

Reading Comprehension: History of Tech

About This Activity

Introduction

In this activity, learners will read a short passage about how technology has changed in a category and then answer questions to show their understanding of the content. There are five different variations of this activity in order for learners to read about more than one category of technology.

Objective

Upon completion of this activity, learners will:

- know about how technology has changed throughout history in categories that are familiar to them

What You Need

This activity requires a low level of facilitator participation.

Each sheet will take about 20 minutes to complete.

You will need the following supplies:

- Pencil

Facilitator's Instructions

1. Print out the Learner's Sheet pages.
2. Gather your supplies.
3. Give your learner one of the reading comprehension sheets.
4. Tell your learner about this activity: "Today, you're going to do a reading comprehension activity to learn about how technology has changed over the years! Read through the passage on this sheet and then answer the questions at the end. When you're done, we'll see how many you got right."
5. Ask your learner to tell you when they are all done.
6. When they are done, check their work against the answer key.
7. Congratulate your learner on a job well done!

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Standards Addressed

CSTA

1A-IC-16, Impacts of Computing, Culture: Compare how people live and work before and after the implementation or adoption of new computing technology.

1B-IC-18, Impacts of Computing, Culture: Discuss computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices.

Common Core

RI.3.1: Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

RI.3.2: Determine the main idea of a text; recount the key details and explain how they support the main idea.

RI.3.3: Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

Reading Comprehension: History of Tech

Answer Keys

Answer Key #1

1. What was the first invention that allowed people to listen to music at home?
Answer: The phonograph was the first invention that allowed people to listen to music at home. It was invented by Thomas Edison in 1877.
2. What were the benefits and drawbacks to listening to music on cassette tapes?
Answer: Cassettes were smaller and stronger than records. But it was hard to find a certain song on a cassette.
3. What device reshaped the way we listen to music today?
Answer: The iPod allowed users to store music directly on the device. This allowed people to build large music collections without needing physical space for storage.

Answer Key #2

1. Why do you think VHS became more popular than Beta?
Answer: VHS machines were easier to use and less expensive than Betas. More could be recorded on a VHS tape.
2. How did Blu-ray technology make watching movies at home better than DVD technology did?
Answer: More data could be put on a Blu-ray disc and the quality was better. Blu-ray tech allowed people to use existing DVDs on their Blu-ray players.
3. Why is streaming better than using DVDs or Blu-ray discs?
Answer: People don't need to store physical copies of movies or shows. They have access to more titles than they would using DVDs or Blu-rays.

Answer Key #3

1. What would have happened to home video game systems if Pong had not been a success?
Answer: If Pong had not been successful, it would have shown that people were not interested in playing home video games. Companies would not have developed game systems as quickly as they did, if at all.
2. How did graphics change in home game systems over the years? What caused the changes?
Answer: Graphics became better over time. They became more realistic. The changes were due to more advanced microprocessors.
3. How did the internet change the way people played video games at home?
Answer: People were able to play video games with their friends, even if they were in different places.

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Answer Key #4

1. Over time, what happened to the amount of data that could be stored?
Answer: Over time, the amount of data that could be stored grew.
2. What was a disadvantage of using CDs for storage?
Answer: CDs scratched easily. They required users to have a CD drive.
3. What is convenient about using flash drives?
Answer: Flash drives are small and easy to store. They plug directly into the USB port of a computer so there is no need for a special drive.

Answer Key #5

1. Why did people switch from candlestick phones to rotary phones?
Answer: When candlestick phones were used, an operator connected calls. When switchboards changed, people needed to dial their own phones. Candlestick phones had no numbers. Rotary phones had a dial that let people input phone numbers themselves.
2. Why did people prefer using home phones in the 1980s, even though cell phones were available?
Answer: The cell phones at the time were heavy and large. It took a long time for them to charge, and the batteries wore out after only 30 minutes of talking. Home phones were easier to use and had endless talk time.
3. What changed the way people used phones?
Answer: Smartphones changed the way people used phones. They had many useful features and could be used anywhere. They could also be used to access the internet, like a computer.

Reading Comprehension: History of Tech #1

Directions

Have you ever wondered how listening to music has changed throughout history? Let's learn how by reading the following passage. Then, answer the questions that follow.

