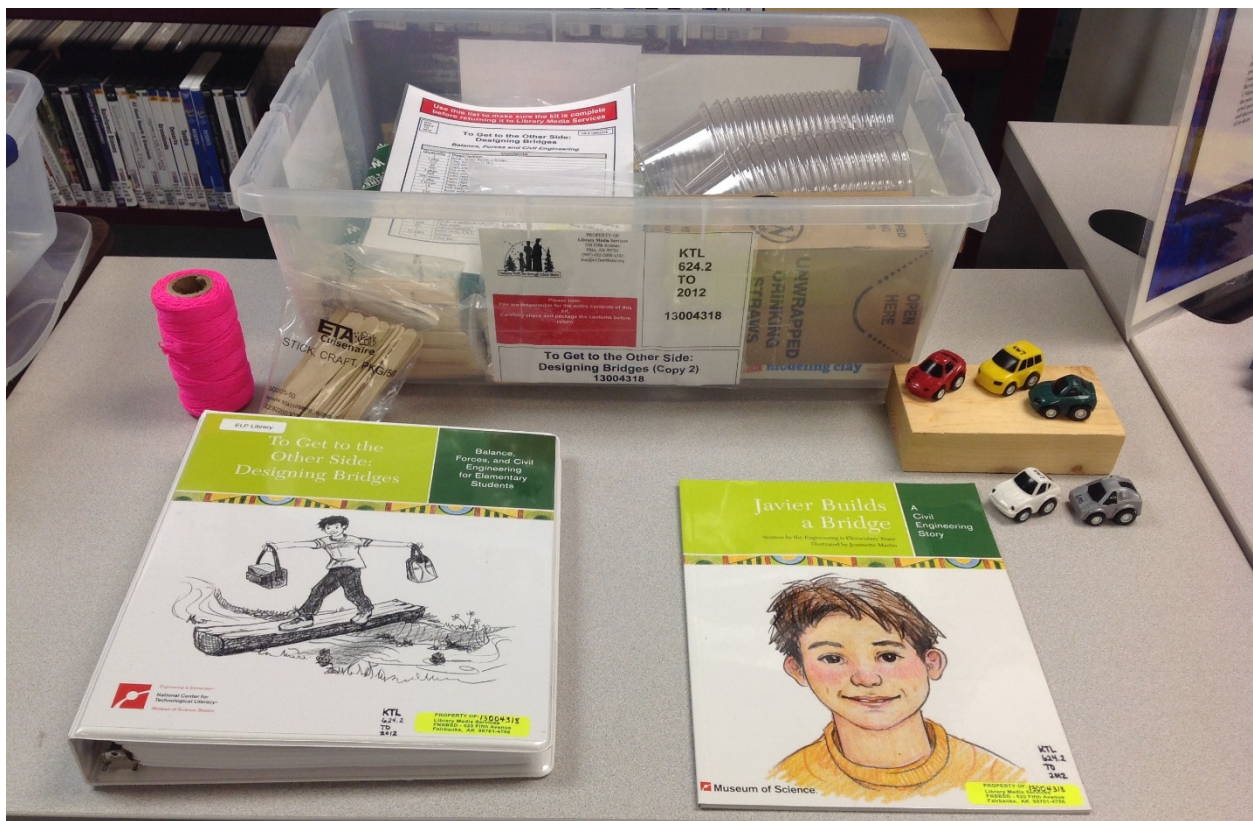


Kit Exploration Night at LMS Inventions and Engineering October 3, 2017

To Get to the Other Side - Designing Bridges
Audience: K-1



This kit contains all the materials needed to complete the activities described in the teacher's manual. Recommended science units for tie-in: Foss: Balance and Motion.

