## Grade Level

4-6

## Length of Lesson

 45 minutes
## Objective

By the end of this lesson, students will have gained skills in the converting of measurements.

## Materials Needed

- Copies of the student worksheet


## Standards

Math
6.A.2a; 6.B.2a; 6.C.2a;
7.A.2a; 7.A.2b

## Lesson Summary

This lesson is designed to help students increase their math skills by practicing converting units of measurement. Students will learn about a universal unit of measurement for measuring the height of a horse and converting that into feet and inches.

## Suggested Sequence of Events:

1. Read through the IAITC Horse Ag Mag to learn more about horses! Interactive online versions can be found on our website.
2. Complete the activity following the procedures:

- Read "If I Ran the Horse Show: All About Horses" by Bonnie Worth to snag student interest and introduce students to horse life.
- Give each student a copy of the student worksheet and have them convert all measurements.

4. Whole class discussion and reflection of activity. Go over the answers as a class and have students share their work on the board.

## TEACHER RESOURCES

## Answer Key:

Bella: 3 feet 7 inches
Apollo: 4 feet 7 inches
Clover: 5 feet 8 inches
Lightning: 4 feet 4 inches
Pixy: 4 feet 0 inches
Houdini: 5 feet 1 inch

Horse hoof: 3.5 inches and 8.89 centimeters.
Horseshoe: Yes because it is only $1 / 2$ inch larger than the hoof and can be bent to fit.

## Extension Ideas:

- Give students the height of horses in feet and inches and have them convert the height into hands. The unit of measurement for hands is "hh" or "hands high".
- Measure your students' heights and have them convert their own height into hands.
- Have students complete our "Ag-Venture With Horse" worksheet that pairs with our Horse Ag Mag to strengthen student non-fiction skills while learning more about horses.
- Read "Horses" by Gail Gibbons to learn more about horses and their history.
- Show a labeled diagram of a horse and have students label their own horse diagram.
- Have students go to this website and learn about a variety of horse breeds! Website can be found at http://afs.okstate.edu/breeds/horses/
- Invite a horse handler into the classroom.
- Take a closer look at horses on farms and ranches. What are some of the purposes of having a horse? How are they used for work, for hobby, or for sport? How are horses useful beyond the farm?
- Take this a step further and learn about how the use of horses has changed over time.
- Have students tell a fictional story about a horse.
- Learn about what it takes to care for a horse.
- Go to agintheclassroom.org to contact your County Literacy Coordinator for free classroom sets of our Ag Mags!

Whether it's for selling and buying or studying and categorizing, measuring the height of a horse has been an important task in the horse, or equine, industry. Horses are measured from the withers (where the neck meets the back) all the way down to the ground. It doesn't take a lot of time now a days, but there used to be a time when rulers and measuring tapes did not exist and so people just used their hands. It turns out that our hands are not all the same size and so in the 1700s it was established that a "hand" measures 4 inches.

Let's put your math skills to the test and see if you can convert hands into feet and inches!

Directions: First look at the key and the example given to help you figure out how to convert the measurements. Then, use these as a guide as you convert the height measurements for the remaining horses!


## BELLA

is 11 hands tall. How tall is she in feet and inches?

Bella is $\qquad$ feet and $\qquad$ inches tall.

## APOLLO

is 14 hands tall. How tall is he in feet and inches?

Apollo is $\qquad$ feet and $\qquad$ inches tall.


## CLOVER

Is 17.3 hands tall. How tall is she in feet and inches?

Clover is $\qquad$ feet and $\qquad$ inches tall.

## LIGHTNING

is 13.2 hands tall. How tall is he in feet and inches?

Lightening is $\qquad$ feet and $\qquad$ inches tall.


## PIXY

is 12.1 hands tall. How tall is she in feet and inches?

Pixy is $\qquad$ feet and $\qquad$ inches tall.

## HOUDINI

is 15.3 hands tall. How tall is he in feet and inches?

Houdini is $\qquad$ feet and $\qquad$ inches tall.


The diagram on the left shows the bottom of a horse's hoof.

How wide is this hoof?
$\qquad$ inches
$\qquad$ centimeters


Horses who will be walking long distances or will be walking
 on a hard surface need to wear "shoes" to protect their hooves! Horseshoes come in many different sizes but can be bent $1 / 2$ in with a hammer.

Will this horseshoe fit the hoof above? (Circle one)
YES OR No

Why or why not?


