



Where's the Fence? Using Scientific Technology to Protect Desert Ranches 5th Grade Classroom Program

Program Summary

Students learn about “virtual fences,” a new technology that can help ranchers in the southwestern United States prevent overgrazing and protect natural resources. They use a model to compare traditional and virtual fences. Then students take on the role of a sales person at a trade show selling the fence of their choice and must come up with a persuasive argument for their chosen fence.

Phenomenon

Virtual fences may be a technological solution that could help ranchers better manage their cows while preventing overgrazing and protecting the land.

Time

60 minutes

Next Generation Science Standards

5-ESS3-1: Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

Science & Engineering Practices	Disciplinary Core Ideas	Cross-Cutting Concepts
Obtaining, Evaluating, and Communicating Information	ESS3.C Human Impacts on Earth's systems	Systems and System Models
Developing and Using Models	ESS2.E Living things affect the physical characteristics of their regions	
Engaging in an Argument from Evidence		

Common Core State Standards

ELA/Literacy

W.5.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

W.5.2.D Use precise language and domain-specific vocabulary to inform about or explain the topic.

W.5.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

Math

5.NBT.B.5 Fluently multiply multi-digit whole numbers using the standard algorithm.



**Sustainable
Southwest Beef**
knowledge and tools for ranch and
rangeland resilience