A Hundred Bales of Hay

Objective
Students explore hundreds, using a variety of methods and content, while learning about hay and its connections to humans and animals.

Materials
- square wheat cereal to represent
- hay bales
- animal crackers
- other small manipulatives to use on
- hundreds chart

Procedures
1. Hand out copies of the hundreds chart included with this lesson and an assortment of small objects for covering the squares on the hundreds chart—square wheat cereal (to represent hay bales), animal crackers (to represent animals that eat hay), small crackers, pennies, raisins, etc.
   —Students will follow directions as you read them from the Hundreds Activities Page.
   —Adjust instructions as necessary for the objects you have provided.
   —Students may work in pairs or individually
   —As an alternative, students may cut the pictures on the picture page and use them on the hundreds chart to follow your directions.
2. Provide each student with a copy of the picture page included with this lesson.
   —Discuss the pictures.
   —Students will examine the picture page and look for patterns.
3. Students will cut the pictures on the dotted lines.
   —Students will sort the pictures into stacks according to the pictures (one stack of round hay bales, one stack of cows, etc.)
   —Ask how many pictures are in each stack.
   —Students will make their own patterns, using the pictures.
   —Laminate the hundreds chart and pictures, and place magnets on the backs to make a guided center activity.
4. Bring a straw bale to class. (In the fall, bales of straw are available in many places as Halloween decorations.)
   —Discuss with your students the difference between hay and straw. (Straw is the stubble left over after the harvest of wheat or other grain crops. Straw is commonly used for animal bedding and sometimes even for construction of homes. Straw also provides a good mulch for home gardens. Hay has nutritional value and is used for animal feed.)
   —Students will describe and draw the shape of the straw bale. Is the bale two-dimensional or three dimensional?
   —Students will measure the dimensions and find the area. Ask them how they would find the volume.

Hundreds Activities Page

Students will follow these instructions, using the hundred chart and pictures on the following pages or square wheat cereal pieces, animal crackers and other manipulatives. (Adjust directions to fit the manipulatives you choose to use.)

1. Use your round hay bales to cover all the numbers with a 5 in them. How many round hay bales did you use? Remove the round hay bales covering these numbers—5, 25, 57, 65, 75, etc. Now clear your chart, and use your square hay bales to cover all the numbers with a 5 in the ones place. How many square hay bales did you use? Leave the square hay bales on the chart and use your cows to cover all the numbers that have 5 in the tens place. How many cows did you use? What do you have on 55? Why? Repeat this activity, focusing on another number between 0 and 9.

2. Use your horses to cover the following numbers as I say them: 1, 12, 23, 34, 45, 56, 67, 78, 89, 100.
   —What kind of pattern do you see? (diagonal)
   —What is the smallest number you have covered? The largest?
   —Do you have 23 covered on your board? How do you know?
   —Which number is one more than 33? How do you know?
   —Which number is 10 more than 34? How do you know?
   —Put your finger on the horse covering 67. How did you find it? What number is one more than 67? Ten more than 67? One less than 67? 10 less than 67?

3. Use your sheep to cover the following numbers:
   —Cover the number that means one ten and four ones.
   —Cover the number that means no tens and seven ones.
   —Cover the number that means five tens and no ones.
   —Cover the number that has the same digit in both the tens and the ones place.

4. Use any object or picture to cover all the numbers that end with the digit 6. How many squares did you cover? What is the smallest number you covered? The largest number? Say each number and then check it by looking under the picture. Discuss with each other any patterns you see in the column that starts with a 6 and ends with 96.

5. Choose any object or picture to cover the numbers that answer these number riddles:
   —I am thinking of a number with a 6 in the tens place and a 1 in the ones place. I am thinking of a number with a 1 in the tens place and a 6 in the ones place. Are the numbers the same? How do you know?
   —Cover the smallest two-digit number on your hundred board.
   —Cover the largest two-digit number on your board.
   —Cover a three-digit number.
   —What number is larger than 2 tens and 3 ones, but smaller than 2 tens and 5 ones?
   —Cover the largest two-digit number with a 3 in the ones place.
   —Cover the smallest two-digit number with a 5 in the tens place.
   —Cover the two-digit number that has a 7 in the tens place and in the ones place.
   —Cover evens, odds, primes, composites, multiples of 2,5,10 . . .

