ACTIVITY: REGENERATIVE FARM CHALLENGE

Regenerative Farm Challenge

Investigate, take a role, and help your team solve real farm challenges.

NAME _____ DATE _____

Part 1: Video Summary

View one of the mini-documentaries at kisstheground.com.

a. What was the name of the farm and farmer profiled in the video?

Farm or ranch _____

Farmer or rancher _____

b. What was one challenge the farmer described? One benefit?

Challenge _____

Benefit _____

c. What was something new or interesting you learned about regenerative farming or ranching?

_____

_____

_____

d. What questions do you still have about regenerative farming or ranching?

_____

_____

_____

Part 2: Role Description

Using your Role Description Card as a guide, visit your assigned Research Stations, read the information, and use what you learn to complete this page.

MY ROLE _____

a. My main job

What does your role do on the farm?

b. Why my role matters

How does your role help people, animals, water, soil, or the land?

c. Important words to know

Write 2–3 vocabulary words that relate to your role. Add a short definition for each.

d. What more would you like to learn?

Write one question you still have about your role.

Stations I visited

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9

Check the stations you visited. Aim for 3–5.

REGENERATIVE FARM CHALLENGE: YOUR ROLE

Regenerative Farmer

nourish

I grow food in ways that protect and rebuild the land. Instead of using chemicals that can harm soil and water, I use natural methods like compost, cover crops, crop rotation, and planting different crops together. My goal is to keep the farm healthy for many years by working with nature and strengthening the soil.

STATIONS TO VISIT

- Station 1: What Is Regenerative Farming?
- Station 5: Cover Crops and Crop Rotation
- Station 6: Circular Farming Systems

WHAT TO LOOK FOR

- How farmers protect and rebuild soil
- How planting different crops helps the land
- How compost and animals fit into farm cycles

Nourish Curriculum © WorldLink (Lesson 6: Regenerative Farm Challenge)

✂ CUT ON THE DASHED LINE

REGENERATIVE FARM CHALLENGE: YOUR ROLE

Soil Scientist

nourish

I study soil to discover how alive and healthy it is. I look closely at its color, texture, smell, and how well it holds water. I pay attention to worms, fungi, and tiny organisms that help soil function. I share what I learn with farmers, who make choices that keep their soil strong.

STATIONS TO VISIT

- Station 2: Soil Scientists
- Station 3: Composting
- Station 9: Water Stewards

WHAT TO LOOK FOR

- How to tell if soil is healthy
- How living things support soil
- How soil and water affect each other

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nourishlife.org

REGENERATIVE FARM CHALLENGE: YOUR ROLE

Compost Maker

nourish

I turn food scraps, leaves, and plant pieces into compost that helps soil become richer and healthier. I mix materials, check moisture, and make sure worms and microbes can do their work. Compost gives nutrients back to the soil and helps plants grow strong.

STATIONS TO VISIT

- Station 3: Composting
- Station 6: Circular Farming Systems

WHAT TO LOOK FOR

- How compost is made
- How compost improves soil
- How compost fits into the farm's natural cycle

✂ CUT ON THE DASHED LINE



REGENERATIVE FARM CHALLENGE: YOUR ROLE

Farm Animal Caretaker

nourish

I take care of animals on the farm and graze them in ways that support the land. By moving animals from place to place (called “rotational grazing”), I protect plants from being eaten too often and help manure spread evenly to add nutrients back into the soil.

STATIONS TO VISIT

- Station 6: Circular Farming Systems
- Station 5: Cover Crops and Crop Rotation

WHAT TO LOOK FOR

- How animals fit into circular cycles
- How plants and animals support each other
- How manure and grazing help soil

REGENERATIVE FARM CHALLENGE: YOUR ROLE

Water Steward

nourish

I make sure the farm uses water wisely and keeps streams, ponds, and soil healthy. I help prevent water from washing soil away and find ways for the farm to store more water during dry times. My job is to protect and retain water so the whole ecosystem stays balanced.

STATIONS TO VISIT

- Station 9: Water Stewards
- Station 1: What Is Regenerative Farming?

WHAT TO LOOK FOR

- How soil holds water
- How plants and roots protect water sources
- How farms prevent erosion and runoff

✂ CUT ON THE DASHED LINE

REGENERATIVE FARM CHALLENGE: YOUR ROLE

Climate Scientist

nourish

I study weather patterns and how climate affects the farm. I look at how soil stores carbon, how deep roots protect soil during storms, and what farms can do to stay strong when weather becomes more extreme. My work helps the farm prepare for future changes.

