

Farmer Ben's Farm Hand

Standards of Learning

This lesson is adaptable to multiple grade/ability levels and may address the following mathematics strands:

- Number and Number Sense
- Computation and Estimation
- Patterns, Functions, and Algebra

Samples clues are given below and represent several adaptations of this lesson.

Objective

Objectives reflect multiple adaptations of lesson.

The student will be able to:

- recognize and extend a pattern
- recognize numerals 0-100
- solve addition/subtraction/multiplication/division problems
- recognize place values
- recognize odd and even numbers
- identify place value

Materials

- copy of hundreds chart for each student (*you may download from the AITC website, www.agintheclass.org*)
- corn or wheat Chex
- M&Ms
- square, "window pane," pretzels
- Skittles
- plastic baggies

Background Knowledge

A need is something necessary for survival. Farm animals need air, water, food, shelter, and care. It is the farmer's responsibility to provide these necessities to his or her animals.

Hay or grain is available in winter and during drought for beef cattle when those on the pasture would otherwise not have enough food. Through participation in Beef Quality Assurance programs, beef producers demonstrate concern for animal well-being and a commitment to food safety and quality.

Dairy cows are checked for health and wellness at least twice a day during milking. More than 3.5 million tests conducted each year ensure milk supplies are wholesome and safe. Each sow or mother pig is monitored during birth to ensure her safety and that of the piglets. More than 10,000 U.S. pork producers adhere to Pork Quality Assurance Plus practices for improved animal and herd health management.

Indoor poultry facilities are cleaned between flocks and throughout the year. Producers that care for more than 200 million egg-laying hens participate in the United Egg Producers Certified program. This program assures eggs originate from farms that follow responsible, science-based production methods.



Veterinary specialists routinely check horses' mouths for healthy gums and teeth, sometimes during extractions and dental surgery. It costs about \$2,300 annually to feed and shelter one horse. Horses on ranches are usually used for herding, which can help reduce the stress on cattle.

Prepare for lesson by pre-packaging baggies for each student with above food items.

Procedure

1. Distribute hundreds chart to students. Tell them this is Farmer Ben's farm. He is very busy taking care of his animals and needs their help.
2. First, ask students to list different animals that might live on a farm as well as what products we get from them. Example: dairy cows give milk and hogs give bacon.
3. Ask students to brainstorm different things that Farmer Ben might have to do to take care of his animals. Tell them that Farmer Ben's animals need food, water, shelter, and health care. They will be helping Farmer Ben provide this for his animals.
4. Distribute baggies with food items in them. Tell students that the Chex represents food. The Chex are a grain; farm animals eat grain too.
5. Turn the M&Ms upside-down to create Ws, this is water. Farmer Ben must be sure that his animals have plenty of fresh water to drink.
6. The square pretzels look like windows and they represent shelter. Shelter may be a barn, poultry house, or pen.
7. The Skittles are vitamins. Farmer Ben takes care of his animals and makes sure that they stay healthy.
8. Now begin reading the clues that Farmer Ben has given to help students locate where on the farm they should place the appropriate item.
9. Read clues aloud and ask students to share their answers to check for understanding.

Sample Clues

- **Numbers and Number Sense**
 - i. Place water on numbers with an 8 in the ones place
 - ii. Place vitamins on the number that has a 5 in both the ones and the tens place.
 - iii. Place food on all the numbers that are less than 93 but greater than or equal to 86
 - iv. Place shelter on even numbers which are greater than 31 but less than 37
- **Computation and Estimation**
 - i. Place shelter on the sum of 3 and 7
 - ii. Place food on the number that is the difference between 86 and 67
 - iii. Place water on the number that is the product of 4 and 8
 - iv. Place vitamins on the number that is the sum of 26 and 51
 - v. Place water on numbers which are divisible by 5 and greater than 10 but less than 30
- **Patterns, Functions, and Algebra**
 - i. Place food on 11, 13, and 15 and water on 12 and 14. What comes next?
 - ii. Place shelter on numbers 100, 97, 94, and 91. What are the next 3 numbers where shelter should be placed?

Extension



Have students choose a farm animal that they would like Farmer Ben to raise. Draw a picture depicting the animal as well as its needs.

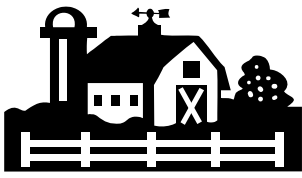
Have students create a Venn Diagram comparing and contrasting the needs of farm animals and the needs of humans.

Journal Prompt: Pretend you are Farmer Ben, describe what a day is like for you. What are your responsibilities?



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Farmer Ben's Farm

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

