

Kindergarten - 2nd Grade

[CCSS.MATH.CONTENT.K.CC.B.4](#)

Understand the relationship between numbers and quantities; connect counting to cardinality.

Alignment Justification(s): The curator will discuss with students how fires use to be put out with buckets. Students will learn the relationship between numbers and quantities when passing down the buckets and counting how many buckets equal to a certain amount of water.

[CCSS.MATH.CONTENT.K.OA.A.1](#)

Represent addition and subtraction with objects, fingers, mental images, drawings¹, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

Alignment Justification(s): While visiting the Aurora Fire Regional Museum, students will get the chance to add and subtract when the curator shows them to the upstairs room. The museum offers an activity where students can create their own museum exhibit and students can add and take away items from their creation. They can also categorize them into different categories.

[CCSS.MATH.CONTENT.2.MD.A.1](#)

Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

Alignment Justification(s): Students can measure different objects that were used in the fire station such as the helmets, buckets, fire trucks, the fireman pole and masks.



Hours of Operation:

Thursday, Friday, & Saturday
1:00PM - 4:00PM (Walk-Ins)

“All groups are requested to schedule visits by appointment. Other hours, guided tours, and educational programs are available for groups of ten or more.”

Admission:

Suggested Donations
\$5.00 – Adults
\$3.00 – Children

“Your generous support helps us continue our mission and educational programs. Discount rates are available for groups of ten or more. Contributions of any amount are gratefully accepted.”

Map, Parking, & Directions

53 N. Broadway
Aurora, Illinois
(Corner of New York & Broadway)

*Parking is located behind the building off of LaSalle Street. *

Contact Information

Phone Number:
(630) 256-4140

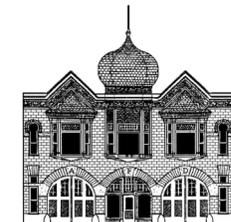
Website:
<http://www.auroraregionalfiremuseum.org/>

Email:
ARFMinfo@aol.com

Common Core Standards Mathematics



*Includes standard alignment
and justifications for the
Aurora Regional Fire Museum*



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3rd – 5th Grade

CCSS.MATH.CONTENT.3.MD.B.3

Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.

Alignment Justification(s): While visiting the Aurora Fire Regional Museum, students will learn about the different areas where the fire stations were located in the past, as well as currently. Students can create a picture graph or bar graph to represent the detailed data from each fire station. For example, how many firefighters were in the fire station?, How many horses per station? How many more firefighters does Aurora have now?

CCSS.MATH.CONTENT.4.MD.A.1

Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.

Alignment Justification(s): Students will be learning about how the fire trucks changed from one era to another. They can measure each fire truck and convert those measures from one unit to another and record their measurements in a table.

CCSS.MATH.CONTENT.5.G.A.2

Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

Alignment Justification(s): Students will learn about the locations of past fire stations and how each fire station was assigned certain neighborhoods. They will also discuss the locations of Aurora fire stations today. Students can create the city of Aurora on a plane and graph the points where the Aurora fire stations use to be located, as well as presently located; and interpret the different coordinate values of each plane and analyze the differences.

6th – 8th Grade

CCSS.MATH.CONTENT.6.RP.A.1

Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.

Alignment Justification(s): Upon visiting the Aurora Fire Regional Museum, students will be able to learn about the different ratios that are needed between fire and water. For example, how many gallons of water are needed to put out a small fire? What is the ratio of water to fire and what does it depend on?

CCSS.MATH.CONTENT.7.SP.A.1

Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.

Alignment Justification(s): While speaking with the curator, David, students can learn about how the population in Aurora has either decreased or grown and how that affects the need of fire stations. Students can look at the Aurora statistics and make inferences about what changes can be seen for the future and how this will affect the fire stations and firefighters.

CCSS.MATH.CONTENT.7.SP.B.3

Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability.

Alignment Justification(s): While visiting the museum, students will hear about the fire stations in the past and analyze the map that shows the red dots that represent where each fire station was and what perimeter they covered. Students can re-create that map and update the current population in the city of Aurora and compare it to the population from the past. When they have analyzed the differences, they can assess if the two populations overlap and how they overlap.

What Educational Programs does the Aurora Regional Fire Museum offer?

Museum Tours

Getting There, Getting Water, Getting Rescued: An Interactive Tour of our Exhibits

"From simple buckets, to modern fire apparatus your group will explore the evolution of the tools and technology used to fight fires and save lives. Visitors will participate in a "hands-on" bucket brigade, seeing the horse-stalls and our "real" fire horses, and watching a demonstration of a fire alarm system as a bell rings and a ticker tape notifies the station of an alarm. All this is in addition to seeing five pieces of fire apparatus ranging in age from the 1850s though the 1950s."

Architecture

Function, Form and the old Firehouse: An Architectural Presentation and Tour of the old Central Fire Station

"What is architecture? What are some of the factors that influence the design of a building? These are some of the topics to be covered during this program that examines the roles of form and function in fire station architecture. Following a thirty-minute discussion and multi-media presentation in the museum's second-floor Hay Loft Theater, your group will be treated to a quick peek in one of the fire station's bunk rooms, see the fire pole, the former horse stalls, and the building's impressive fire hose drying tower."

Museum & Community History

Museums and Community History: Presentation and Research Activity

"What do museums do? Why is history important? Following a 30-minute discussion and multi-media presentation in the museum's Hay Loft Theater, your group will be treated to a peek "behind-the-scenes" into the museum's collection, and discover what information can be gleaned from studying objects from the past."

Great Chicago Fire

The Great Chicago Fire of 1871: A Presentation and Tour

"Did the cow do it? What was so "great" about the Chicago Fire? Your group will gather in the museum's second-floor Hay Loft Theater for a lively thirty-minute discussion/multi-media presentation on the history of the Great Chicago Fire. Following the program you will have an opportunity to see artifacts that survived the Great Chicago Fire."