STATIONS TO VISIT

- Station 7: Climate and Farming
- Station 1: What Is Regenerative Farming?

WHAT TO LOOK FOR

- How healthy soil helps during storms, heat, and drought
- How plants store carbon
- What makes a farm resilient

REGENERATIVE FARM CHALLENGE: YOUR ROLE

Pollinator Keeper

nourish

I protect bees, butterflies, hummingbirds, and other pollinators that help grow fruits and vegetables. I create habitats with native flowers and safe places for pollinators to live. When pollinators are healthy, the whole farm becomes stronger.

STATIONS TO VISIT

- Station 4: Pollinators and Biodiversity
- Station 8: Pie Ranch

WHAT TO LOOK FOR

- Why pollinators are important for crops
- What habitats pollinators need
- How farms support pollinators

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✂ CUT ON THE DASHED LINE

REGENERATIVE FARM CHALLENGE: YOUR ROLE

Seed Saver

nourish

I collect, store, and share seeds from many different plants. I help protect plant diversity so farms can grow crops that resist pests, adapt to changes in weather, and stay healthy. Saving seeds helps keep farms resilient and full of variety.

STATIONS TO VISIT

- Station 4: Pollinators and Biodiversity
- Station 5: Cover Crops and Crop Rotation

WHAT TO LOOK FOR

- Why plant diversity matters
- How growing different crops helps soil and ecosystems
- How rotation supports healthy plant cycles

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REGENERATIVE FARM CHALLENGE: YOUR ROLE

Farm-to-School Chef

nourish

I create healthy meals using fresh food from nearby farms. I think about how to reduce waste, use seasonal ingredients, and support farmers by choosing local fruit and vegetables. My work provides schools and students with healthy, nourishing food.

STATIONS TO VISIT

- Station 8: Pie Ranch
- Station 6: Circular Farming Systems

WHAT TO LOOK FOR

- How farms work with schools and communities
- How waste can be reduced or reused
- How fresh, local food supports health

✂ CUT ON THE DASHED LINE

REGENERATIVE FARM CHALLENGE: YOUR ROLE

Market Organizer

nourish

I help set up farmers' markets and make sure people can buy healthy, local food. I support farmers by helping them sell what they grow, and I help communities discover new foods to eat. Healthy markets make the whole food system stronger.

STATIONS TO VISIT

- Station 8: Pie Ranch
- Station 4: Pollinators and Biodiversity

WHAT TO LOOK FOR

- How farms connect with their communities
- How growing diverse crops supports a market
- How local food strengthens the food system

REGENERATIVE FARM CHALLENGE: YOUR ROLE

Farmworker

nourish

I help plant, care for, and harvest crops so food can grow and get to people's tables. I use my knowledge and skills to support the farm, from preparing the soil to picking fruits and vegetables. My goal is to help the farm thrive while making sure the work is done safely, fairly, and with care for the land.

STATIONS TO VISIT

- Station 1: What Is Regenerative Farming?
- Station 5: Cover Crops and Crop Rotation
- Station 6: Circular Farming Systems

WHAT TO LOOK FOR

- What important jobs farmworkers do, and the experience needed
- How farmworkers help care for crops, soil, and animals
- Why fair working conditions and safety matter on a farm

✂ CUT ON THE DASHED LINE

REGENERATIVE FARM CHALLENGE: YOUR ROLE

Student Reporter

nourish

I observe what happens on the farm and share its story. I explain how different roles work together, how the farm cares for the land, and why regenerative farming matters. My job is to help others understand what the team is building.

STATIONS TO VISIT

- Station 8: Pie Ranch
- Station 1: What Is Regenerative Farming?

WHAT TO LOOK FOR

- How real farms use regenerative practices
- How farming connects to community
- How different parts of the farm system work together

REGENERATIVE FARM CHALLENGE: STATION 1



1 What Is Regenerative Farming?

Bold words are vocabulary words from this lesson.

Regenerative farming is a way of growing food that helps the land become healthier every year. Farmers work with nature instead of against it. They protect the soil, use water wisely, and grow many different kinds of plants.

Healthy soil is full of living things: worms, beetles, fungi, and tiny microbes. Microbes are organisms so small you need a microscope to see them. These organisms break down old plant material and turn it into food for new plants. Regenerative farmers and farmworkers support this process by adding compost, planting **cover crops** so soil is less bare, and rotating crops to improve **soil health**.

