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Meaning of Digital Technology, Its Importance and Examples of Digital Devices

Meaning of Digital Technology

Digital technology is the use of electronic devices and computer systems to collect, process, store and communicate information.

Examples of information handled by digital technology include:

Text Numbers Pictures Sound Videos Documents Messages

For example, when a student takes a photograph with a smartphone, the phone changes the image into digital information. The photograph can then be stored, edited, displayed or shared with another person.

Meaning of a Digital Device

A **digital device** is an electronic machine that receives, processes, stores or sends information in digital form.

Most digital devices perform one or more of the following functions:

1. **Input:** Receiving data or instructions.
2. **Processing:** Working on the data received.
3. **Storage:** Keeping information for future use.
4. **Output:** Presenting the processed information.
5. **Communication:** Sending information from one person or device to another.

Examples of Digital Devices

1. Desktop computer
2. Laptop computer
3. Smartphone
4. Tablet
5. Digital camera
6. Calculator
7. Digital television
8. Radio
9. Printer
10. Scanner
11. Automated Teller Machine
12. Point-of-Sale terminal
13. Traffic light

Importance of Digital Technology in Everyday Life

1. Education: Digital technology makes teaching and learning easier. Students can use computers, tablets and smartphones to:

- Read electronic books
- Conduct research
- Watch educational videos
- Type assignments
- Practise examination questions
- Attend online classes
- Learn new skills

Teachers can use digital devices to prepare notes, set examinations, calculate results and communicate with parents.

2. Communication

Digital technology enables people to communicate quickly over short and long distances.

Examples include:

- Telephone calls
- Text messages
- Emails
- Video calls
- Social-media messages

A person in Lagos can communicate with another person in Abuja, London or any other location within seconds.

3. Banking and finance

Digital technology makes banking faster and more convenient.

People can:

- Transfer money
- Pay bills
- Check account balances
- Purchase airtime and data
- Withdraw money from an ATM
- Pay with a POS terminal
- Use mobile-banking applications

Users must protect their PINs, passwords and verification codes.

4. Healthcare

Doctors and nurses use digital devices to:

- Keep patients' records
- Check blood pressure
- Perform medical tests
- Examine parts of the body
- Communicate with patients
- Monitor health conditions

Digital thermometers and blood-pressure monitors are examples of digital healthcare devices.

5. Transportation

Digital technology is used in cars, buses, aircraft and ships.

It helps people to:

- Use electronic maps
- Find locations
- Book trips online
- Monitor traffic
- Pay transportation fares
- Order rides through transport applications

Electronic maps can help a person find places in Lagos, such as Ikeja, Lekki, Yaba or Badagry.

6. Business and commerce

Businesses use digital technology to:

- Advertise products
- Keep financial records
- Communicate with customers
- Design and print documents
- Receive electronic payments
- Sell goods through the internet
- Monitor available products

7. Government services

Government organizations use digital technology to keep records and provide services.

It can be used for:

- National identification
- Passport applications
- Tax payments
- Voter registration
- Vehicle registration
- Communication with members of the public

8. Entertainment

Digital devices provide different forms of entertainment, including:

- Music
- Films
- Electronic games
- Cartoons
- Digital books
- Online videos

Entertainment should not prevent students from studying, sleeping or performing their responsibilities.

9. Security

Digital technology is used to protect people and property.

Examples include:

- Security cameras
- Electronic alarms
- Biometric locks
- Tracking devices
- Smoke detectors

10. Weather forecasting

Scientists use digital technology to study weather conditions. Weather information helps people prepare for rain, storms, flooding or very hot conditions.

This is particularly useful during the rainy season in Lagos.

11. Agriculture

Farmers use digital technology to:

- Obtain weather information
- Learn modern farming methods
- Find buyers
- Check market prices
- Keep farm records
- Monitor crops and animals

12. Saving time and energy

Digital devices can complete certain tasks more quickly than people. For example, a calculator can solve a long calculation within seconds.

13. Storage of information

Large amounts of information can be stored on computers, smartphones, memory cards and other storage devices. Digital information is easier to search, copy and share.

Uses of Digital Technology in Different Places

Place	Examples of digital devices	Uses
Home	Television, smartphone and digital clock	Communication, learning and entertainment
School	Computer, projector, printer and tablet	Teaching, learning, examination and record-keeping
Bank	ATM, computer and biometric scanner	Deposits, withdrawals, transfers and identification
Hospital	Digital thermometer, computer and scanning machine	Diagnosis, treatment and keeping patients' records
Office	Computer, printer, scanner and telephone	Preparing documents and communication
Supermarket	Barcode scanner, POS terminal and computer	Recording sales and receiving payments
Road	Traffic light and security camera	Traffic control and security
Airport	Computer, scanner and display board	Booking, security and travel information

Advantages of Digital Technology

Digital technology:

- Makes communication faster.
- Makes learning more interesting.
- Saves time and energy.
- Stores large amounts of information.
- Makes calculations easier and more accurate.
- Supports online banking and electronic payments.
- Creates employment opportunities.
- Improves healthcare and security.
- Makes information easier to find and share.
- Helps businesses reach more customers.

Possible Disadvantages of Digital Technology

Although digital technology is useful, its misuse can cause problems.

These include:

- Internet addiction
- Cyberbullying
- Online fraud
- Theft of personal information
- Exposure to harmful content
- Distraction from schoolwork
- Reduced physical activity

- Eye strain from excessive screen use
- Loss of information through viruses or device damage
- Spread of false information

Digital technology is a useful tool, but it must be used wisely and responsibly.

Safe and Responsible Use of Digital Technology

Students should:

1. Use strong passwords.
2. Keep passwords and PINs private.
3. Avoid sharing personal information with strangers.
4. Ask a parent or teacher before downloading unfamiliar files.
5. Avoid opening suspicious links.
6. Treat other internet users respectfully.
7. Report cyberbullying to a trusted adult.
8. Avoid using digital devices for too long.
9. Confirm information before sharing it.
10. Use the internet mainly for useful and age-appropriate activities.
11. Never share a bank verification code or one-time password.
12. Avoid meeting an online stranger without the knowledge of a parent or guardian.

Difference Between Digital and Non-Digital Devices

Digital device	Non-digital device
Processes information electronically	May work without processing electronic information
Can often store information	Usually cannot store digital information
May be programmable	Is usually not programmable
Examples: laptop and smartphone	Examples: broom and wooden ruler

Some devices use both digital and mechanical parts. A modern car, for example, is a mechanical machine that also contains digital systems.

Summary

Digital technology involves electronic tools and systems used to create, process, store and communicate information. Digital devices include computers, smartphones, tablets, calculators, ATMs, POS terminals, digital cameras and projectors.

Digital technology is important in education, communication, banking, healthcare, transportation, security, entertainment, business and government. However, students must use it safely, responsibly and in moderation.

Evaluation Questions

1. What is digital technology?
2. What is a digital device?
3. Mention five types of information handled by digital devices.
4. List ten examples of digital devices.
5. State five ways digital technology is used in education.
6. Mention four uses of digital technology in banking.
7. State five advantages of digital technology.
8. Mention five dangers associated with the misuse of digital technology.
9. State five rules for using digital technology safely.
10. Differentiate between digital and non-digital devices.