing. Direct students to the word bank and vocabulary to follow along and view images.

Key Vocabulary for ELLs:

- **Census: A process of counting all the people in a country, city, or town and collecting information about them**
- **Questionnaire: A set of written questions that is given to people to collect facts or opinions about something**
- **State capital: A city that holds the state government**
- **Population: The number of people who live in a place**
- **Community resources: Services and other things that are available to people in a community. Examples are police stations, fire departments, schools, hospitals, roads, and parks.**
- **Budget: An amount of money available for spending**

Note for ELLs: During discussions, encourage students to use the word bank in their worksheet to find words to support them in their oral answers. Provide sentence starters on the board for students, as needed, to help them answer questions.

1. Ask students the following question: Does anyone know what the decennial census is? Allow students to raise their hands and answer.

    For ELLs: Use the following sentence starters:

    - **"The decennial census is_____."**
    - **"I know the census tells us_____."**

    Answers will vary. Some students may have heard of the decennial census, some may think it is an opinion survey, and some may not have any idea.

2. After allowing students to share their ideas, share the following key points about the Census Bureau, the decennial census, and the 2020 Census.

    For ELLs: English language learners may follow along in the Word Bank and Vocabulary.

    - The Census Bureau is a government organization that collects data on a variety of topics, such as population, businesses, and size of households, through a number of different surveys.
    - The Census Bureau is responsible for conducting the decennial census, which is called for in the U.S. Constitution and has happened every 10 years since 1790.
    - The census is a count of all people living in the United States and its territories. Data from the census is used to allocate $675 billion in federal money among states and communities. This money goes to things such as schools, roads, public transportation (like buses), and health care (for instance, doctors and hospitals).
    - The next census will happen soon, in 2020. The 2020 Census will show the government where in the United States the population is growing. This helps the government learn which communities will need new schools, parks, roads, and hospitals.

During the Activity—35 Minutes

1. Begin by splitting the class into four groups. Then hand out one student worksheet to each student. Explain to the class that each group is being assigned one state capital, and they are going to act as a city planner for that city.

2. Next, tell students to complete the first blank column (Population Divided by 1,000) in Table 1 on their student worksheet, dividing the total population of each city by 1,000. Tell students that this exercise will let them base their decisions on "every 1,000 people" living in their city and also will make the numbers easier to use.

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3. Next, explain to the class that they now need to calculate how many tokens each city is going to receive based on the number of adults and children they just calculated in column 3. Tell students their city will receive 2 tokens for every 1,000 people. Guide students to divide the population by 1,000, then multiply by 2 to determine the total number of tokens their city will receive.

Give students five minutes to come up with the number of tokens allocated to each of the four cities (and record on their worksheets). If students need help calculating the number of tokens for their city, you can also walk through the calculations as a class.

For ELLs: While non-English language learners are working on calculations, talk through the table and explain the headers and the content to the English language learners. Their table is complete so they can focus on vocabulary and comprehension. Explain that "tokens" are used as pretend money to show how the federal government provides different amounts of funding based on population numbers. The more people a city has, the more resources (like hospitals, schools, or fire stations) it will need.

State Capital	Population	Population Divided by 1,000 (round to the nearest whole number)	Tokens
Montgomery, Alabama	198,218	198	396
Boston, Massachusetts	694,583	695	1,390
Juneau, Alaska	32,113	32	64
Santa Fe, New Mexico	84,612	85	170

Source: U.S. Census Bureau, 2018 Population Estimates

www.census.gov/quickfacts/fact/table/santafecitynewmexico,juneaucityandboroughalaska,bostoncitymassachusetts, montgomerycityalaba ma,US/PST045219

4. Explain to students that they will now decide how to spend their budgets—that is, the allocated tokens for their city, as shown in Table 1—based on what they think their city needs and wants. Refer students to **Activity Item: Community Services List**, which shows a list of community services and businesses and their associated "prices" (in tokens, to make it clear that these are not real amounts used by the government). Give students 20 minutes to work in their groups to decide what community services and businesses they would like to have in their city and to complete the second table on their worksheet. (Note: Tell students to complete the second table with their group and wait to answer Questions #3 and #4 until after the class discussion.)

For ELLs: To help the students visualize the city, direct their attention to their student worksheet, where there are pictures of each community service with the number of tokens written next to them. This will aid students in seeing how many community services they can afford with their tokens.

> **Note:** Students in the group for Boston may get stuck on how to spend their tokens because they have so many. Remind students to account for the larger population by increasing the amount of each service purchased.

5. Ask one student from each group to share which choices were easy, which were hard, and how they resolved their disagreements when deciding what to purchase for their city. Ask students why they chose certain businesses over others or if they have enough services to support their city (hospitals, fire stations, schools, etc.).

For ELLs: Use the following sentence starters:

- **"We chose to_____."**
- **"We disagreed about_____."**
- **"We chose_____instead of_____because_____."**

6. Next, give students five minutes to answer Questions #3 and #4.

> Question #3: How did the population of your assigned city compare to the populations of the other cities? How did that affect the number of resources you received for the people living in that city?
>
> *Answers will vary based on students' assigned city but should note that cities with smaller populations had fewer resources and cities with larger populations had more resources.*

Question #4: After what you learned today, why is it so important for everyone in your community to be counted?

Answers will vary but should include that it is important for every person to be counted to make sure each community gets the resources it needs to support its population.

After the Activity—5 Minutes

1. Ask students how having more people but the same number of resources would affect life in their community. Lead students to conclusions such as "not having enough housing" or "having too few doctors to care for people at the hospital." Make sure students understand that if they didn't count everyone, they wouldn't get the appropriate resources for their community.

   Tell students that this situation is just like the 2020 Census: "It is important that all people be counted so that every community can get the resources it needs based on the number of people living there."

   ### For ELLs: Use the following sentence starters:

   - **"If the city had more people but the same number of resources, then_____."**
   - **"Having more people without more resources is a problem because_____."**

2. Remind students that they can help shape the future of their community by telling their parents or other adults in their home to take the 2020 Census and to include everyone at home in the household count on the form.

Home Extension

Teachers, please read the instructions for the students' homework assignment out loud to the class:

Take your student worksheet home and share it with an adult living in your home. Explain in your own words how the 2020 Census collects information about people in your home and uses this information to allocate resources for your community. Don't forget to share how you allocated resources in your assigned city, too!

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Activity Item: Community Services List

Tokens available based on census: *2 tokens per 1,000 people*

Cost of community services:

- Police Station = 10 tokens

- Fire Station = 10 tokens

- Hospital = 10 tokens

- School = 10 tokens

- City Hall = 5 tokens

- Library = 5 tokens

- Dentist Office = 5 tokens

- Zoo = 8 tokens

- Grocery Store = 8 tokens

- Gas Station = 4 tokens

- Pet Store = 3 tokens

- Amusement Park = 8 tokens

- Toy Store = 3 tokens

- Candy Store = 3 tokens

- Ice Cream Store = 3 tokens

- Fast Food Restaurant = 3 tokens

- Park/Sports Court/Field (soccer, basketball, etc.) = 8 tokens

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