



Inquiring Minds Want to Know

Science Activities for Young Minds

Build a Farm

WHAT YOU'LL NEED

- White plastic shower curtain or oversized poster board
- Assorted colors of permanent markers
- Magazines with photos of agriculture, farms, etc.

WHAT TO DO

Remember: The purpose is NOT to teach a specific topic but to help children experience the excitement of **science exploration!**

GETTING READY

Set out a large white shower curtain or oversized poster board, assorted permanent markers and magazines about agriculture.

LET'S GO

1. Have children tell you what is on a farm. *What makes it run? Why are these things on the farm? What is their purpose?*
2. Encourage them to decide what type of farm they will have. *Will their farm be specialized for vegetables, fruits, crops or livestock?*
3. Ask the children to imagine what their farm needs to look like. *How much land will they need to have? What types of buildings, roads, fences or feed equipment are needed? What is needed to keep animals safe?*
4. As the children discuss and plan how they will organize their farm, suggest looking at agricultural magazines or photos to get ideas. Ask children questions to encourage them to think about the placement of structures and roadways on their farm. *Where does the water come from? Where does it go after they are done using it (drainage)? When considering where to place roads or driveways, think about where they need to travel. What safety considerations do they need to make? Is there a busy street that could be dangerous for animals?*
5. Ask the children to draw their farm on the white plastic shower curtain or poster board using permanent markers. Encourage them to include as much detail as possible.



TALK IT OVER

Why is it important to decide how to lay out a farm?

Does it matter what type of farm it is? Why or why not?

What has to happen to the animals and plants grown on the farm before they get to the grocery store?

What things in a grocery store come from a farm?

How does the food made on the farm get to the store?

What happens to the poop from the animals on the farm?

What environmental issues might farmers need to think about?

GOOD TO KNOW

Suggest taking a field trip to a local farm or invite a farmer to speak to your group about his/her farm operation and layout.

THE SCIENCE BEHIND IT

It takes a lot of science to run a farm. Plant science, soil science, weather science, animal nutrition, animal breeding, genetics, environmental science, economics, technology, engineering for buildings and vehicles, and many others are needed to have a successful operation. Farmers carefully plan the location of animals and barns, and crop rotation to ensure a legacy of farming for future generations. The flow of water, times to plant, crops to rotate or plant together, equipment safety and animal safety are just a few of the well-researched topics studied by farmers.

RESOURCES

- ▶ Your local university Extension office – <http://msue.anr.msu.edu/county>.
- ▶ Science Blast website – http://4h.msu.edu/programs/science_technology/science_blast.
- ▶ Breakfast on the Farm – a wonderful opportunity to visit a working Michigan farm and learn about agriculture. Breakfast on the Farm website – http://msue.anr.msu.edu/resources/breakfast_on_the_farm.
- ▶ Explore a farm virtually at the 4-H Virtual Farm website from Virginia Cooperative Extension – <http://www.sites.ext.vt.edu/virtualfarm/>.
- ▶ Information on environmental topics can be found by contacting your local Soil Conservation District. Visit the Michigan Soil Conservation website – <http://macd.org/local-districts.html>.

MICHIGAN STATE UNIVERSITY | Extension

MSU is an affirmative-action, equal-opportunity employer, committed to achieving excellence through a diverse workforce and inclusive culture that encourages all people to reach their full potential. Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status or veteran status. Issued in furtherance of MSU Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Jeffrey W. Dwyer, Director, MSU Extension, East Lansing, MI 48824. This information is for educational purposes only. Reference to commercial products or trade names does not imply endorsement by MSU Extension or bias against those not mentioned. The 4-H Name and Emblem have special protections from Congress, protected by code 18 USC 707. Produced by ANR Creative for MSU Extension. 1P-WEB-11:2016-LJ/MR WCAG 2.0 AA.