Makerspace Center - Ramps and Textures

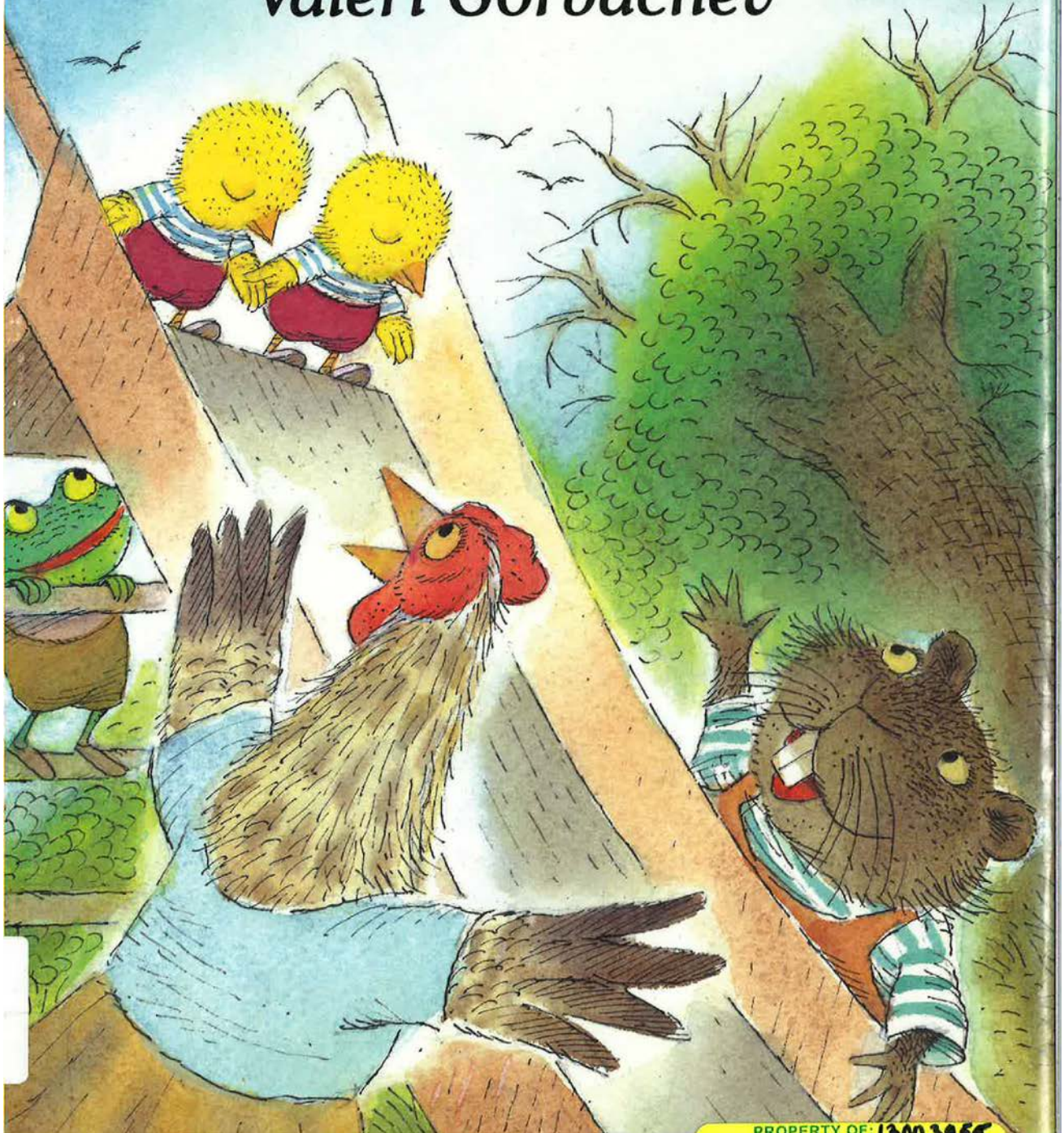
Audience: K-3



This kit includes items needed to set up a makerspace center for young students to experiment with rolling different items down ramps covered with different materials: includes wooden blocks, ramps and balls, plastic balls, marbles, cylinders, toy cars, burlap, felt, and more.

Chicken Chickens

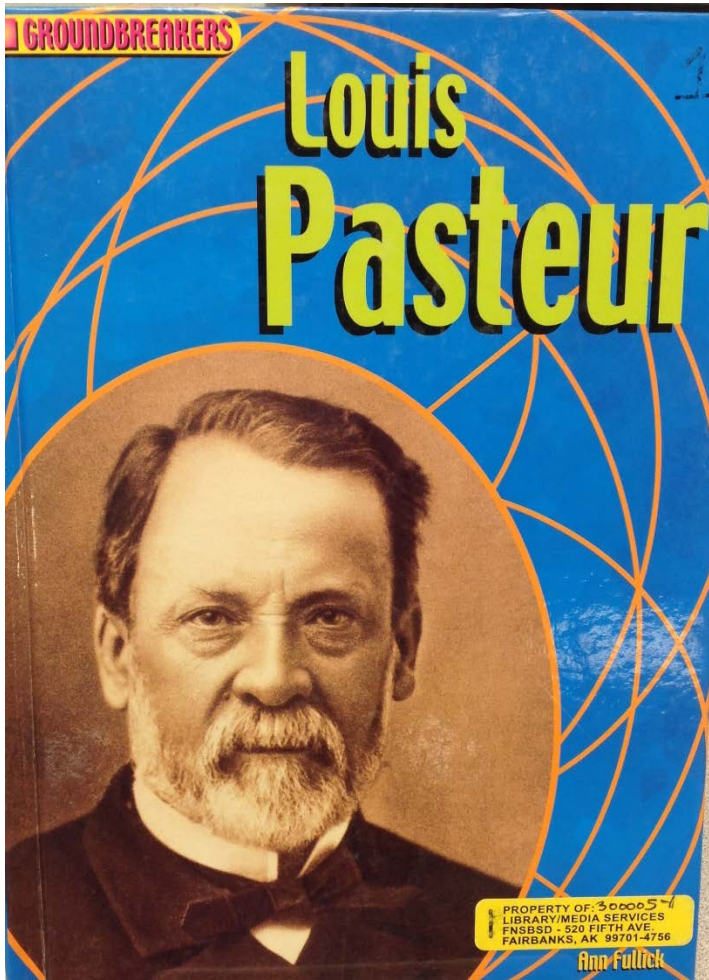
Valeri Gorbachev



Makerspace Center – Ramps and Textures includes the book Chicken Chickens by Valeri Gorbachev.

