Let's Farm!

Objective: Students will learn about the variety in agricultural-related activities.

Summary: Students will grow an agricultural product, market and use it.

Time: 2 hours initial planning, several minutes each day for plant care, one hour on market day for culmination.

Student Grouping: Five to six students per group

Materials: Part of this activity is having the students acquire materials. You will need to provide a few books on growing seeds and plants for them to refer to. With simple planning, $5 per group seed/soil money will get the project going.

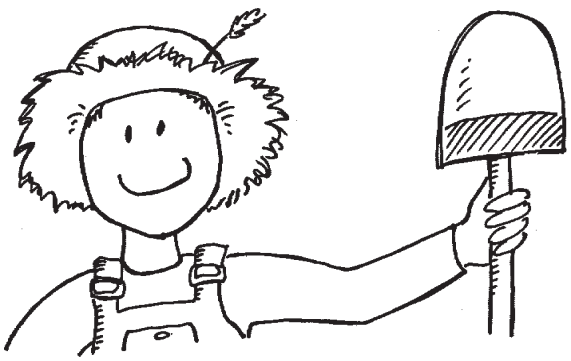
Background Information: Today's farmers must not only know how to drive a tractor, but they must also use computers and calculators and know their way around banks and markets. Agriculture is a business that requires good management and marketing skills as well as an understanding of transportation, the science of breeding, weather and basic mechanics. In this activity students will consider several products they will try to produce, package and market. Students will read, research, use science and math processes, and probably get some exercise as well. The produce will be a type of salad green. These grow well at cooler times of year and in washtub-sized containers. Nurseries offer several varieties of greens (seeds) that can be grown.

Students will decide on a variety of salad green to market. They will be responsible for growing/collecting the produce and need to be resourceful, working in small volume in order to keep costs down. They will make up a budget and plan their packaging and marketing strategies, then try them out firsthand. Nurseries often have leftover planting containers they may give you free. Backyard soil is not ideal but will work in place of buying expensive sacks of soil. Free manure is generally available from local ranchers. If there is a friendly hardware, nursery or planting supply store nearby, you or a student may convince them to donate some planting soil. Marketing will vary. Consider a mock classroom or school grocery, or trade with classroom parents for their help with driving and capital investment.

Marin Ag. Facts: In 2006 Marin County's gross agricultural income totaled $49 million dollars. There are 276 farms on approximately 167,000 acres of land, covering about half of the county's land base. Most of these farms are owned and operated by families or a partnership of family members.

Our agricultural products are sold all over the world. Marin County produces about 25 percent of the Bay Area's milk. Dairy products account for about 51 percent of the total agricultural income of this area. Beef operations are the next biggest agricultural producers. The Nicholas Turkey Farm, which has a Marin County branch, sells fertile eggs all over the world. Marin County also produces poultry, eggs, lamb, wool, hay, silage, nursery crops, fruits, nuts and vegetables. Products are sold to restaurants, large and small commercial markets, and at farmer's markets.

The operators of the Marin County Farmer's Market manage a year-round market at the Civic Center and seasonal markets in San Rafael and Novato. These markets have been so successful, the same group has set up and operates markets in Vallejo and Oakland.



Preparation:

1. Plan well ahead for this one.
2. Decide how you will group students. Make copies of the handout for each student to work from.
3. Find some gardening books and directions for growing seed sprouts (see "Gardens and gardening" in Resources Directory). Used-book stores and libraries will have lots of these.
4. Make up a timeline for completion of the "Farming Plan" and market.
5. Decide if students will have a classroom market (you can invite the rest of the school and/or parents) or sell/trade to their families. If money is involved, how will it be spent/distributed? We recommend pooling the class income for a class purchase.

