

The early years of radio / Teachers notes

Focus

The activity is designed to introduce students to the idea that the radio was not invented by one person, but the discoveries and machines developed by a number of scientists and engineers from many countries led to the development of the radio.

Objectives

Students will:

- learn about the developments leading to creation of the radio.

Outcomes

All students will:

- be able to name the scientists and engineers involved in the development of the radio
- write questions about the passage for other groups to answer.

Most students will also:

- be able to list the breakthroughs made in the development of the radio
- answer the questions written by another group.

Some students will also:

- complete the table summarising the breakthroughs made and the scientists/engineers responsible.

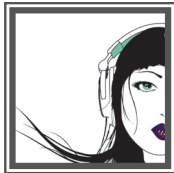
Equipment

- Worksheet: *The early years of radio* (1 copy per student).

Running the activity

Ask the students who they think invented the radio. Tell them that they are going to learn that it wasn't invented by one person and that many scientists and engineers from many countries were involved in its development. Give the students a copy of the 'The early years of radio' worksheet. Introduce the activities they are going to be involved in and emphasise the structure particularly the writing of the questions, the exchanging of questions, marking and feeding back.

Debrief the activity by asking groups to present their ideas, emphasise the key points and correct any misconceptions.



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Date	Scientist or engineer involved	Discovery or breakthrough
1893	Tesla	gave a public demonstration of "wireless" radio communication.
1 Aug 1894	Lodge	demonstrated the reception of Morse code signalling via radio waves using a "coherer".
November 1894	Bose	demonstrated publicly the use of radio waves in Calcutta. Bose ignited gunpowder and rang a bell at a distance using electromagnetic waves, proving that communication signals can be sent without using wires. He was thus the first to send and receive radio waves over a significant distance.
7 May 1895	Popov	Demonstration of the transmission and reception of radio waves used for communication.
1895	Marconi	received a telegraph message without wires a short distance (below a mile), but he did not send his voice over the airwaves.
1901	Marconi	conducted a reported transatlantic radio communications experiment.
1907	Marconi	established the first commercial transatlantic radio service.