Inventions Research Project

Read about the Inventors and Inventions on the following pages.

You are to invent a machine

1. Decide on a problem that would be easier with an invention. For Example : Tying shoes, cleaning the car, washing windows etc.,

2. When you have decided on the problem, draw a picture of your invention.
Will it have a motor?
What will it be made of?
How will it work?

3. Label the parts of your machine.

4. Make a model of your Invention.

5. What materials will you use? Sticks? Tape? Wool? Etc.,

6. Write an Advertisement to sell your Invention. Tell people all about your Machine and why they need to buy it!

Have fun!

ADHESIVE TAPE
Richard G. Drew (1886-1956) invented masking tape and clear adhesive tape (also called cellophane tape or Scotch tape). Drew was an engineer for the 3M (Minnesota Mining) company.
Drew's first tape invention was a masking tape made for painters in 1923 (this tape was designed to help painters paint a straight border between two colors). This early masking tape was a wide paper tape with adhesive on only the edges of the tape - not in the middle. Drew made an improved tape called Scotch (TM) Brand Cellulose Tape in 1930. This tape was a clear, all-purpose adhesive tape that was soon adopted worldwide. The first tape dispenser with a built-in cutting edge was invented in 1932 by John A. Borden, another 3M employee.

AEROSOL SPRAY CAN
The forerunner of the aerosol can was invented by Erik Rotheim of Norway. On November 23, 1927, Rotheim patented a can with a valve and propellant systems - it could hold and dispense liquids.
The first aerosol can (a can than contains a propellant [a liquefied gas like flurocarbon] and has a spray nozzle) was invented in 1944 by Lyle David Goodloe and W.N. Sullivan. They were working for the U.S. Department of Agriculture and were trying to find a way to spray and kill malaria carrying mosquitos during World War II for the soldiers overseas. The "clog-free" spray valve was invented by Robert H. Abplanal in 1953.
The first spray paint was invented by Edward H. Seymour in 1949. Seymour's wife Bonnie had given him the idea of an aerosol applicator for paint. The first spray paint he developed was aluminum colored. Seymour formed the company, Seymour of Sycamore, Inc. of Chicago, USA, which is still in operation.

AIRPLANE
The first working airplane was invented by, designed, made, and flown by the Wright brothers, Wilbur Wright (1867-1912) and Orville Wright (1871-1948). Their "Wright Flyer" was a fabric-covered biplane with a wooden frame. The power to the two propellers was supplied by a 12-horsepower water-cooled engine. On December 17, 1903, the "Flyer" flew for 12 seconds and for a distance of 120 feet (37 m). The flight took place at Kitty Hawk, North Carolina, USA.

BAND-AID®
Bandages for wounds had been around since ancient times, but an easy-to-use dressing with an adhesive was invented by Earle Dickson (a cotton buyer at the Johnson & Johnson company). Dickson perfected the BAND-AID® in 1920, making a small, sterile adhesive bandage for home use. Dickson invented the BAND-AID® for his wife, who had many kitchen accidents and needed an easy-to-use wound dressing. Dickson was rewarded by the Johnson & Johnson company by being made a vice-president of the company.

BAR CODE
Bar codes (also called Universal Product Codes or UPC's) are small, coded labels that contain information about the item they are attached to; the information is contained in a numerical code, usually containing 12 digits. UPC's are easily scanned by laser beams. UPC's are used on many things, including most items for sale in stores, library books, inventory items, many packages and pieces of luggage being shipped, railroad cars, etc. The UPC may contain coded information about the item, its manufacturer, place of origin, destination, the owner, or other data. The first "bullseye code" was invented by Norman Joseph Woodland and Bernard Silver, from work which they began in 1948. On October 20, 1949, they patented their bullseye code (a series of concentric circles that were scannable from all directions, using regular light). Woodland and Silver patented a new UPC in October 1952; the UPC was also improved and adapted by David J. Collins in the late 1950's (to track railroad cars). UPC's were first used in grocery stores in the early 1970's.

BASKETBALL
The game of basketball was invented by James Naismith (1861-1939). Naismith was a Canadian physical education instructor who invented the game in 1891 so that his students could participate in sports during the winter. In his original game, which he developed while at the Springfield, Massachusetts YMCA (Young Men's Christian Association), Naismith used a soccer ball which were thrown into peach baskets (with their bottoms intact). The first public basketball game was in Springfield, MA, USA, on March 11, 1892. Basketball was first played at the Olympics in Berlin Germany in 1936 (America won the gold medal, and Naismith was there).

BELL, ALEXANDER GRAHAM
Alexander Graham Bell (March 3, 1847, Edinburgh, Scotland - August 2, 1922, Baddek, Nova Scotia) invented the telephone (with Thomas Watson) in 1876. Bell also improved Thomas Edison's phonograph. Bell invented the multiple telegraph (1875), the hydroairplane, the photo-sensitive selenium cell (the photophone, a wireless phone, developed with Sumner Tainter), and new techniques for teaching the deaf to speak. In 1882, Bell and his father-in-law, Gardiner Hubbard, bought and re-organized the journal "Science." Bell, Hubbard and others founded the National Geographic Society in 1888; Bell was the President of the National Geographic Society from 1898 to 1903.