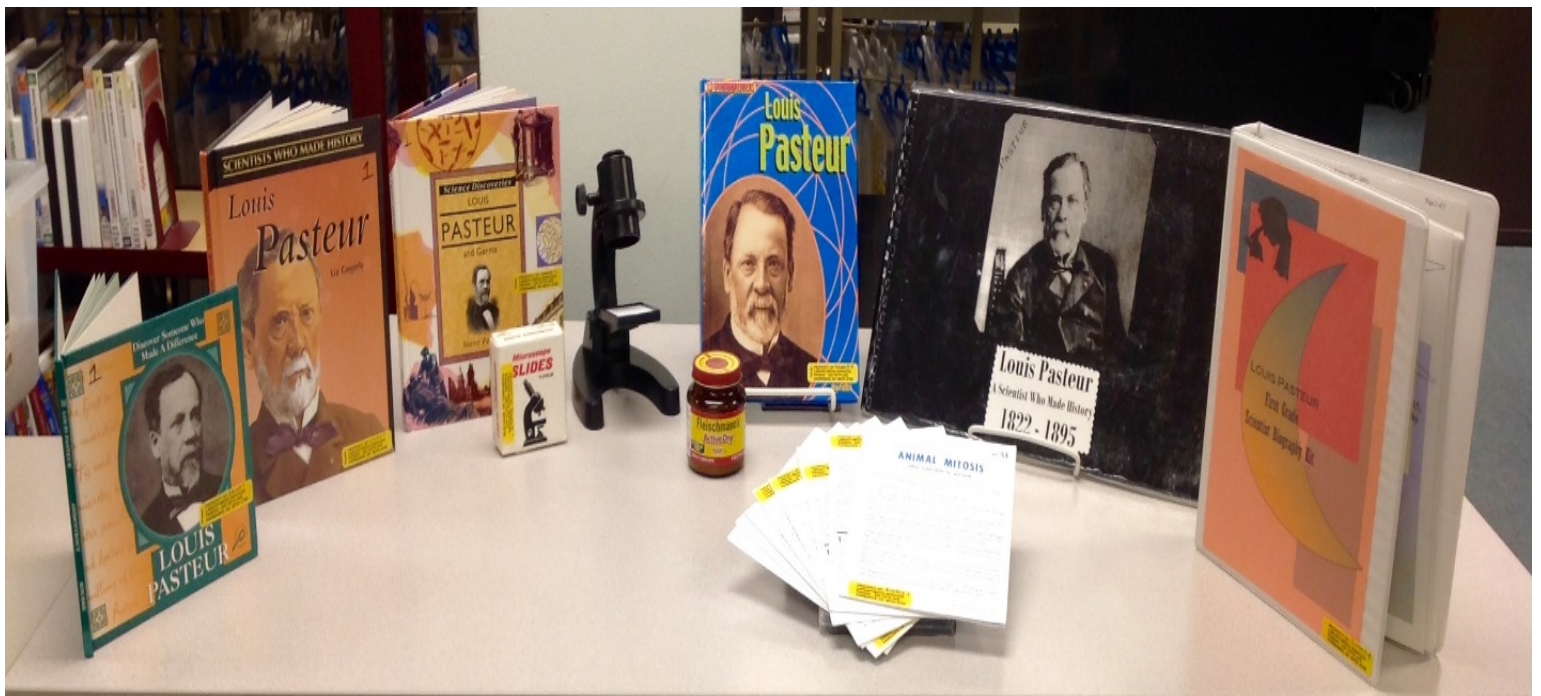
Scientist Biography Kit – Louis Pasteur

Audience: First grade and up



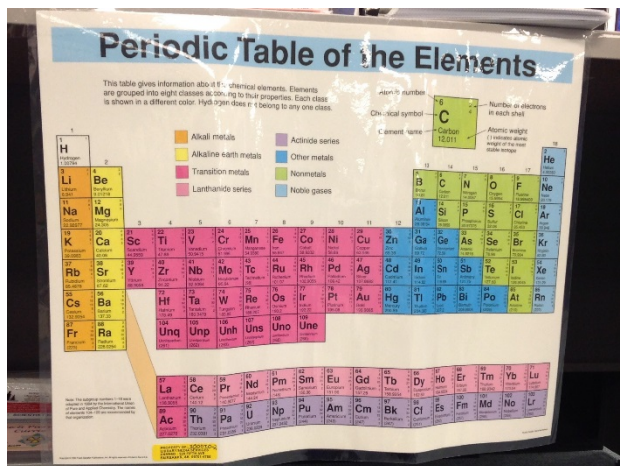
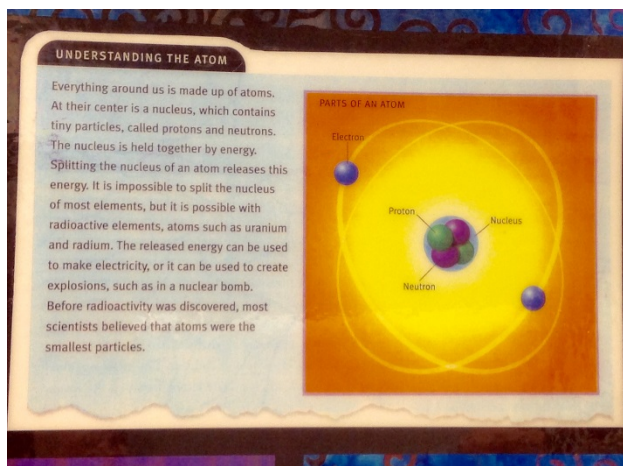
Known for his work in the field of vaccination, pasteurization, and microbial fermentation, Louis Pasteur is known as the “Father of Microbiology”.

