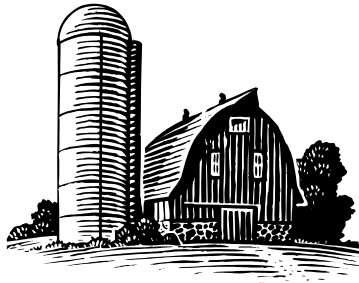


Grade I

**Self-Guided Tour
Harmony Farm**



Aligns with the following Arizona State Science Standards

S1C1-01, S1C2-03, S1C2-04, S1C3-01,
S3C2-01, S3C2-02, S3C4-01,
S4C1-01, S4C1-02, S4C1-03, S4C2-02, S4C3-01, S4C3-02, S4C3-03

This self-guided tour through Harmony Farm is offered by the Phoenix Zoo as an aid for **first grade** teachers planning a visit to the zoo. The tour outlines discussion points for each location at Harmony Farm. These discussions can be the starting point for further activity in the classroom or a means to reinforce or review concepts already discussed. The tour is arranged so that concepts at each location build upon the previous stops.

Notebooks: We suggest that students (either individually or in groups) carry either paper or notebooks and a writing implement to take notes and create a journal. These journal notes can be used for extension activities and discussions in the classroom. For each section on the tour there are suggestions for notes to take in the notebooks.

I. Red Barn

- Allow students to pet and groom the goats. Discuss how they look, feel, act and smell.
- Discuss with students what makes a goat a living being (breathing, moving on its own, eating, reacting to the students). Compare the goats to the trucks, benches, rocks or dirt in the contact yard. Do they do the same things as the goats?
- Look for the goats' food and water. Notice that they have a stall to go into for protection from the weather, to sleep in at night, and to hide in if they don't want to be with people. These are things that all animals need.
- In the hallway of the red barn look at the graphic that asks, "Which of these products comes from a cow?" Discuss with students that cows are a resource for humans. Allow the students to practice milking the plastic cow.
- Before you leave point out the posters hung by the back of the barn. These posters show pictures of farm animals and their babies. Do the babies look like their parents? What changes do you see that take place between being young and old?
- On the outside of the red barn you'll see live cows. Ask the students to point out what basic things a cow needs (you'll see hay, a water bucket, and an indoor area). There will also be a goat in with the cows. Ask the students to compare the cow to the goat. What features do both of them have? Do they have any differences?
- *Notebook:* record differences and similarities between the animals; their features and needs. Record the changes that happen when young animals become adults.

2. Sheep Barn

- At the outside of the sheep barn you'll find the sheep in their yard. How are the sheep different from the goats? What needs do the sheep have?
- Go inside the sheep barn and see the stalls that they live in. These stalls are also used when the keepers shave the wool from the sheep. Along the wall there is an interactive station that shows different types of fabric and what they are made from. Discuss with students that we use sheep as a resource for wool. Discuss the other types of fabric and the resources we use for those. (You'll find fabric made from wool, cotton plants, the agave plant, silk from a silkworm, and synthetic material). Discuss that we can also find ways to make products without using animals.
- *Notebook:* Record the differences between goats and sheep. Record the natural resources that humans use for fabrics.

3. Chicken Coop

- There are two sides to the chicken coop. One side has a few hens, a rooster, and some turkeys (male and female) that remain inside. The other side has chickens, roosters, and a peacock that can access the farm outside the coop. On this side you can see nest boxes where chickens lay their eggs.
- Discuss with students how we use chickens and turkeys for resources (eggs, meat). Discuss the needs of these animals.
- Compare the chickens and the turkeys. What features do they all have that are the same? Are there any differences? How are they different or the same from the other animals they've seen so far?
- *Notebook:* record comparisons of turkeys and chickens. Record thoughts on how chickens and turkeys may serve as resources.

4. Horse Barn

- At the horse barn you'll find several equine. Discuss their basic needs.
- Compare the animals. How do they compare to the cows, goats, and sheep?
- Visit the activity area in the Horse Barn where students can measure themselves in hands and learn about the different types of horses.
- Discuss how we use horses as a resource (locomotion, hauling).
- *Notebook:* Record comparisons made between the animals. Record measurements made in horse hands.

5. Garden

- Typically there are some flowers and vegetables growing in the garden. You can usually see plants in different stages of growth. There is a barrier up to attempt to protect the plants from local rabbits.
- Discuss what characteristics plants have that makes them alive. Explain that they have many of the same characteristics of life as the goat; however, it is difficult for us to see all of them. Plants make their own food with help from water, the sun and the minerals found in the soil. Plants grow and react to sunlight by turning themselves toward it. Their form of movement is the opening and closing of their leaves and buds.
- Discuss the basic needs of plants; minerals (typically found in the soil), sunlight, and water. Explain that soil is an important resource to humans because it usually has the minerals that plants need grow.
- If there are plants in different stages in growth point out that just like animals, young plants resemble older plants.
- How do we use plants as resources? All of the animals on the farm eat the plants, you saw that we use plants to make materials, and we eat the plants too.
- *Notebook:* Record how plants are used as resources.

6. Schoolhouse

- On your way over to the schoolhouse have the students stop and feel the bark of a tree. Then have them feel the side of the schoolhouse. Discuss that the building is made from wood that comes from trees. This is another way that we use plants as a resource.
- You will see some rain barrels outside of the schoolhouse. Talk to the students about the importance of rain as a resource. It replenishes lakes, ponds, streams, and the ocean, which we use as sources for water. Water is another important resource for humans, plants, and animals.
- Inside the school house students can play with plastic food items. Reinforce the fact that plants provide us food. Have the students sort the food items into groups: fruit, vegetable, good for animals, good for people, etc.
- You will also find animal grooming and gardening equipment in the schoolhouse. Allow the students to look at and handle these items. Talk about how technology helped us to make these tools, which help us to be able to do more on the farm.
- *Notebook:* Record measurements made. Record types of groups created in the sorting activity.

7. Playground

- At the playground you will find a tractor that students can play on. Discuss with them that this is another form of technology that is used on the farm to help plant a lot of seeds and prepare the ground for the seeds. There is also an area where the students can pretend to be farmers and use plastic gardening tools in the sand.

8. Wrapping it up

- After your tour take a few minutes to have a closing discussion with the students. Ask the students to refer back to their notes during the discussion.
- Discuss what the plants and animals needed to survive. How did the plants and animals that you saw depend on each other? Explain that plants produce oxygen which humans and animals breathe and animals produce carbon dioxide which the plants use to produce food.
- How did we use the plants and animals as resources? Explain that these resources need to be taken care of and there are ways that we can make sure to use smaller amounts at a time.
- Use the observations recorded concerning the comparisons between animals to sort the farm animals into different groups. Discuss the types of groupings that can be made.
- Discuss the following conservation tips with the students:
 - Replanting seeds
 - Practice recycling with their lunch items. There are recycling bins available at the farm.
 - Use scratch paper or recycled paper for homework assignments.