

Can You Help the 19th Century Salt Marsh Farmer?

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Title: Can you Help the 19th Century Salt Marsh Farmer?**Background:**

Salt hay, the common name for different types of grasses, grows naturally in salt marshes along the Atlantic Seaboard including Scarborough Marsh in Scarborough, Maine (where I teach). Colonial settlers recognized the value of this grass; they harvested it and had their cattle graze on it. Many of the principles behind the harvesting of salt hay used today are the same as they were during the colonial period. In the nineteenth century salt hay had a variety of uses (i.e. fodder, insulation, packing material). The fact that it could be harvested annually without cultivation made it an extremely valuable crop. Many 19th century farmers using the tradition of their parents and grandparents began the salt hay harvest in early a summer and continued well into the winter months, or at least until all the hay was cut. Most of the work done on a salt marsh farm was by hand and horses, including the cutting, raking, loading, baling and transporting from a wet, muddy, mosquito-invested marsh. These 19th century farmers encountered a number of problems along the way.

Purpose:

To encourage students to analyze the problem solving process and to work together to apply their problem solving skills in creating solutions to the problems faced by 19th century salt marsh farmers.

Materials:

Background information on salt marsh farming
Illustrations of salt marsh farming
Chart paper
Pencil/pen/markers
3x5 sticky notes
Information about the CPS steps

Directions for Creative Process:

1. Explain the steps of the CPS model and post in the classroom.
2. Provide students with background information on salt marsh farming.
3. *Objective Finding Step* - Explain to the students the following situations 19th century salt marsh farmers faced:
 - If farmers can control the salinity level in the marsh, they can control the grasses that grow in the marsh.
 - If farmers don't find a way to store the salt hay on the marsh without it floating away, they will lose their crop.
 - If farmers don't find a way for the horse to pull the wagons without the horses and/or wagon sinking in the marsh, they will be unable to harvest their crop.

4. *Fact Finding Step*- In groups students will generate a list of all the data, facts, questions, and feelings to get a clearer picture of the problems as stated in the Objective Finding Step.

The following questions will help them in this process:

Who is involved?

What is (or is not) happening?

Where is it happening?

Why is it happening?

What don't you know?

What are your opinions?

5. *Problem Finding Step*- Students will redefine the problems in as many ways as possible and select a statement that most clearly identifies the three problems faced by 19th century salt marsh farmers students will resolve. Encourage students to go back to the Objective Finding Step. Once the class has identified a suitable statement, write it on the board.
6. *Idea Finding Step*- Students will generate as many different solutions as possible to the problems faced by 19th century salt marsh farmers. Have students (individually) write or draw their solutions on 3x5 sticky notes (each solution on a different sticky note). Encourage divergent thinking! At this point, student solutions can be outrageous and include materials and/or technology not available to farmers in the 1800's.
7. *Solution Finding Step*- Have students put all the solutions (sticky notes) they generated in the Idea Finding Step on the board. As a class determine the strengths and weaknesses of the solutions taking the ineffective solutions (stick notes) off the board. Continue this process until only the three most effective solutions remain. Consider the following questions: Will it work? Are the materials/technology available to 19th century salt marsh farmers?
8. *Acceptance Finding Step*- Students will develop their solutions to the problems faced by 19th century farmers including a drawing/diagram. Students should identify resources needed; who/what will assist in implementing the solutions.
9. Evaluation:

See rubric

Extension:

Students can compare/contrast their solutions with the solutions 19th century farmers used. Share illustrations of salt marsh farming techniques and their solutions.

- Farmers controlled the salinity level in the marsh and the grasses that grew in

the marsh by using a dike and valve system

- Farmers stored the salt hay on the marsh without it floating away by using staddles.
- Farmers used corduroy roads and bog shoes to keep the horse pulled wagons from sinking in the marsh

References:

Russel, H (1982). *A Long Deep Furrow: Three Centuries of Farming in New England*. Hanover, NH: UNH Press.

Smith, D. (1985). Salt Marsh Dikes. *Salt*, VII (26).

Salt Marsh Farmer-Creative Problem Solving Rubric

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	You'd make an excellent salt marsh farmer (4)	You'd be a good salt marsh farmer (3)	You tried to be salt marsh farmer (2)	You should consider another profession (1)	Score
Understands salt marsh farmer's situation (Fact Finding)	Creates a thorough list of facts and questions related to problems	Creates an adequate list of facts and questions related to problems	Creates an insufficient list of facts and questions related to problems	Not much of a list	
Identifies salt marsh farmer's problems (Problem Finding)	Articulates a clear, complete understanding of problems	Demonstrates understanding of problems	Shows vague, unfocused understanding of problems	Is unaware of problems	
Comes up with solutions to salt marsh farmers problem (Idea Finding)	Generates a thorough list of possible solutions	Generates an adequate list of possible solutions	Generates an insufficient list of possible solutions	Not much of a list	
Chooses solutions to salt marsh farmer's problems (Solution Finding)	Chooses the most appropriate solutions and gives reasons to support choice	Chooses a solution after considering other possibilities	Chooses a solution without comparison to other possibilities	Unable to identify a reasonable solution	

