

A Day at the Farm
Author: Sara Stevens
Illustrator: Betsy Buurma Morton

Teacher's Guide
Grade Levels 3-5

Suggested Pre-book Activities

1. Read/review the book: *The Lake I Didn't Remember* (first book in this series)
2. Discuss the key issues presented in the book.
3. Review vocabulary terms: watershed, pet waste, soil particles, fertilizer, phosphorus, nutrient, septic tank, aquatic plants, water environment, sediment, erosion, resource

Use the book for the definitions or have students share what they know about the terms. If you wish to extend the activity into a vocabulary time, you might divide into groups and have each group take a few of the terms and use both the book and a resource book to find the meanings.

Introduction to the new book, *A Day at the Farm*.

Share the cover of both books. Have students share likenesses and differences. Ask students to predict what this book might be about. If time allows, jot down these predictions to refer to as the book is being read.

Anticipation Guide: See separate sheet

Introduce or Review Vocabulary terms: watershed, phosphorus, nutrient, filter strips, pesticides, fertilizer, vegetation, sediments and erosion.

Question students as to why some of the terms are the same and some are new.

If time allows have students do a picture walk. The illustrations are very "kid like" which makes it fun for students to look for detail. Some students may even remark about how they might be capable of creating illustrations such as what Betsy has done.

Make a list of the types of farming that students are aware of being practiced in the watershed. (Dairy, cattle, pig, turkey, soybean, blueberry, celery, onion, sod, apple, nursery stock, etc.)

Question students as to the importance of these farms and how they impact our lives.

Read the story to the students, stopping to check anticipation guide/predictions. If there is a class set of the books, you may wish to have the students look for definitions of the terms introduced/reviewed prior to reading.

Suggested Post-reading activities

1. VENN diagram comparing the two books
2. Science experiments:
 - a. Ground water contamination
 - b. Plant growth under a variety of conditions
 - c. Sedimentation of soil
3. Small group activity/Cooperative learning

Scenario – Your family recently inherited a _____ farm from your Grandparents. The farm is located near a stream which flows into the Macatawa River (Black River), eventually emptying into Lake Macatawa. It is a working farm, but needs some updating as to the BMP (Best Management Practices).

Questions/Explanations

What BMP's would you put into place to help reduce the soil and other contaminants from getting into this nearby stream?

Where would you put these and why?

Using a large sheet of white paper, map out your plan. Include the buildings that would be on the farm, the equipment used, the location of the stream, crop or pasture depending on the type of farm and then draw in the BMP's which you have chosen to use. Remember, you can use some of the same BMP's in a variety of places.

Your goal is to reduce the amount of pollution that reaches the stream.

People Resources:

Kelly Goward – Macatawa Watershed Project Manager

(616) 395-2688 or e-mail: kgoward@the-macc.org

Local County Farm Bureau: <https://www.michfb.com/MI/mfb/countyfarmbureaumap.aspx>

Local Michigan Conservation District: <http://macd.org/local-districts.html>

Local MSU Extension Office: <http://msue.anr.msu.edu/county>

Materials:

U.S. Geological Survey
Branch of Information Services
Box 25286
Denver Federal Center
Denver, CO 80225
1-888-ASK-USGS (888-275-8747) website: www.usgs.gov

Presentation:

Using charts, graphs, tables and diagrams – Using information from the web site:
www.the-macc.org
R.A.F.T. – Response/Audience/Format/Topic

Students could play the role of the farmer meeting with an agricultural group to get them to use some of the BMP's that were shared in the book.

Name _____

Date _____

A Day at the Farm

Author: Sara Den Herder Stevens

Illustrator: Betsy Buurma Morton

Anticipation Guide

Directions: Circle **Y** if you think the statement is true, **N** if it is not true.

- | | | |
|---|---|---|
| 1. A watershed is an area where all the water travels over land. | Y | N |
| 2. The water in a watershed filters out fertilizers. | Y | N |
| 3. Phosphorus is a nutrient, which helps plants grow. | Y | N |
| 4. A high level of phosphorus is good for the water. | Y | N |
| 5. Pet wastes can get into the waters of a watershed. | Y | N |
| 6. Abundant weeds in the water are important for the fish. | Y | N |
| 7. Farmers use filter strips to help grow their crops. | Y | N |
| 8. Filter strips can be made from trees, rocks and plants | Y | N |
| 9. Filter strips can prevent fertilizers and pesticides from getting into the water. | Y | N |
| 10. Erosion can cause problems for the watershed. | Y | N |
| 11. Filter strips use up large amounts of land. | Y | N |
| 12. Farmers can get monetary assistance to help cover the cost of putting in filter strips. | Y | N |