This kit requires the use of fresh yeast for activities presented. Please be aware teachers must provide the fresh yeast for best results.

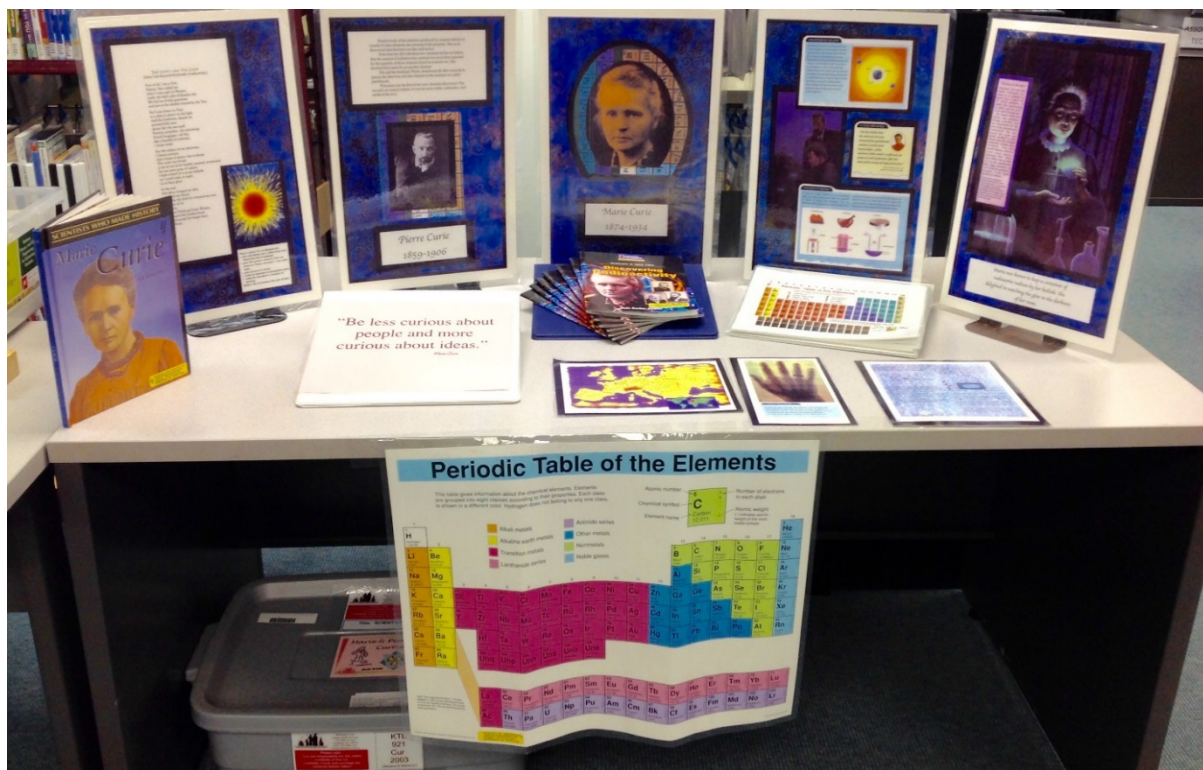


Scientist Biography Kit: Marie & Pierre Curie

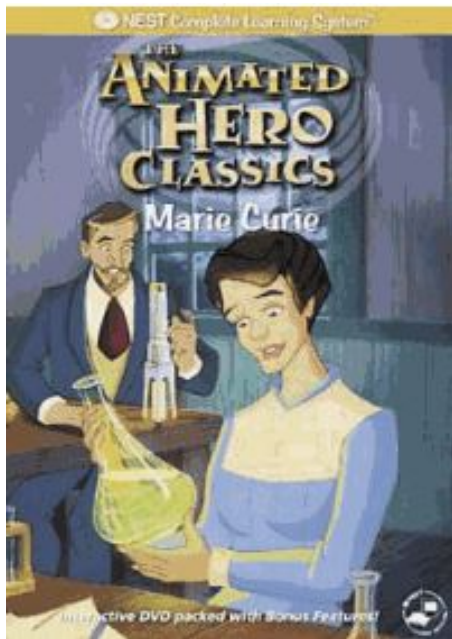
Audience: Sixth grade and up



Learn about the important discoveries of Marie and Pierre Curie. Marie Curie is the first woman to win the Nobel Prize. She and Pierre are noted for their discoveries in radioactivity, including the chemical elements radium and polonium. The Curies received the Nobel Prize in Physics for their work in 1903. Marie Curie later received another Nobel Prize in Chemistry in 1911. This biography kit contains activities and resources, including books, to support the study of the grade level scientists, Marie & Pierre Curie, listed in the FNSBSD science curriculum.



