



**Grade Level:** K-3

**Essential Skills:** 3,4, 5

**Math:** K.OA.1, K.OA.2, K.NBT.1, 1.OA.1, 1.OA.6, 1.NBT.2, 2.OA.1, 2.NBT.1, 3.NBT.2

**Time:** 50 minutes

**Materials:**

- Square wheat cereal to represent hay bales
- Original Captain Crunch
- Animal Crackers
- Raisins
- Marshmallows
- Hundreds Chart
- Teacher Instructions Page

**[AITC Library Resources:](#)**

*Books:*  
*Hey, Hey, Hay!*

**More Lessons:**

From Wheat to Macaroni  
Wheat Milling and Counting

# Lesson to Grow

## A Hundred Bales of Hay

**Description:**

Students learn about hay and its connection to agriculture while also learning about counting, adding and subtracting.

**Background:**

Hay is a grass, legume or other herbaceous plant that has been cut, dried, baled and stored for use as forage for livestock animals. Some common hay types include alfalfa, timothy and orchard grass.

Growers look at grass maturity when deciding when to harvest hay. After cutting the grass, it takes about three days of dry weather for the hay to cure. Drying the hay allows for better storage and less spoilage. After curing, the hay is raked into windrows for bailing. The hay must be baled at the correct moisture level to ensure that hay does not mold or spontaneously combust. Hay is made into a square or round bale and may be small or large in size.

**Consider reading the book *Hey, Hey, Hay!* for more background information for students. The book is available to borrow through our lending library.**

**Directions:**

- 1) Distribute the hundreds chart to students and an assortment of small objects for covering the squares on the chart. An assortment of snack foods is always exciting for students, use square wheat cereal to represent round hay bales, animal crackers to represent animals that eat hay, marshmallows to represent sheep, raisins for cows, and Captain Crunch for square bales or have students cut out the pictures included with this lesson to use.
- 2) Read the directions to students using the Teacher Instructions page and have students follow along doing each action you ask of them using the assortment of snacks you provided or the cutouts.



*Lesson Adapted From Oklahoma Agriculture in the Classroom*



# Teacher Instructions

## Hundreds Activity Page Scenario

Read the following instructions to students as they use their assortment of snacks to cover number boxes on their hundreds activity page.

**Scenario:** Each of you are farmers who are taking inventory of your hay crop to feed your cows, horses, and sheep.

**1. Using your horses that are represented by animal crackers cover all the numbers with a 5 in them. Remove horses covering 50, 51, 5, 95.**

*How many horses are left? (Answer: 16 Horses) In this activity, each of you own 16 horses that you feed and take care of. Next we are going to look at how much hay we need to feed these horses for one week. Remove all of the horses on your chart.*

**2. Using your square bales that are represented by Captain Crunch cereal, cover all the numbers with a 1 or 0 in them.**

*How many square hay bales did you use? (Answer: 28)*

*The amount of square bales you have on your sheet right now is enough to feed your 16 horses for a week. Each horse will eat approximately 20 lbs. of hay a day, with 80 lbs. square bales.*

**3. Using your cows that are represented by animal crackers, cover numbers 1-40.**

*How many cows are there? You own 40 cows in this activity. Now, we are going to look at how much hay 40 (1,000 lbs) cows eat in a week. Remove all of your cows from the chart.*

**4. Using your round bales that are represented by wheat cereal, cover the following numbers as I say them: 12, 23, 34, 45, 56, 67, 78, 89.**

- 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?
- How many round bales did you use? (Answer: 8)

*The amount of round bales you have on your sheet is enough to feed 40 cows for a week. Each cow will eat approximately 25 lbs. of hay, using 1,000 lbs round bales.*

**5. Using your sheep represented by marshmallows, 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.
- Cover the number that is three digits long.
- Cover the number that eight tens and seven ones.