What You Need

✓ Pencil

Technology and Listening to Music

If you want to hear a favorite song, it's easy to do. Just find it on an app and press play. But listening to music hasn't always been so simple.

Up to the mid-1800s, the only way to listen to music was to hear it live. That changed in 1877. Thomas Edison invented the phonograph. It let people record sound on wax cylinders. By turning a crank, they could play the recording back.

In 1887, Emile Berliner went one step further. He invented the gramophone. Sound was recorded by carving grooves into glass disks. These were called records. A needle moved over the grooves. The vibrations created sound.

In the 1920s, gramophones changed. They were not wound by hand. They used electricity instead. People called them record players. Vinyl records were created for them in the 1930s. These records could be made faster. But they were still breakable. Record players were popular until the 1970s.

When cassette tapes were invented in 1962, people liked how small they were. Magnetic tape was used to record sound. The tape was encased in plastic. This made cassettes stronger than records. But finding a certain song on a cassette was hard to do.

Compact discs came out in 1982. They were called CDs for short. CDs were expensive at first, but people liked them. Users could skip to certain songs like they had with records. But CDs were smaller and more durable than records had been.

Listening to music changed forever in 2001. The iPod was the world's first digital music device. Songs were stored directly on the iPod. Next, music streaming sites were created. These allowed people to listen to music online using an app.

The way we listen to music has changed over the years. It is fun to imagine how it will change again in the future!

Reading Comprehension: History of Tech #2

Directions

Have you ever wondered how people used to watch movies at home before DVDs, Blu-ray, and Netflix? Let's learn how by reading the following passage. Then, answer the questions that follow.

Technology and Watching Movies at Home

Watching movies at home is fun. But the way we watch movies at home has changed a lot over the years.

At first, the only place to see movies was a movie theater. In 1975, video cassette recorders, or VCRs, were released. These machines recorded video from a TV onto a magnetic tape. People could watch their recorded videos later. They could also rent or buy movies on videotapes.

The first VCRs were called Betamax machines. One year later, another type of VCR came out. It was called a VHS machine, which was short for Video Home System. VHS machines were less expensive than Betas. They were also easier to use. More could be recorded on one VHS tape than on one Beta tape. Over time, VHS machines became more popular.


In 1995, DVD players were introduced. These machines were like VCRs, but they played discs. DVD movies were of better quality than VHS movies. DVDs were cheaper to make. And DVDs were smaller, so movie collections took less space. People really liked DVDs. Netflix opened in 1997. They offered mail-in DVD rentals.

Blu-ray discs came out in 2006. These looked and worked like DVDs, but the quality was even better. More data fit on one disc. And best of all, users could play DVDs on Blu-ray players.

But the biggest change came in 2007. Netflix introduced movie streaming. Streaming is watching a movie or TV show over the internet. No storage is needed. Over time, other streaming services started, too.

Streaming is very popular today. Most families use streaming services to watch movies and TV shows at home. Have you?

What You Need


 Pencil

Reading Comprehension: History of Tech #3

Directions

Have you ever wondered how playing video games has changed throughout history? Let's learn how by reading the following passage. Then, answer the questions that follow.

What You Need

 Pencil

Technology and Playing Video Games

Today, most kids have a video game system at home. Video games are used for fun, fitness, and to connect with friends. But home gaming systems haven't always been so versatile.

The first home gaming system was sold in 1975. It was called Pong. The console was hooked to a TV. Pong had only one game, ping pong. The graphics were in black and white. They were very simple. Pong was a big success.

Atari released the first home video game console in 1977. It was called Atari 2600. Games came on cartridges. They were inserted into the console. Graphics were in color, but they were simple. At first, people really liked this system. But soon they preferred going out to arcades. Arcade games had better graphics.

In 1983, Nintendo released the Nintendo Entertainment System, or NES. This console began the 8-bit era of in-home gaming. These systems used 8-bit game cartridges. They gave people the same graphics at home as they saw in arcades.

In 1989, game systems became better. They used 16-bit microprocessors. This gave games better graphics. Game controllers improved, too. They had more buttons, so players had more ways to move. The most popular 16-bit game systems were Sega Genesis and Super NES.

By 1993, playing home video games was common. Companies improved gaming systems again. They brought 32 and 64-bit systems to life. These games had 3D graphics that seemed real. Sounds were of high quality. Some systems moved from game cartridges to game CDs. Gamers really liked these systems.