The Animated Hero Classics – Marie Curie



The animated story of Marie Curie, the Polish-born scientist. Her shared research with her husband Pierre gave the world the theory of radioactivity and the discovery of and the isolation of radium. She was the first person to receive two Nobel Prizes. 30 minute DVD.

DVDs – Inventions and Discoveries

DVDs featuring major inventors throughout history, including light-bulb inventor Thomas Edison, telephone inventor Alexander Graham Bell, electric power physicist Nikola Tesla, the Wright Brothers, and more.

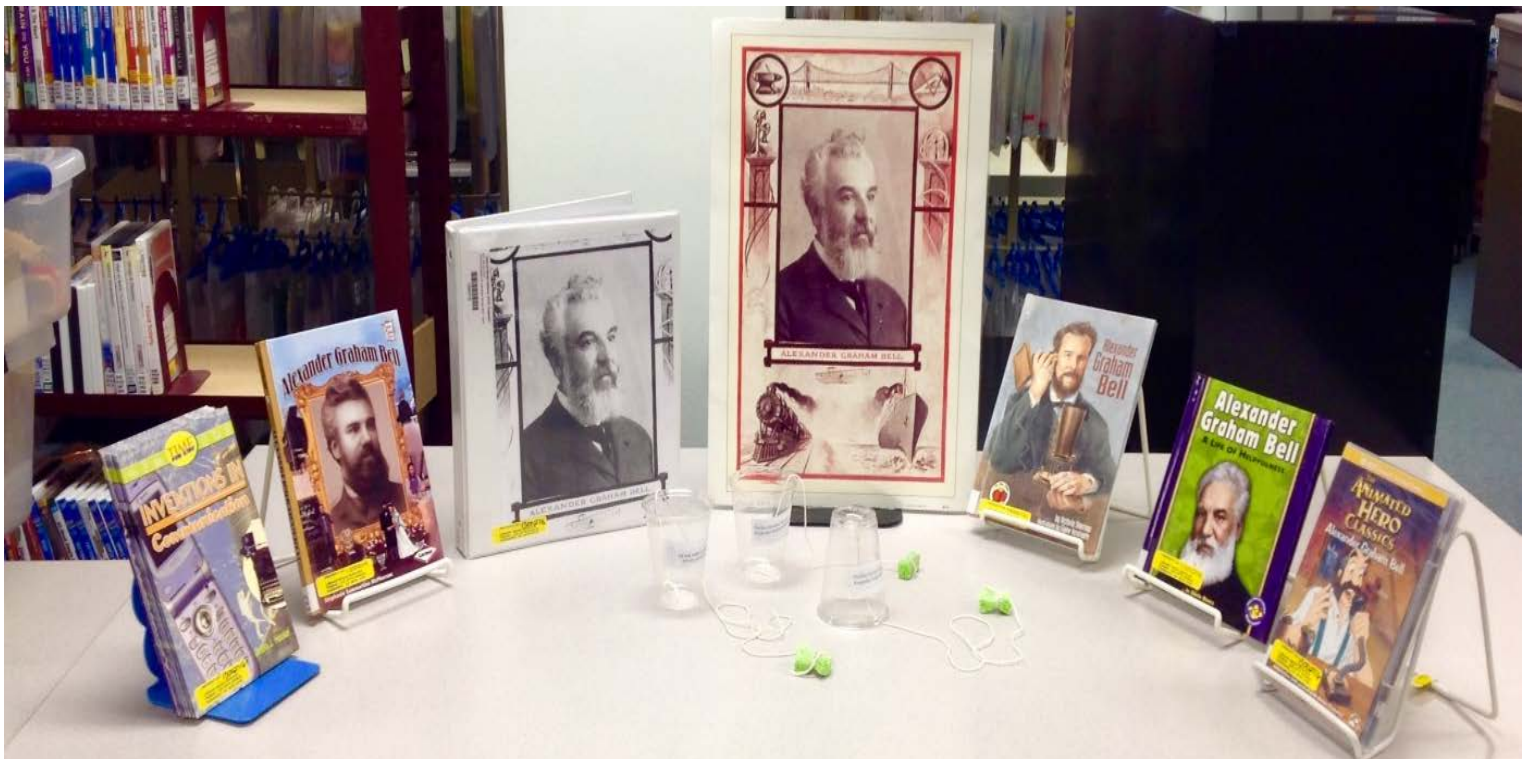


Scientist Biography Kit: Alexander Graham Bell

Audience: Second grade and up



This kit contains a Teacher Resource binder, several different Alexander Graham Bell biographies for children, a DVD: The Animated Story of Alexander Graham Bell Video, poster, and activities with supplies. Also included: a photo-illustrated timeline of Bell telephone designs since 1876.



