Name:

My Kansas Farm <mark>Answer Key</mark>



1. What problems could a drought cause on your farm?

The most thorough answers will mention that the lack of water would cause a series of events.

The lack of water would cause the crops to die, because wheat and corn crops don't have long enough roots to reach water deep underground. If the crops die, the soil would no longer be held in place. This would lead to an increase in erosion and possibly lead to dust storms. Dust in the air would decrease the air quality and likely have a negative impact on the well-being of both plants and animals.



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My Kansas Farm <mark>Answer Key</mark>

Farm Resources: Here's what your farm has on it.

• Water source: Rainfall

100 acres of planted corn

- 100 acres of pasture land with native grasses
- A small tractor that's 10 years old
- A milk cow and her calf
- 2. What resources does your farm have that will protect it from a drought?

The main resource the farm has that protects it from a drought is the native grasses growing on the pasture land. Another less obvious resource is the land itself that the corn is currently planted on. The corn could be removed and replaced with a more drought-tolerant plant.

3. What changes would you make to your farm to protect it from a drought?

This question doesn't necessarily need to be assessed, because it is intended to help students brainstorm before moving on to the main activity of the performance task.

Encourage students to apply what they've learned throughout the unit about the causes of the Dust Bowl. Some possible answers would include:

- Something to provide an alternate source of water, such as drilling a well
- Something to prevent crops from dying, such as only planting drought-tolerant crops
- Something to block wind, such as planting trees
- Something to hold the soil in place, such as planting native grasses

Mystery Science Water Cycle & Earth's Systems | Performance Task