By 1998, the internet was part of daily life. So, game consoles merged the internet with gameplay. People could play games with friends online. Systems like these were Xbox, Game Cube, and Playstation 2.

Companies kept looking for ways to make gaming systems better. In 2005, a new idea came out. Instead of using a controller, players used body movements. Xbox 360 was the first to release games like these. Suddenly, players could experience games with their bodies. We can only imagine what gaming will be like in the future.

Reading Comprehension: History of Tech #4

Directions

Have you ever wondered how saving files and data on computers has changed over the years? Let's learn how by reading the following passage. Then, answer the questions that follow.

Technology and Storing Files and Data

Computers are in almost every home. They help us work, learn, and have fun. People can transfer data easily from one device to another. But data transfer and storage have not always been so easy.

The first type of file storage for home computers was developed in 1978. It was known as a floppy disk. A floppy disk was a thin square of plastic that was 5.25 inches long. A magnetic disk inside the plastic held data. Computers accessed the data through a hole in the middle of the plastic. The shape of a floppy disk is still used today as the save icon in most computer programs.

In 1982, a smaller version of the floppy disk was released. It was 3.5-inches. It had the same magnetic disk center, but it was made of harder plastic. The hole in the center was replaced with a metal clip. People liked these disks more than the 5.25-inch disks. The 3.5-inch disks could store more and were more durable.

In the 1990s, CDs were the best way to save and store files. There were two kinds, CD-R and CD-RW. CD-Rs stored data that didn't change. CD-RWs were rewritable, so they were used to save data that changed often. The bad thing about CDs was they could be scratched easily. And a CD drive was needed to access the data on the CD.

The first flash drive came out in 2000. Flash drives were only 3 inches long, but they held more data than CDs. No new devices were needed to access the data saved on flash drives. Flash drives plugged into computer USB ports.

In 2011, Microsoft introduced cloud storage. This type of storage lets people save limitless data online instead of to an object. Users like being able to access clouds from any online device. Cloud storage is still growing in popularity. It may be a favorite way to store files for years to come.

What You Need

✓ Pencil

Reading Comprehension: History of Tech #5

Directions

Have you ever wondered how telephones have changed throughout history? Let's learn how by reading the following passage. Then, answer the questions that follow.

Technology and Telephones

Today, almost everyone has a cell phone. People carry them everywhere. But long ago, having a phone was rare.

In the 1890s, neighborhoods often shared one phone. A switchboard operator connected calls, so phones had no numbers on them. They were called candlestick phones because the base looked like a candle with a mouthpiece on top. An earpiece was connected to the base with a cord. The base was connected to the phone line.

In the early 1900s, switchboards changed so people could dial their own calls. They did this using rotary phones. A rotary phone had a numbered dial on its base. The dial was used to input phone numbers. Rotary phones also had a receiver instead of a mouthpiece and earpiece. The receiver was attached to the base with a cord. Another wire connected the base to the phone line.

In 1963, the push-button phone was unveiled. It looked like a rotary phone, but it had buttons instead of a dial. This helped people dial numbers faster. Over time, push-button phones became smaller. But they still needed a phone line to work.

But in 1983, the first cellphone was made. People were finally able to make calls without a phone line. But early cell phones were different than they are today. They were large and heavy. Charging took 10 hours. That gave enough power for only 30 minutes of talk time.

Even though cell phones were available, people preferred making calls on home phones. In 1994, a new type of home phone came out. Cordless phones did not have a cord between the receiver and the phone's base. This let people move around more as they chatted. But if they moved too far from the base, they lost their connection.

In the meantime, cell phones were getting smaller and lighter. By 1996, these new cell phones, called feature phones, were used for more than talking. Some had keyboards for texting. Others folded in half. By the early 2000s, cameras, games, music players, and calendars could be found on feature phones.

Then, in 2007, the iPhone came out. It was the world's first smartphone. Smartphones had touch screens and virtual keyboards. They could also access the internet. This changed the way people used phones.

Now smartphones are becoming more powerful. They have more features than ever before. Many people have stopped using home phones and use cellphones instead. We can only guess how phones will change in the future.

What You Need

✓ Pencil

