Planning Bellport

Use population data to weigh future service needs.

WG.C.2.1 "Interpret geographic data measuring population including density, distribution, patterns of composition, and population trends and projections to analyze issues related to population change."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline a sentence about where residents are concentrated, circle a sentence about the projected age mix, and number the two statements about possible future service needs. Use your marks to separate population patterns from planning predictions.

Where Should Services Go?

1 Imagine the fictional city of Bellport planning bus routes and clinics. Its three districts differ in land area, so population totals alone do not show where people live most closely together. Density means residents per square kilometer: divide the population by the area. The table pairs 2020 estimates with 2030 projections, which are forecasts, not guaranteed counts.

BELLPORT DISTRICT ESTIMATES AND PROJECTIONS

District	Area (km²)	2020 population estimate	2030 population projection	Projected 2030 share age 65+
Harbor	10	20,000	30,000	20%
Hills	50	20,000	25,000	24%
River	20	10,000	12,000	15%

2 In 2020, residents were not evenly distributed across the districts. A district with more land can have the same number of residents as a smaller district yet feel much less crowded. For planners, this distribution matters: a short bus route may reach many riders in a compact district, while a larger district may need stops farther apart.

3 The projected share of residents age 65 or older differs across districts. A higher share does not always mean a higher number of older residents, because district populations vary. If Harbor reaches its projected 2030 population, buses there may need more frequent service. If Hills reaches its projected age mix, planners may need more accessible stops.

2 ANSWER WITH EVIDENCE

Use the passage

1. Calculate the 2020 population density of Harbor and Hills. What do the results show about how residents were distributed?

2. Compare Harbor's and Hills's projected population growth from 2020 to 2030 as percentages. Which is projected to grow faster?

3. Which district has the highest projected share of residents age 65 or older? What service need mentioned in the passage might this suggest?

4. Harbor's projected older-adult share is lower than Hills's. Use the table to explain why the two districts could still have the same number of older residents in 2030.

3 YOUR TURN

Your own words

Write a short planning memo recommending one district for more frequent bus service and a different district for a mobile clinic. Support your choices with at least three numbers from the table, including one density you calculate, and explain one limit of using projections.

Planning Bellport

PART 1 · READ AND MARK

Underline a sentence about where residents are concentrated, circle a sentence about the projected age mix, and number the two statements about possible future service needs. Use your marks to separate population patterns from planning predictions. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Calculate the 2020 population density of Harbor and Hills. What do the results show about how residents were distributed?	**Harbor had 2,000 residents per km²; Hills had 400 per km². Harbor's residents were more concentrated.**
2	Compare Harbor's and Hills's projected population growth from 2020 to 2030 as percentages. Which is projected to grow faster?	**Harbor is projected to grow 50%, from 20,000 to 30,000. Hills is projected to grow 25%, from 20,000 to 25,000. Harbor grows faster.**
3	Which district has the highest projected share of residents age 65 or older? What service need mentioned in the passage might this suggest?	**Hills has the highest projected share, 24%. It may need more accessible bus stops.**
4	Harbor's projected older-adult share is lower than Hills's. Use the table to explain why the two districts could still have the same number of older residents in 2030.	**Harbor's projected 30,000 residents at 20% yields 6,000 older residents. Hills's projected 25,000 at 24% also yields 6,000.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

I recommend more frequent buses in Harbor. Its 2020 density was 2,000 residents per km², and its population is projected to rise from 20,000 to 30,000. I recommend a mobile clinic for Hills because its residents are spread across 50 km², and 24% of its projected 2030 population is age 65 or older. A mobile clinic could reach people who live far from one fixed location. These plans should be reviewed as new counts become available because projections are not guaranteed.

Accept other district choices in the memo when the numbers and reasoning support both recommendations. Density must be calculated as population divided by area, and the response should treat 2030 values as projections.