# Inventors & Inventions

## Thomas Alva Edison (1847-1931)

Edison was born in Milan, Ohio. Thomas had very little schooling because his mother took him out of school because he asked too many questions. One day, he saved a young boy from a rail wagon. Soon Edison had a job as a telegraph operator on a Canadian railway and he invented a better way to do it.

By the sale of telegraphic appliances Edison earned $40,000 and with his money he established his own laboratory in 1876.In 1868 he invented the new telegraph system, in 1874 the typewriter, in 1877 the phonograph and in 1879 the electric light bulb.
In 1887 Edison moved his laboratory from Menlo Park, New Jersey to West Orange, New Jersey where he constructed a large laboratory for experimentation and research. In 1882 he devoloped and installled the world's first large central eletric-power station, located in New York. Edison died in West Orange in October in 1931.

One of Edison's phonographs (dated 1910) is on display at our stand, together with one of the very earliest recordings. If you are lucky, you may get the chance to listen to it!

# Alexander Graham Bell (1847 – 1922)

Alexander Graham Bell was born on March 3rd 1847 in Edinburgh, Scotland. Alexander Graham Bell is best known for his invention of the telephone.

Many people tried to invent a way of sending human speech by wire, but Alexander Graham Bell was the first to succeed. He was very smart – he knew lots about electricity, but he also new lots about acoustics. Acoustics is the study of sound.

The first telephone was made of a wooden stand, a funnel, a cup of acid and some copper wire. Alexandar Graham Bell invented the telephone with the help of his assistant Thomas Watson. The first telephone conversation took place on March 10th 1876 in Boston Massachusetts. The first telephone call that took place on this day was very simple. Bell was in one room and Watson was in another and Bell said to Watson "Mr. Watson, come here, I want you!"

The Telephone

The word 'telephone' comes from the Greek words 'tele' which means from afar and 'phone' which means voice.

# Samuel Morse

In 1837, Samuel Morse invented Morse Code. This a communication system made up of dots and dashes. A dot was a short tap and a dash was a long dash. Operators would tap out a message using this communication.

# John Shore's Tuning Fork

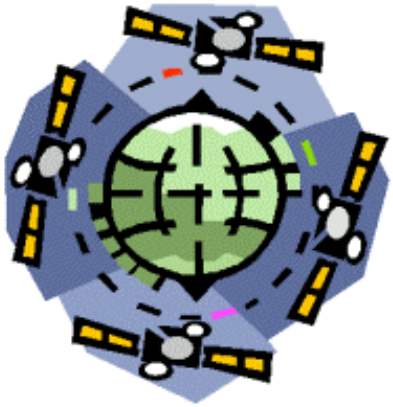
John Shore invented the tuning fork. It is made of steel. He invented the tuning fork in 1711. He played the trumpet. He jokingly called it a pitchfork! He played the trumpet.

A tuning fork makes an extremely pure sound. The two prongs vibrate, move in and out, creating sound that makes a curving waveform.

# Radio, Television and Satellites

The first radio was created by Guglielmo Marconi in 1895. He was the first to send telegraph signals through the air without using wires. Radio waves are a form of energy that travel through the air.

John Logie Baird created the first television using lense set in revolving disc to scan a picture. It was later developed by Americans, Vladimir Zworykin and Philo Farnsworth.



Microwave radio signals must travel in straight lines in. In olden days they had to be sent from relay station to relay station. Then in 1945 a science fiction writer called Arthur C. Clarke came up with a solution to the problem. He suggested putting the relay equipment on satellites which could go around the earth every 24 hours staying fixed in one point in the sky at 36,000km above the ground. In 1964, his dream came true as the first geostationary satellite called Syncom 3 was launched successfully into orbit. Nowadays signals can go from one place to anywhere else in the world almost instantly.

In space, there are no solids, gases or liquids (mediums) to travel through meaning sound can't exist. Spacemen use radios to communicate with each other in space. So literally "In space no one can hear you scream".