Procedure:

1. Introduce the idea to students. You may want to use "Life Story of a Lunch" on page 77 as an introduction.
2. Break class into groups and distribute the "Let's Farm Planning Guide." Let them know you will be giving each group $5 as start-up money for them to grow a salad green. Allow two hours over one week for developing the "Farming Plan."
3. Review and troubleshoot the plan with each group at the end of the week before giving them their $5. Allowing them to make mistakes will be instructive; discouraging overly elaborate plans may be necessary.
4. The marketing event is almost the culmination of this activity. Taking time in class to discuss the experience, using the questions for discussion, can be very instructive.
5. If the class has made some money, they can decide as a group how to spend it.

Questions for Discussion:

- Where do farmers get their start-up money?
- What were the hardest parts of being a farmer?
- What were your biggest expenses?
- Would a real farmer have any expenses you didn't have?
- What are some local farms producing, and do you think they make very much money?
- Would you like to be a farmer? Why or why not?

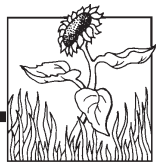
Extensions:

- Try some other products. Have each class group market one of these to make a real grocery product at the end of the project. Timing will be more difficult, but the task is definitely possible. Here are some products that are relatively easy to obtain or grow and will hold costs down: Apples, oranges, lemons, rhubarb, flowers or any other backyard crop available from a class member's home. The students could decide to make applesauce, apple butter, marmalade (see *Joy of Cooking* for recipes and canning procedures) or just work on harvesting, packaging, transporting and marketing the product.

  Sprouted seeds: These are fairly simple to grow in shallow pans (available free at many nurseries) and are often sold as additions to, or sole ingredients for, salads. Consider growing: lentils, garbanzos and radish seeds. Mung bean sprouts are used in Asian cooking as well as salads.

  Radishes: These grow quickly from seed in a limited space and can be bunched with rubber bands for selling.

  Plant starts: Starting vegetable and flower seeds in the spring and selling them for transplant into home gardens is quick and inexpensive using cut-off milk cartons, egg cartons, or any other usually discarded small container.
- Have a farmer come to your classroom to talk to your students and to hear about their projects and give advice.
- Produce can be entered in the county fair competitions if timing is right (see Resources Directory listing for Marin County Fair and Exposition).
- Take a field trip to the Farmer's Market early on so students can ask questions, see prices and use this information in their plans.
- Return to the Farmer's Market after the activity. Now that the students have more experience, they will appreciate the amount of work represented there.



Let's Farm Planning Guide

Farmers' Names: _____

_____

Farm's Name: _____

1. What will your farm grow/sell?

2. What will you need to grow it? (Look at a gardening book to help make this list.)

3. Make a list of what you'll need to buy/find.

4. How much will this cost?

5. How will you package it?

6. How much will this cost?

7. How will you sell it? Who will buy it?

8. How will you transport it to market?

9. What are your total costs?

10. What does it sell for in stores? How much can you sell it for?

11. Will it cost more to produce it than you can earn by selling it? If so, go back over your plan and see where you can cut costs. Can you reuse containers to grow or package in? Can you trade some of your work or produce for materials or transportation?

Guía de Planeación — ¡Vamos a Sembrar!

Nombres de los agricultores _____

_____

Nombre de la granja_____

1. ¿ Qué va a producir/vender su granja?

2. ¿ Qué van a necesitar para cultivar lo que venden? (Busquen la información en un libro sobre el cuidado de plantas.)

3. Distribuyan las cosas de la lista No. 2 para que los estudiantes compartan la responsabilidad de encontrarlas o comprarlas.

4. ¿ Cuánto van a costar?

5. ¿ Cómo van a empacar su producto?

6. ¿ Cuánto va a costar empacarlo?

7. ¿ Cómo van a vender su producto? ¿ Quién lo va a comprar?

8. ¿ Cómo van a transportar su producto al mercado?

9. ¿ Cuáles son sus costos en total?

10. ¿ Por cuánto pueden venderlo personalmente? ¿ Por cuánto se vende en las tiendas?

11. ¿ Va a costar más producirlo o venderlo? De ser así, revisen su plan para averiguar dónde pueden recortar gastos. ¿ Pueden reciclar los recipientes de cultivo o de empaque? ¿ Pueden intercambiar su trabajo o producto por materiales o transportación?