When Numbers Grow

How population growth affects a nation's resources

6-9.WH.2.8 "Illustrate how the population growth rate impacts a nation's resources."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline one growth-related change in demand for water, food, and school seats. Circle the resource or service affected by each change, and give each matching pair the same number.

A Growing Nation's Choices

1. In the fictional island nation of Tavi, families get drinking water from wells fed by rain. When the population grows quickly, more households draw water each day. Rain may refill the wells at the same pace as before, so water use can rise faster than the supply. During a dry month, some wells may run low earlier. Families might spend more time collecting water, while farms may have less water for crops. A fast growth rate does not create a shortage by itself, but it can increase pressure on a limited supply.

2. Tavi also has a small area of fertile land. If its population grows faster than farmers can raise food production, the nation may need to buy more food from elsewhere. Buying food costs money that could have paid for roads or clinics. Farmers might clear hillsides for new fields, but removing trees can leave soil exposed to heavy rain. Soil washed away by rain is harder to farm. Growth that slows gives farmers and leaders more time to improve harvests without using up land as quickly.

3. Population growth also changes the demand for services. Suppose Tavi builds one school each year, but the number of children needing seats rises faster than the number of new seats. Classrooms could become crowded even though the nation keeps building. Leaders could train more teachers, expand schools, and improve water pipes, but those plans take time and money. If growth slows while investment continues, new supplies and services may catch up with demand. The effect of growth depends on how quickly resources and services can expand.

2 ANSWER WITH EVIDENCE

Use the passage

1. How could rapid population growth cause Tavi's wells to run low earlier, even if rainfall stays the same?

2. If Tavi's population grows faster than its food production, how could that affect money available for roads or clinics?

3. Why might Tavi's classrooms become crowded even while the nation builds a school each year?

4. How could slower population growth help Tavi protect its farmland?

3 YOUR TURN

Your own words

Imagine a coastal nation that depends on fish for food. In three or four sentences, compare what might happen to its fish supply under fast and slow population growth, then propose one way leaders could protect that supply.

ANSWER KEY

When Numbers Grow

GRADES 6-9 · 6-9.WH.2.8

PART 1 · READ AND MARK

Underline one growth-related change in demand for water, food, and school seats. Circle the resource or service affected by each change, and give each matching pair the same number. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How could rapid population growth cause Tavi's wells to run low earlier, even if rainfall stays the same?	**More households would draw water, so use could rise faster than rain refills the wells.**
2	If Tavi's population grows faster than its food production, how could that affect money available for roads or clinics?	**Tavi may need to buy more food from elsewhere, leaving less money for roads or clinics.**
3	Why might Tavi's classrooms become crowded even while the nation builds a school each year?	**The number of children needing seats could rise faster than the number of new seats.**
4	How could slower population growth help Tavi protect its farmland?	**It could give farmers and leaders more time to improve harvests without using up land as quickly.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

If the population grows quickly, more people may catch fish, and catches could exceed the rate at which fish reproduce. If growth is slower, fishing demand may rise more gradually, giving fish populations more time to recover. Leaders could limit the number of fish caught each season so people can keep using this food source.

Accept other accurate cause-and-effect explanations supported by the passage. For the open task, look for a comparison of growth rates, an effect on fish supply, and a practical way to protect it.