The Bell System Telephone Story

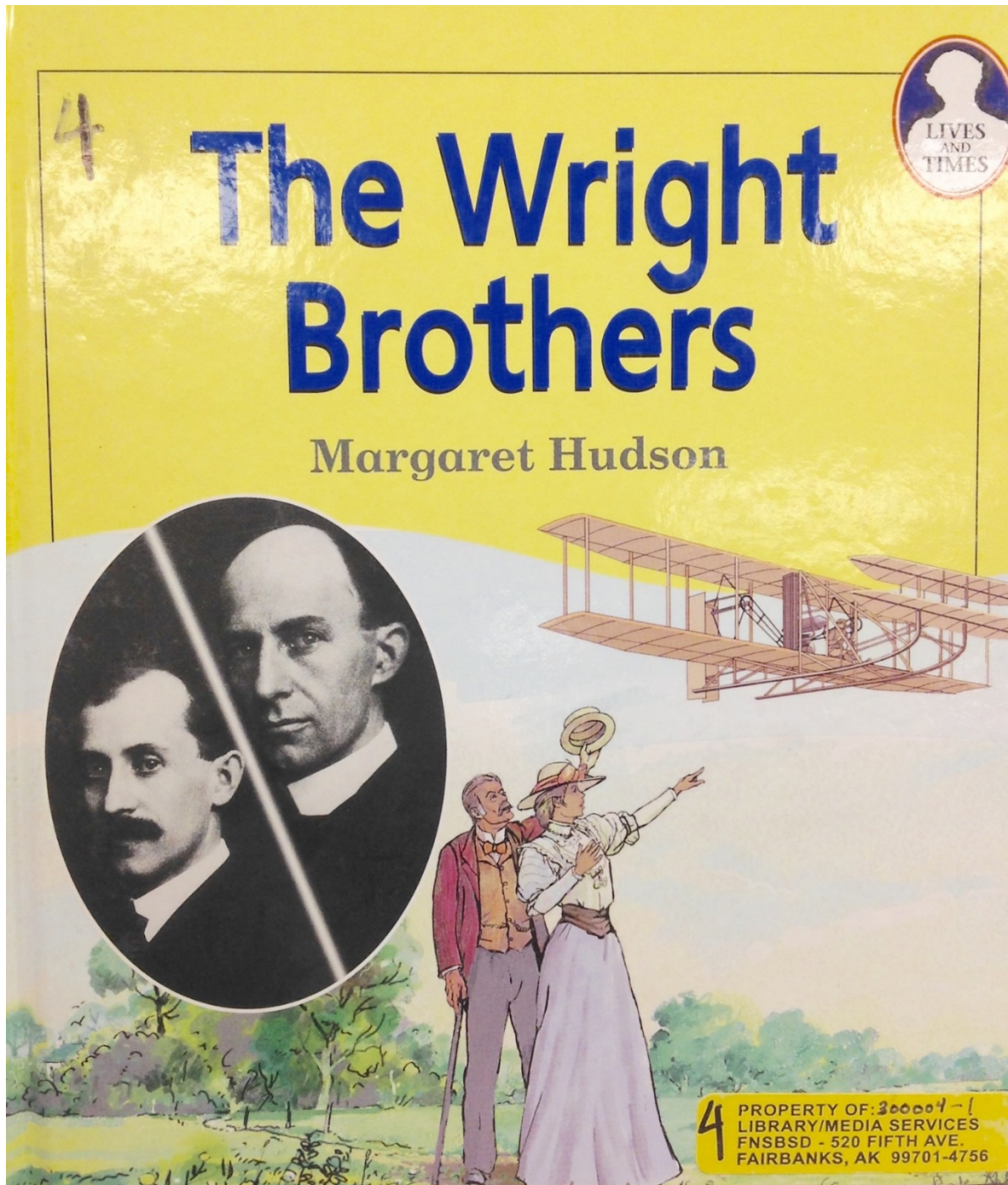
As America celebrates its 200th birthday, the telephone is marking its 100th year. The story of the telephone is the story of change, of the continued search for new methods and materials to transmit the human voice. This progress has given America the finest telecommunications service in the world. It has been achieved largely by Bell System planning and the coordination of its parts—Bell Laboratories, its research and development unit; Western Electric, its manufacturing and supply unit; and the operation and service of the communications equipment by your local Bell Telephone Company. Here is what the telephone has looked like over the years. . . .