Healthy soil can also store more carbon. Carbon is a key element in plants, animals, and the atmosphere. When carbon is held in the soil, it stays out of the air, where extra carbon traps heat and warms the planet. Healthy soil also holds more water, which protects the farm during storms, heat waves, or droughts.

Roles that connect to this station: Regenerative Farmer, Farmworker, Soil Scientist, Compost Maker, Water Steward, Climate Scientist. These roles help protect soil, water, and the whole farm system.



2 Soil Scientists

Bold words are vocabulary words from this lesson.

Soil scientists study soil to understand how alive and healthy it is. They use microscopes, soil-test kits, and field notebooks to examine the soil's color, texture, and how well it holds water. Dark, crumbly soil is usually full of nutrients: the substances plants need to grow. Pale or hard soil often needs compost or **cover crops** to improve it.

Soil scientists also study the tiny organisms living underground. A single handful of healthy soil can contain billions of bacteria and fungi, plus worms and insects. These living creatures break down old plant material, make tunnels that let air and water in, and help plant roots grow strong.

When scientists share their findings with farmers, they help the farm make good choices, such as where to add compost, what crops to plant next, or how to protect the soil from erosion. Erosion happens when wind or water carries soil away, leaving the land less able to grow food.

Roles that connect to this station: Soil Scientist, Regenerative Farmer, Compost Maker, Farm Animal Caretaker. These roles help rebuild soil and support healthy crops.

REGENERATIVE FARM CHALLENGE: STATION 3



3 Composting

Bold words are vocabulary words from this lesson.

Compost is made from food scraps, dry leaves, and plant pieces that break down over time. Worms, fungi, and microbes turn these leftovers into dark, rich humus, the crumbly material that gives healthy soil its dark color.

Composting is like a recycling system: old materials become new soil food. Around the world, about one-fifth of the food that reaches stores, restaurants, and homes goes to waste, and most of it is wasted at home. Composting turns food scraps back into healthy soil instead of sending them to landfills.

When farmers add compost to fields, it helps the soil hold on to water during hot or dry weather. It adds nutrients that plants need to grow strong. And it makes soil soft and crumbly so roots can spread out easily. Compost is an important part of **regenerative farming** because it brings life back into the soil without chemicals, keeping nutrients on the farm in a healthy cycle that repeats again and again.

Roles that connect to this station: Compost Maker, Regenerative Farmer, Soil Scientist, Farm Animal Caretaker. These roles use compost to rebuild soil and support plant growth.



4 Pollinators and Biodiversity

Bold words are vocabulary words from this lesson.

Pollinators (like bees, butterflies, beetles, and hummingbirds) help plants make fruits and seeds. When a pollinator visits a flower, it carries pollen from one plant to another. About one in three bites of food we eat depends on pollinators. Without them, many crops would not grow as well.

Regenerative farms protect pollinators by planting flowers, hedges, and native plants: plants that naturally grow in the area and feed local insects and birds. These plants provide food and shelter throughout the year. Farmers also avoid using chemicals that can harm insects, creating safe habitats (the natural homes of plants and animals) so pollinators can thrive.

Biodiversity means having many different kinds of plants and animals living in a place. When a farm has more biodiversity, it becomes stronger and more balanced. Pests spread less easily, plants grow better, and the whole ecosystem (the community of living things and the environment they share) becomes healthier.

Roles that connect to this station: Pollinator Keeper, Seed Saver, Regenerative Farmer. These roles help protect pollinators and keep the farm full of life.

REGENERATIVE FARM CHALLENGE: STATION 5



5 Cover Crops and Crop Rotation

Bold words are vocabulary words from this lesson.

Cover crops are plants grown not to eat, but to protect the soil. Farmers plant them when the main crops are not growing. Cover crops keep the soil from blowing away, add nutrients, and feed the organisms living underground.

Crop rotation means planting different crops in the same field from year to year. When the crop changes, pests are less likely to return, and the soil has time to rest and recover. Some plants (like clover, beans, and peas, called legumes) even add nitrogen to the soil naturally. Nitrogen is a key nutrient that plants need to grow, so legumes reduce the need for added fertilizers.

Regenerative farmers use cover crops and rotation to keep the soil healthy, hold more water, and grow stronger plants. These practices help the farm stay resilient: able to recover from challenges like storms, droughts, or pest problems.

