FUNdamentals of Farming

Farming is a risky business. Droughts and severe storms, equipment problems and outbreaks of animal disease can all occur unexpectedly and decrease a farmer's earnings.

There are practices farmers can use to protect their animals from disease. Animals can be vaccinated before bringing them onto the farm to protect against certain diseases. This is a great way to prevent certain diseases, but it can be expensive. Another way to prevent disease is to quarantine new animals when they arrive on the farm. By keeping new animals separate from existing animals for a period of time, farmers can see that the new animals are healthy before introducing them to the herd. Depending the length of the quarantine, this may also be an expensive option.

To save money, some farmers may choose to not use disease prevention practices. However, sometimes animals can carry a virus, bacteria or pest and not appear sick. If a farmer purchases one of these animals and it infects the existing herd, it could end up costing more than a prevention option.

Purpose: To teach students about animal disease management.

Goal: To make as much money as possible for each team's farm by buying, raising, and selling pigs.

Ages: 13+

Time to Play: 1 hour

Game Inventory:

- Game board (1)
- Large pen (4)
- Small pen (4)
- Barn cards (1 set, total of 40 cards)
- Game pieces (6)
- Pig cards (1 set, total of 192 cards)
- Money (50- $100 bills; 40- $50 bills; 100- $20 bills; 60- $10 bills; 100- $5 bills)
- Checks and balances sheets (12 total)
- Cost list (4)

You will need to provide:

- 4 green and 4 yellow dry erase markers (1 green and 1 yellow marker per team)

- 4 Pencils (1 per team)
- Scissors
- Paper

Each team will start the game with:

- 1 large pig pen
- $1000 (Five $100s; Two $50s; Ten $20s; Ten $10s; and Twenty $5s)
- 2 checks and balances sheets
- 1 game piece

Game Setup:

Divide the students into four teams of 4 students. Number the teams 1 through 4.

Place the entire set of barn cards on the space labeled "Barn Pile" in the center of the game board.

NOTE: For large groups, you may want to divide the class in half, and then create 4 teams (8 teams total) playing on two separate game boards. If you set up 2 game boards, you will need two sets of all the materials listed above.

Each player on the team should be assigned one of the roles listed below. If there are fewer or more than 4 people on a team, players may hold multiple roles or share tasks.

Team Roles

Farmer: This player will be the team leader. He or she will inform the accountant of money earned and spent, coordinate the buying and selling of animals with the purchaser, and will make sure the farm has the equipment needed.

Accountant: This player will keep track of money spent and earned on the checks and balance sheet.

Purchaser: This player will be responsible for the buying and selling of pigs. The purchaser will also keep track of each pig's health status by marking the pig with the appropriate color marker.

Veterinarian: This player will work with the team to develop a disease prevention strategy. The veterinarian will make the final decision regarding purchasing vaccinated or unvaccinated animals, and quarantine.

As the facilitator, you will run the slaughterhouse and auction. You will sell pigs to and buy pigs from each team and collect/pay money. The prices for pigs bought or sold at auction or sold to slaughter are listed on pages 3 and 4.

Let's Play:

1. First allow all teams a few minutes to discuss their strategy for disease management. It may be helpful to read the introduction from the instruction sheet to this game aloud if students have no background in disease management concepts. Strategies teams should consider include: buying some or all vaccinated pigs; quarantining some or all unvaccinated pigs; or accepting the risk of introducing unvaccinated pigs directly onto the farm. Each team can choose to purchase a quarantine pen ("small pen") at the start of the game ($300 per pen) or when they land on a blue auction space (see below).

2. Some general rules to consider:
    - Teams can buy and sell pigs throughout the game at auction or slaughter when allowed (see space color instructions below).
    - There is no limit to the number of pigs that can be bought and kept in the large pig pen.
    - Each quarantine pen can hold a maximum of 10 pigs.
    - If a team decides to quarantine pigs, that team will have to forfeit their next turn to account for the time a pig remains on the farm but not in production.

3. To begin: each team places a game piece on the "start" space of the game board. Team 1 begins the game. During each turn, teams will roll the die and advance their piece forward the number of spaces indicated, in the direction of the arrow.

4. Each team must follow the instructions for the space where they land.

    Blue spaces: The auction is open (but the slaughterhouse is closed). The team may only buy and sell pigs at auction (see prices; same for buying or selling). Take the dry erase marker and mark the ear tags of all *vaccinated* pigs purchased with a green marker. Mark unvaccinated pigs that will be *quarantined* on the farm with a yellow marker. Unvaccinated pigs that will not quarantined are not marked. NOTE: If a team chooses to quarantine, they MUST own a quarantine pen first! Quarantine pens can be purchased from the auction.

Auction prices

- Unvaccinated pig= $10.00 (each)
- Vaccinated pig= $20.00 (each)

Green spaces: The slaughterhouse is open (but the auction is closed). Your team may only sell pigs to slaughter (see prices).

Slaughter House Prices

- Unvaccinated pigs = $20.00 (each)
- Quarantined pigs = $25.00 (each)
- Vaccinated pigs = $30.00 (each)

Yellow (safety) spaces: The auction and slaughterhouse are closed. The team should use this time to discuss and revise animal disease management strategies.

Draw Card spaces: When a team lands on a "Draw Card from Barn Pile" space they must draw a card from the barn card pile and follow the instructions on the card. The team must read the instructions aloud as the event on the card may impact more than one team.

5. The Accountant for the team must fill out the checks and balances sheet for all money spent and earned. (See the checks and balances sheet for examples.)

6. As the teams advance around the board, they will pass spaces that indicate the start of a new day. On the start of each new day, teams must pay $20 per 5 pigs in overhead costs (feed, electric, payroll etc.) for the pigs currently on the farm. ($20.00 1-5 pigs; $40.00 6-10 pigs; $60.00 (11-15 pigs); $80.00 16-20 pigs; $100 21-25 pigs; $120 26-30 pigs; $140 31-35 pigs; $160 36-40 pigs)

Finishing the Game: Once teams have completed two trips around the board, the game is over. Teams should tally up their farm's value which includes the sum of: money, pigs (valued at slaughter prices) and the quarantine pen (valued at its original purchase price), if applicable. The team that has the most money wins!