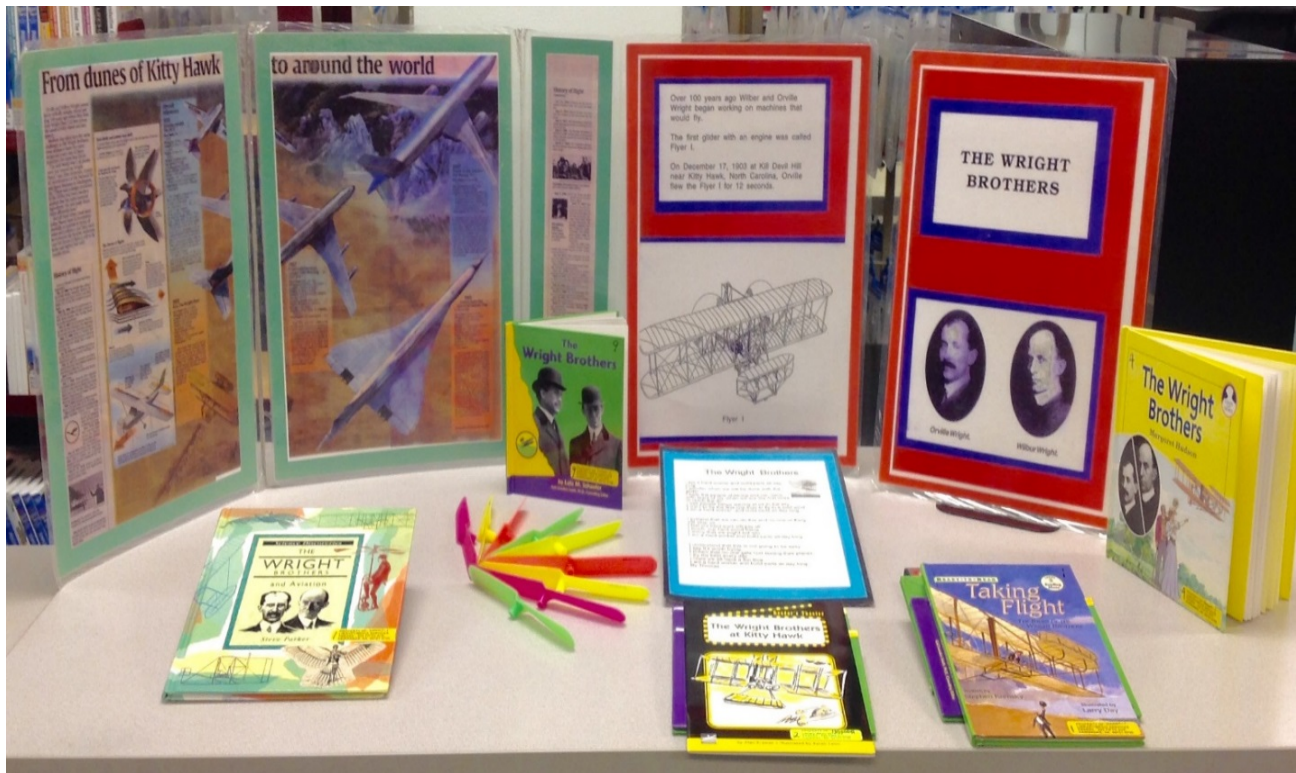
 <p>1876 LIQUID TELEPHONE</p> <p>The Watson, here seen in 1877, was the first of March 10. These first liquid models, adapted to Alexander Graham Bell's earlier experiments, could be used for many years and one of the first to be used in a telephone exchange.</p>	 <p>1876 BELL'S CENTENNIAL MODEL</p> <p>Improvements rapidly had demonstrated the invention of the Centennial Exposition in Philadelphia. A typical model was that of Graham Bell's first of March 10. "My first telephone" was the name of Bell's invention. "The most wonderful thing in America."</p>	 <p>1877 FIRST COMMERCIAL TELEPHONE</p> <p>The first commercial telephone was built in 1877. It was the first telephone to be used in a telephone exchange. It was built by Alexander Graham Bell and his partner, Thomas Watson.</p>	 <p>1878 BUTTER STAMP</p> <p>Bell's first use of a combined receiver-transmitter that could be held in the hand, instead of a separate receiver and transmitter, was the butter stamp. Designed in 1877, it was in service when the world's first automatic telephone in New Haven in 1878. The invention inspired the operator.</p>	 <p>1878 WALL SET</p> <p>Including the same instrument that made it possible to connect for some periods in a second work, the transmitter-receiver was added. Either could be used for talking or listening. Turning the crank provided power to signal the operator.</p>	 <p>1880 BLAW</p> <p>1880 Blaw model was the first to be used in a telephone exchange. It was built by Alexander Graham Bell and his partner, Thomas Watson. It was the first telephone to be used in a telephone exchange.</p>
 <p>1882 MAGNETO WALL SET</p> <p>This handsome, self-contained instrument, the first telephone built for the Bell System by Western Electric, used Bell's hand receiver and Blaw's transmitter. It was the standard for many years and one of the first to be used in a telephone exchange.</p>	 <p>1886 LONG-DISTANCE TRANSMITTER</p> <p>In the year that the Statue of Liberty was dedicated in New York Harbor, the search for improved long distance transmitters took a major step forward with this model, which provided a significant improvement in clarity. This instrument shown was actually used by Bell.</p>	 <p>1892 DESK SET</p> <p>Main contact and decision are the features of this long distance transmitter. The system transmitter is less costly, the receiver, called a "mouth case," mouth-piece, and the clock case which the extra bank. 1892 also saw New York-to-Chicago service begin.</p>	 <p>1897 DESK SET</p> <p>America was on the verge of its great transformation from a rural to an urban nation, and the telephone was beginning to take the shape that would be familiar during that change. This early desk set, made of cast brass, was a refinement of previous models.</p>	 <p>1900 COMMON BATTERY</p> <p>Improving telephone service is a constant goal. The earliest sets were self-contained, their power and battery, which occasionally leaked on the wall, then the city battery. This made a major advance, standardizing power from the telephone exchange, hence its name.</p>	 <p>1907 MAGNETO WALL SET</p> <p>Here is an improved version of the set with a built-in generator to provide current for signaling the operator. Circuit safety devices were added to protect against fire. The set, through the 1920s, had evolved several times, an improvement of 1907.</p>
 <p>1913 WALL SET</p> <p>The wall telephone was becoming more common. The Bell System's "magneto" telephone systems were in general service. They were adapted to Western Electric as the standard telephone set for use in a telephone exchange.</p>	 <p>1919 DIAL TELEPHONE</p> <p>Cost-to-rental phone service that began in 1915, and was later known as "payphone" service, was in general service in 1919. The first payphone was installed in 1919. It was the first telephone to be used in a telephone exchange.</p>	 <p>1928 DESK SET</p> <p>The Rotary Telephone gave America a new look in telephones when the standard coin-operated set, used for decades since 1916, was replaced by this model. The "rotary" set, which was commonly used for general service, a standard version of Western sets, it was nicknamed "the French phone."</p>	 <p>A major innovation that offered added convenience to telephone subscribers came in the form of the new, portable 300 type desk set. The "300" series telephone set was designed to be used in a telephone exchange. It was the first telephone to be used in a telephone exchange.</p>	 <p>The "300" also offered added convenience to business users. It incorporated within the set one "hook" feature and the others for calling, signaling or access to other extensions. "300" series sets were widely used in the early 1940s.</p>	 <p>After talking up with the promise of being a workhorse for the war, the Bell System brought out this new model with improved talking and signaling capabilities. The "300" series telephone set was widely used in the early 1940s. It is currently being improved.</p>
 <p>1954 300 TYPE COLOR DESK SET</p> <p>The "300" was now used, and the Bell System expanded the "300" line to include color. Making the telephone a decorative household item, although some color telephones were available earlier, they had not gained widespread popularity.</p>	 <p>The telephone returns to the wall in this handsome piece to the "300" line. The wall set is most often used in businesses and homes where space and cost were at a premium. It consists of a hand piece and a base with a coin slot and a coin return.</p>	 <p>Hand-free telephoning arrived with the introduction of the Speakerphone, which also carries a personal call between groups of different locations. Based on the "300" model, introduced in 1954, which has improved sound quality and an improved microphone.</p>	 <p>Helping solve the increasingly complex communication needs of its business customers, the Bell System introduced the set designed to handle several incoming outgoing and inter-office calls simultaneously. It is available in both 10 and 20-line models.</p>	 <p>The look and sound of a smart new look. Compactness, attractive styling and distinguished design make the Princess telephone set a new one in interoffice communication. It is available in both 10 and 20-line models.</p>	 <p>An answer required the 200 million mark in production, the Bell System introduced a new way in interoffice communication with push-button calling. Combined with electronic control circuitry, Touch-Tone service will be used in the case of the telephone exchange.</p>
 <p>1968 TRIMLINE TELEPHONE</p> <p>The Western Electric Trimline Telephone set combines the "300" and "300" lines in one lightweight, attractive unit. Although only the Bell System is licensed to use the "300" line, the "300" line factors make these sets the best communications service.</p>	 <p>Who wanted on the move and a new model of set, called "Picturephone," that made it possible to see the person to whom you're talking was introduced. The "300" line has a feature for individual or group hearing. More good to be used in interoffice communication.</p>	 <p>The Touch-A-Matic set is the first telephone set to feature a built-in speaker. It is a single set, it is available in both 10 and 20-line models. It is a new way in interoffice communication that serves the needs of the business to Bell.</p>	 <p>In addition to Bell's customer-oriented service, the Bell System introduced a series of telephone sets designed to meet the needs of the business. The Design Line set and the "300" line are available in both 10 and 20-line models.</p>	 <p>Being the primary and of a constant effort to improve telephone service, the Bell System introduced a series of telephone sets designed to meet the needs of the business. The Com Key 418 set and the "300" line are available in both 10 and 20-line models.</p>	 <p>To be more service to 1976, the Bell System offers a new way in interoffice communication. The Transaction telephone set, with a built-in speaker, is available in both 10 and 20-line models. It is a new way in interoffice communication.</p>

