Prediction and Measurement of Apples and Seeds

Objective:
To predict, measure, and compare the height, weight, circumference and number of seeds in each apple.

Second Grade Standards:
- 2.MD.1 I can use different tools to measure objects
- 2.MD.3 I can estimate lengths using units of inches, feet, centimeters and meters
- 2.NBT.2 I can count within 1000. I can skip count by 5s, 10s and 100s
- 2.MD.10 I can draw a picture graph or a bar graph to represent data

Third Grade Standards:
- 3.MD.3 I can create a bar graph to represent data
- 3.MD.4 I can collect measurement data by measuring objects to the nearest half or fourth of an inch using a ruler

Materials:
- Attached Worksheets
- Ruler
- String
- Scale
- Bag of Applewood™ Fresh + The Produce Moms® Apples
- Apple Slicer or Knife

Lesson:

- After watching the virtual field trip, talk to the students about how we can measure objects such as apples to find their height, weight and circumference — demonstrate each using an object other than an apple.
- Discuss what it means to predict and have students practice predicting the height of objects around the room and then measure to show actual height.
- Pass out one worksheet to each student and have them predict the weight of one entire bag of apples. They will write their prediction in the box on the paper. Then use a scale to measure the bag and have the students write the correct weight in the second box. In the third box, they'll fill in the blank to tell if their prediction was heavier or lighter than the actual weight.
- Then pass out one apple to each pair of students. They will work together to predict and measure their specific apple.
    - Height – they'll predict how tall they think their apple is in both inches and centimeters. Then use a ruler to measure.
    - Circumference – they'll predict how round their apple is in both inches and centimeters. Then they'll use the string to wrap around the apple and cut it at the correct length. Next, they will put the string next to a ruler to find the actual measurement.
    - Number of seeds – the students will first predict how many seeds they think their apple has. Next, the teacher will cut the apple, and the students will find the seeds and count them.
- Come back together as class. Have students write down 4 things they enjoy doing at an apple orchard. Next, have the students walk around and survey each other to find out which activities other students liked best. They'll fill in the tally chart as they survey their classmates. Finally, students will total the tally marks to and create a bar graph to show the data.

Name: _____   **Date:** _____

	Prediction	Measurement	Compare
Height — How Tall?	_____ Centimeters _____ Inches	_____ Centimeters _____ Inches	_____ My prediction was _____ Taller/Shorter than the actual height
Weight — How Heavy?	_____ Pounds	_____ Pounds	_____ My prediction was _____ Heavier/Lighter than the actual weight
Circumference — How Round?	_____ Centimeters _____ Inches	_____ Centimeters _____ Inches	_____ My prediction was _____ Greater/Less than than the actual circumference
How many seeds?	_____ Seeds	_____ Seeds	_____ My prediction was _____ Greater/ Less than the actual number of seeds

Name: _____   **Date:** _____

Tally Chart:

Our Favorite Apple Orchard Field Trip Activities	

Bar Graph:

Our Favorite Apple Orchard Field Trip Activities					

* Don't forget to label both sides of the bar graph!