*How many sheep are there? (Answer: 6 sheep) You own 6 sheep, how many small bales do you think we will need to feed the sheep for a week? Clear you charts and let's take a look!*

**6. Using the square bales that are represented by Captain Crunch cereal, cover the smallest number on the page and the largest number on the page.**

*How many square bales do you have? (Answer: 2) The square bales you have on your sheet is enough to feed 6 sheep for a week. Each sheep will eat approximately 4 lbs of hay per day.*

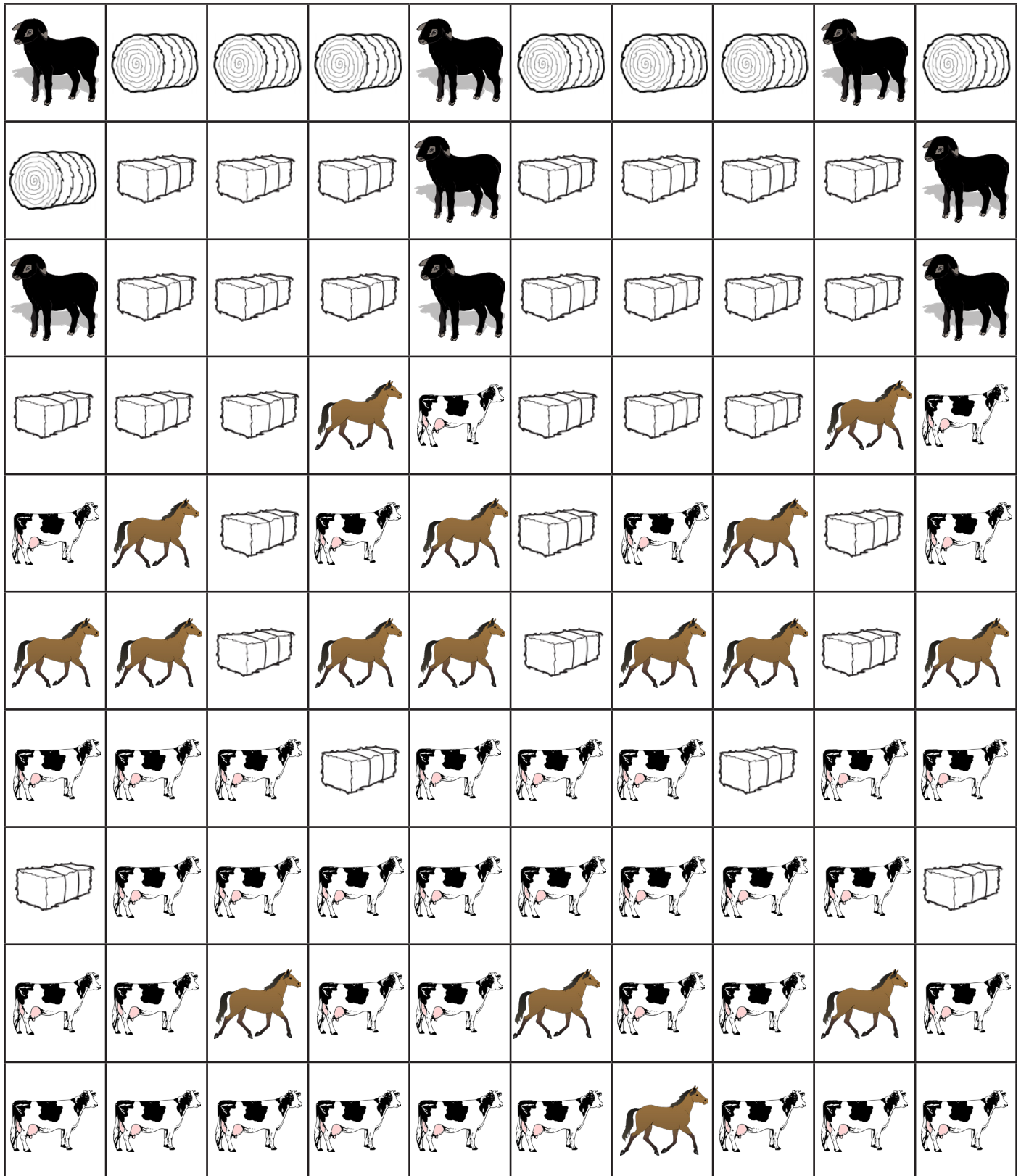
**7. For further number riddles: have students choose any object to mark the number in the following scenarios:**

- I am thinking of a number with a 6 in the tens place and a one 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.
- 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 that has a 7 in the tens place and in the ones place.
- Cover evens, odds, primes, composites, multiples of 2, 5, 10 .



# Activity

## Hundreds Activity Page Cutouts





## Hundreds Activity Page

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