

UNIT 22

CELL PHONES

Objectives: at the end of the lesson, students will be able to:

1. explain the historical development of cell phones, from early models to modern smartphones;
2. identify and describe recent technological advancements in cell phones;
3. create a comparison chart to guide consumers in making informed purchasing decisions.

Lead-in: Students will create a timeline showcasing key milestones in cell phone technology.

Vocabulary Building

Key Terms

Lithium-ion battery – is a battery in cell phones that is small, light, and lasts a long time

***Example:** Lithium-ion batteries have been commercially available for over 2 decades and currently represent a state-of-the-art power source for all modern consumer electronic devices.*

Voicemail – is a feature that lets you listen to or leave an electronic spoken message on a cell phone

***Example:** Voicemail is defined as a modern kind of answering machine that allows you to electronically store voice messages and retrieve them with a PC or system telephone or have them served as an e-mail.*

Ringtone – is a sound or song that a cell phone plays when someone calls it

***Example:** Search free computer Ringtones on Zedge and personalize your phone to suit you.*

Touchscreen – is a display on some cell phones that you tap to access its features and applications

***Example:** A touch screen is an electronic display screen that is also an input device. A user interacts with the computer, tablet, smartphone or touch-controlled appliance by using hand gestures and*

fingertip movements to tap pictures, moving elements or type words on the screen.

4G network – is a wireless network that sends and receives data very quickly

***Example:** 4G network provides up to 100 Mbps speed to users, far higher than a 3G network. 4G enables users to stream high-definition audio and videos without interruption due to its high speed.*

Caller ID – is a feature of some cell phones that tells you the name and number of the person calling you

***Example:** Technically, Caller ID only supplies the phone number of the calling party, but the term has become synonymous with the caller name ID. The name of the calling party is actually provided by a caller name delivery service known as CNAM.*

Bluetooth – is a wireless network that connects your phone with other devices, such as a computer

***Example:** Bluetooth technology allows devices to communicate with each other without cables or wires.*

Activity: Match each term with its definition

A. Ringtone	1. A wireless technology for connecting devices over short distances.
B. Touchscreen	2. A screen that responds to touch for input.
C. Voicemail	3. A type of battery known for its long life and lightweight characteristics.
D. Lithium-ion battery	4. A feature that displays the caller's phone number and sometimes name.
E. Caller ID	5. The sound played when a phone receives a call.
F. 4G network	6. A system for recording and storing voice messages.
G. Bluetooth	7. A high-speed wireless communication standard for mobile networks.

Reading

The History of Cell Phones

The history of cell phones is a fascinating journey through technological innovation, shaping how we communicate today. Here's an overview of key milestones in the evolution of cell phones:

1. Early Beginnings (1973-1980s)

The story of cell phones begins in the early 1970s when Martin Cooper, a Motorola engineer, made the first handheld mobile phone call on April 3, 1973. This early device, known as the Motorola DynaTAC, was large and bulky, resembling a brick more than a modern phone. It was not until 1983 that the DynaTAC 8000X became available to the public, marking the start of the mobile phone era. Early mobile phones were expensive and primarily used by business professionals.

2. The Rise of the Flip Phone (1990s-2000s)

The 1990s saw significant advancements in cell phone technology, including the introduction of digital cellular networks and smaller, more affordable phones. The Motorola StarTAC, released in 1996, was one of the first compact, flip-style phones and quickly became popular due to its portability and innovative design. During this period, phones began to offer features such as SMS text messaging, and the concept of mobile phone plans became more widespread.

3. The Era of Smartphones (2000s-2010s)

The early 2000s ushered in the era of smartphones, fundamentally changing the functionality of cell phones. In 2007, Apple introduced the iPhone, which revolutionized the market with its touch screen interface, integrated internet capabilities, and the App Store. This period also saw the rise of Android phones, offering competition and variety in the smartphone market. The introduction of 3G and later 4G networks further enhanced mobile internet speeds, allowing for better streaming, browsing, and communication.

