Farming Leaves Marks

How food production shapes land and local economies

7.C.4.2 "Describe how humans adapt to and modify their environment for the purpose of food production. Describe the differences among subsistence, cash crop, and commercial agriculture..."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline farming methods, circle their effects on food or income, and number the changes they make to land or water. Use your marks to trace each choice's impact.

What a Harvest Changes

1. Imagine two farms beside the same road. One family grows beans and millet mainly to feed itself. This is subsistence agriculture, so the harvest may leave little to sell. Another family grows coffee to sell for income. Coffee is a cash crop, even if the farm is small. A large commercial farm might sell grain or livestock using hired workers and machines. Sales can bring jobs and tax money to a region, but reliance on one cash crop can leave families vulnerable when prices fall.

2. In Central Asia, farmers diverted rivers that fed the Aral Sea to irrigate cotton fields. Cotton sales brought income, but less water reached the sea. Much of the sea shrank, exposing salty lakebed soil. Wind carries dust and salt onto nearby land, harming fields and health. This is a physical imprint of farming, not a natural drought alone. Modern drip irrigation sends water near plant roots through tubes. It can reduce water loss compared with flooding fields, though building and maintaining the system costs money.

3. In parts of the Arabian Peninsula, farms pump groundwater or use treated seawater to grow food in dry conditions. Pumping too much groundwater can drain supplies, while removing salt from seawater uses energy. Elsewhere, farmers cut flat terraces into steep hillsides for rice. Terrace walls hold water and soil but visibly reshape slopes. During the Green Revolution, new high-yield wheat and rice varieties, along with fertilizer and irrigation, raised harvests in many developing countries. Higher yields can improve food supplies and market income, but farmers need access to water and supplies.

2 ANSWER WITH EVIDENCE

Use the passage

1. How do subsistence, cash crop, and commercial agriculture differ in what farmers produce or how they sell it?

2. How did cotton farming bring both an economic benefit and an environmental cost near the Aral Sea?

3. What benefit and cost might a farm face if it used drip irrigation instead of flooding fields?

4. How do terraces and Green Revolution crop varieties help produce food in different ways? Which one visibly changes the land?

3 YOUR TURN

Your own words

A community has steep hillsides, a short rainy season, and a limited budget. Propose a food-production plan in four sentences: name a type of agriculture and a farming method, explain how the plan could increase food or income, and predict one visible change to the land or one resource cost.

ANSWER KEY

Farming Leaves Marks

GRADE 7 · 7.C.4.2

PART 1 · READ AND MARK

Underline farming methods, circle their effects on food or income, and number the changes they make to land or water. Use your marks to trace each choice's impact. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How do subsistence, cash crop, and commercial agriculture differ in what farmers produce or how they sell it?	**Subsistence farmers grow food mainly to eat. Cash crop farmers grow a crop to sell, even on a small farm. The passage's commercial farm is large and sells grain or livestock using hired workers and machines.**
2	How did cotton farming bring both an economic benefit and an environmental cost near the Aral Sea?	**Cotton sales brought income, but river diversions reduced water reaching the Aral Sea. The sea shrank, exposing a salty lakebed whose dust and salt harm nearby land.**
3	What benefit and cost might a farm face if it used drip irrigation instead of flooding fields?	**Drip irrigation can reduce water loss, but the system costs money to build and maintain.**
4	How do terraces and Green Revolution crop varieties help produce food in different ways? Which one visibly changes the land?	**Terraces hold water and soil on slopes, while high-yield crop varieties raise harvests when farmers have needed supplies. Terraces visibly reshape hillsides.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Families could grow millet mainly for local meals, a form of subsistence agriculture. They could build small terraces to slow rainwater runoff and keep soil on the steep slopes. More millet could feed the community after the rainy season, although building terraces would require labor. The steps cut into the hillsides would remain a visible change to the land.

Accept other feasible four-sentence plans that name an agriculture type and a method, explain a food or income benefit, and identify a plausible land change or resource cost. For question 1, accept that cash crop describes what is sold, while commercial describes farming for the market and may involve a larger operation.