Scientist Biography Kits: The Wright Brothers

Audience: First grade and up

From bicycle repairmen to airplane engineers...This is the amazing story of Orville and Wilbur Wright, whose trials in aviation contributed to the modern-day airplane. Kit contains activities, books, and materials for exploring aerodynamics in the classroom. LMS library also has Wright Brothers DVDs that will coordinate with this kit.





Animated Hero Classics: The Wright Brothers

If people were meant to fly, they'd be given wings. That's what the world told the brothers Orville and Wilbur Wright. This is the thrilling story of two American bicycle repairmen who ignored all those who said it couldn't be done and risked everything, including their very lives, to become the first to manage powered flight.

Inventors of the World: The Wright Brothers

By exploring archival films, photographs and actual drawings and materials, students will learn about the Wright brothers, especially through reenactments. They had to test their ideas about flight before finally building their first powered airplane.



Scientist Biography Kit – Leonardo da Vinci

Audience: Sixth grade and up



Leonardo da Vinci is known for his incredible skill and interest in many subjects, including math, science, architecture, music, botany, astronomy, geology, anatomy, history, literature, inventions, engineering, and the arts.

This science biography kit contains great activities for kids, and resources, including books, to support the study of the grade level scientist, Leonardo da Vinci, listed in the FNSBSD science curriculum.