Hundreds Chart

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

Hundreds Chart
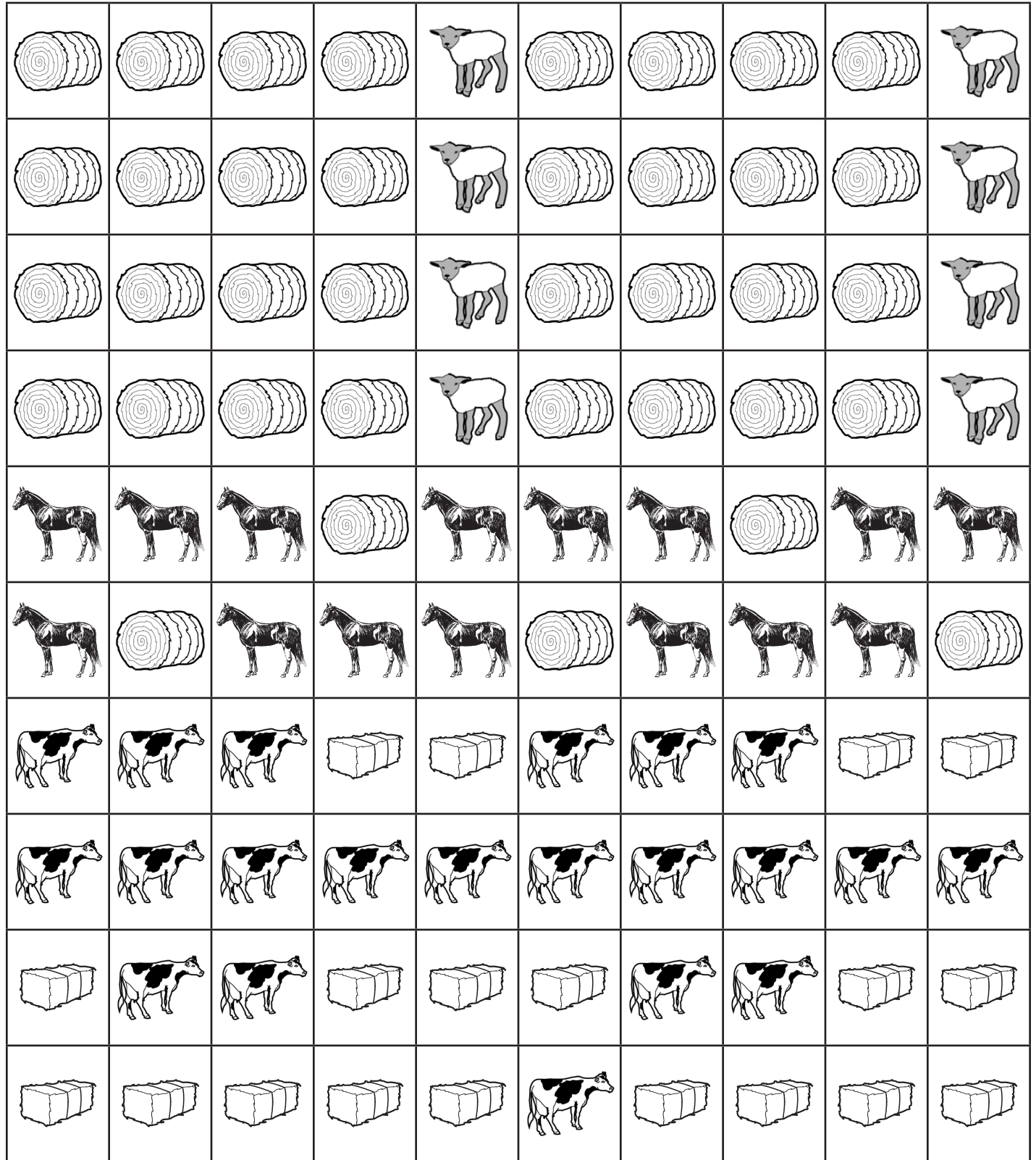
Oklahoma Ag in the Classroom is a program of the Oklahoma Cooperative Extension Service, the Oklahoma Department of Agriculture, Food and Forestry and the Oklahoma State Department of Education.