Roles that connect to this station: Regenerative Farmer, Farmworker, Soil Scientist, Seed Saver, Farm Animal Caretaker. These roles support soil health and plant diversity.

REGENERATIVE FARM CHALLENGE: STATION 6



Photo courtesy of Happy Hens: Real Organic Certified

6 Circular Farming Systems

Bold words are vocabulary words from this lesson.

On regenerative farms, nothing is wasted. Plants grow and produce food. Leftover stems and scraps become compost. Animals graze and leave manure, which returns nutrients to the soil. The soil then grows new plants, and the cycle begins again. This is called a circular system, because the same materials keep cycling around the farm instead of being thrown away.

For example, on a circular farm, the chickens eat leftover greens from the garden. Their manure becomes compost. The compost feeds next season's crops. Crop residues (the stalks, leaves, and roots left after harvest) protect the soil and break down to feed the next generation of plants. Each part of the farm supports another part.

Circular systems help reduce pollution and support a balanced ecosystem. When farms keep nutrients cycling within the farm, they use fewer outside resources and create healthier soil, cleaner water, and stronger plants.

Roles that connect to this station: Farm Animal Caretaker, Compost Maker, Regenerative Farmer, Farmworker. These roles help keep nutrients cycling through the farm.

REGENERATIVE FARM CHALLENGE: STATION 7



7 Climate and Farming

Bold words are vocabulary words from this lesson.

Climate change causes more extreme weather (heat waves, heavy storms, droughts, and wildfires) that vary by region. Regenerative farms use practices that make the land stronger and better able to recover from these challenges.

Healthy soil stores carbon, keeping it out of the atmosphere, where it would warm the planet. This is called **carbon storage**. In fact, globally, soils hold more carbon than all the plants and the atmosphere combined. Healthy soil also holds more water, helping plants survive during dry times. Deep roots from diverse crops help prevent erosion during storms. **Cover crops** protect the soil from wind and rain.

Farmers also watch for long-term weather patterns and choose practices that reduce harm and increase resilience: the ability of a farm to recover from change. This helps the farm grow food even when the climate is unpredictable.

Roles that connect to this station: Climate Scientist, Water Steward, Regenerative Farmer, Soil Scientist. These roles help farms prepare for and adapt to changing weather and climate.



Photo courtesy of Pie Ranch

8 Pie Ranch

Bold words are vocabulary words from this lesson.

Pie Ranch is a working farm on the Northern California coast that has been growing food and teaching the next generation of farmers and food leaders for over 20 years. The farm got its name from its pie-slice-shaped piece of land.

Farmers at Pie Ranch use many regenerative practices. They plant **cover crops** to protect and feed the soil, use compost to add natural nutrients, and grow a diverse mix of crops instead of just one. To support **pollinators** like bees and butterflies, they plant flowers and native plants. They also raise animals (chickens, cows, pigs) whose manure becomes part of the farm's compost cycle.

Pie Ranch also partners with local schools and food justice organizations: groups that work to make healthy, affordable food available to all communities. Through these partnerships, students from nearby Bay Area schools visit the farm to plant, harvest, cook, and learn how healthy soil contributes to healthy communities.

Roles that connect to this station: Regenerative Farmer, Pollinator Keeper, Market Organizer, Student Reporter. These roles help connect farming, local ecosystems, and community.

REGENERATIVE FARM CHALLENGE: STATION 9



9 Water Stewards

Bold words are vocabulary words from this lesson.

Regenerative farms work hard to keep water clean and make sure the soil can absorb as much as possible. Plants with deep roots help slow down rainwater and guide it into the soil instead of letting it wash away.

Mulch (a layer of leaves, straw, or wood chips spread on top of the soil) keeps the soil moist and prevents erosion. Farmers also plant trees, shrubs, or grasses near streams to filter runoff, the water that flows off fields and into streams. Some farms build gentle trenches called swales that catch rainwater and help it soak in slowly.

When soil is healthy and full of organic matter (the decaying remains of plants and animals that feed soil life), it acts like a sponge. Healthy soil can hold up to 20 times its weight in water. It holds water during dry times and releases it slowly to help plants grow. Clean water, pollination, and healthy soil are all **ecosystem services**: benefits that healthy ecosystems give to people.

Roles that connect to this station: Water Steward, Climate Scientist, Regenerative Farmer, Soil Scientist. These roles protect and retain water for a healthy farm.