4. Modern Developments (2010s-Present)

In the 2010s and beyond, cell phone technology continued to advance rapidly. Smartphones now feature high-resolution cameras, facial recognition, and advanced artificial intelligence. The rollout of 5G networks promises even faster data speeds and new applications in areas like augmented reality and the Internet of Things (IoT).

Additionally, foldable phones and advancements in battery technology are setting the stage for future innovations.

Throughout their history, cell phones have evolved from bulky, expensive devices to sleek, multifunctional smartphones, continually transforming how we live, work, and connect with others.

Activity: Answer the questions based on the text.

1. Who made the first handheld mobile phone call?

- A. Steve Jobs
- B. Martin Cooper
- C. Alexander Graham Bell
- D. Bill Gates

2. What was the name of the first commercially available cell phone?

- A. Motorola StarTAC
- B. Motorola DynaTAC 8000X
- C. Nokia 3310
- D. iPhone 3G

3. Which cell phone introduced in 1996 was known for its compact, flip-style design?

- A. Motorola DynaTAC
- B. Nokia 1100
- C. Motorola StarTAC
- D. Samsung Galaxy

4. What major innovation did the iPhone, introduced in 2007, bring to the cell phone market?

- A. Physical keyboard
- B. Touch screen interface
- C. Infrared communication
- D. Large, removable battery

5. Which network technology was introduced after 3G to enhance mobile internet speeds?

- A. 2G
- B. 4G
- C. 5G
- D. Wi-Fi

6. What feature is commonly associated with modern smartphones that was not present in early cell phones?

- A. Analog signal
- B. Physical rotary dial
- C. High-resolution camera
- D. AM radio

7. What technology is promising even faster data speeds and new applications like augmented reality?

- A. 3G
- B. 4G
- C. 5G
- D. Bluetooth

True/False Questions

8. The Motorola DynaTAC 8000X was the first cell phone available to the public.

- True
- False

9. The iPhone was introduced before the Motorola StarTAC.

- True
- False

10. Foldable phones are a recent development in cell phone technology.

- True
- False

Speaking Discussion

• How cell phones have changed communication, entertainment, and work.

- Examples of positive and negative effects on daily life.
- Predictions for future developments in cell phone technology.

Group Work Activity: Create a comparison chart of top smartphones in 2024

When choosing a smartphone, it's essential to consider key features such as performance, camera quality, battery life, and price.

Here's a comparison chart of three popular smartphones of 2024 to help guide your purchasing decision.

Feature	Apple iPhone 15 Pro	Samsung Galaxy S24 Ultra	Google Pixel 8 Pro
Display	6.1-inch Super Retina XDR OLED, 2556 x 1179 pixels	6.8-inch Dynamic AMOLED 2X, 3200 x 1440 pixels	6.7-inch LTPO AMOLED, 3120 x 1440 pixels
Processor	A17 Bionic chip	Snapdragon 8 Gen 3	Google Tensor G3
RAM	8 GB	12 GB	12 GB
Storage Options	128 GB, 256 GB, 512 GB, 1 TB	256 GB, 512 GB, 1 TB	128 GB, 256 GB, 512 GB
Rear Cameras	48 MP (wide), 12 MP (ultrawide), 12 MP (telephoto)	200 MP (wide), 12 MP (ultrawide), 10 MP (periscope zoom)	50 MP (wide), 48 MP (ultrawide), 48 MP (telephoto)
Front Camera	12 MP	40 MP	10.8 MP
Battery Life	Up to 28 hours of talk time	Up to 30 hours of talk time	Up to 24 hours of talk time
Operating System	iOS 17	Android 14	Android 14
5G Connectivity	Yes	Yes	Yes
Price	Starting at \$999	Starting at \$1,199	Starting at \$899
Unique Features	Dynamic Island, ProMotion display	S Pen support, 100x Space Zoom	Advanced AI features, Titan M2 security chip

Home assignment

Write about how cell phones have impacted your daily life, communication habits, and personal relationships.

Include thoughts on how you use your phone, what features you find most valuable, and any changes you would like to see in future cell phones. Words limit (100-150).