# Program Information

## Lesson:

### *A History of Telecommunications*

## Training:

## Premises Cabling

## Time frame:

### 30 minutes

# Instruction Section

## Learning Objectives:

# Describe how communications have developed over time.

# Recognize how key milestones in telecommunication history have impacted society.

## Assessment Tools/Methods:

# Participants should be assessed based on participation in group discussions and activities.

## Learner Prior Knowledge:

* Prior to class, participants will need to read:

# Reference Guide: History of Cabling for Communications (<https://www.thefoa.org/tech/ref/premises/overview.html>)

# A Short History of Modern Telecommunications (<https://www.thefoa.org/tech/ref/appln/TelecomHistory.html>)

# Prior to class, participants will need to watch:

### [Premises Cabling Lecture 1: What Is Premises Cabling?](http://www.youtube.com/watch?v=1TrA1m7R_ns&list=PL3F0669372E06AE8B&index=1&feature=plpp_video)

## Instructional Activities:

1. Welcome participants and introduce the topic of telecommunications history.
2. Prompt participants to consider the importance of communication in their personal and professional lives.

# Activity 1: Group Discussion

1. Pass out the Graphic Organizer: Timeline of Key Events in Telecommunications History.
2. Facilitate a brief discussion on the significance of each milestone and its impact on society and global connectivity.
3. Encourage participants to share personal anecdotes or examples of how these advancements have influenced their lives or industries.

# Activity 2: Timeline Research

1. Have participants select one event or technological advancement to briefly research online using the events on the timeline.
2. Each participant will share a brief overview of their chosen topic with the group.

# Activity 3: Closing Thoughts

1. Conclude the session by discussing current trends and future developments in telecommunications, such as 5G technology, use of the Internet, and advancements in satellite communication.
2. Encourage participants to reflect on how these innovations may shape the future of communication in their industries or communities.

## Resources:

# Graphic Organizer: Timeline of Key Events in Telecommunications History

## Differentiation:

# For participants who are ready for a challenge, have them read additional resources or readings for further exploration of topics in the field of telecommunication history.

*This lesson is supplemental to the Fiber Optics lesson within FOA's Fiber U curriculum and not part of the FOA required curriculum to obtain the Certified Premises Cabling Technician certification. If interested in becoming an approved school and/or obtaining a certification, please contact FOA at*[*thefoa.org/contact-foa.html*](https://www.thefoa.org/contact-foa.html)*.*

*Note: AI, specifically ChatGPT 3.5, was used to generate timeline for this contextualized lesson plan.*

## Timeline of Modern Telecommunications

Samuel Morse invents the telegraph, marking the beginning of modern telecommunications.

1837

Alexander Graham Bell patents the telephone, revolutionizing communication by allowing voice transmission over long distances.

1876

Guglielmo Marconi demonstrates the feasibility of radio communication, leading to the development of wireless telegraphy.

1894

Philo Farnsworth demonstrates the first electronic television system.

1927

The transistor is invented at Bell Labs, paving the way for smaller and more efficient communication devices.

1947

The first transatlantic telephone cable, TAT-1, is laid, enabling direct communication between North America and Europe.

1956

The launch of Telstar 1, the first communications satellite, enables live transatlantic television broadcasts and phone calls.

1962

Motorola engineer Martin Cooper makes the first handheld mobile phone call.

1973

IBM introduces the Token Ring network architecture, a precursor to modern Ethernet.

1981

The Internet Protocol Suite (TCP/IP) is standardized, laying the foundation for the modern internet.

1983

The first fiber optic undersea cable, TAT-8, is laid, significantly increasing the capacity for international communications.

1988

The World Wide Web is launched, making the internet accessible to the general public.

1991

The Category 5 (Cat 5) twisted pair cable standard is introduced, supporting faster data transmission speeds and becoming a staple in Ethernet networks.

1991

IEEE 802.11 standardizes wireless networking, leading to the proliferation of Wi-Fi technology.

1997

The Category 6 (Cat 6) twisted pair cable standard is ratified, offering even higher performance for Ethernet networks.

2002

Apple releases the iPhone, popularizing smartphones and mobile internet access.

2007

The IEEE 802.3ba standard for 40 Gigabit Ethernet and 100 Gigabit Ethernet is ratified, enabling faster data transmission over wired networks.

2010

The Category 8 (Cat 8) twisted pair cable standard is introduced, designed to support 25 and 40 Gigabit Ethernet over short distances.

2016

5G technology begins to roll out, promising faster wireless communication and lower latency.

2019