

Name: \_\_\_\_\_

## WebQuest: Inventions That Changed Society

Directions: You are going to use the internet to research the following inventions and innovations that impacted the global society.

The following websites are of great help: <https://nickcornwell.weebly.com/technology-webquest.html>

[www.about.com](http://www.about.com), [www.howstuffworks.com](http://www.howstuffworks.com), [www.wikipedia.org](http://www.wikipedia.org), and [www.dictionary.com](http://www.dictionary.com).

Tips:

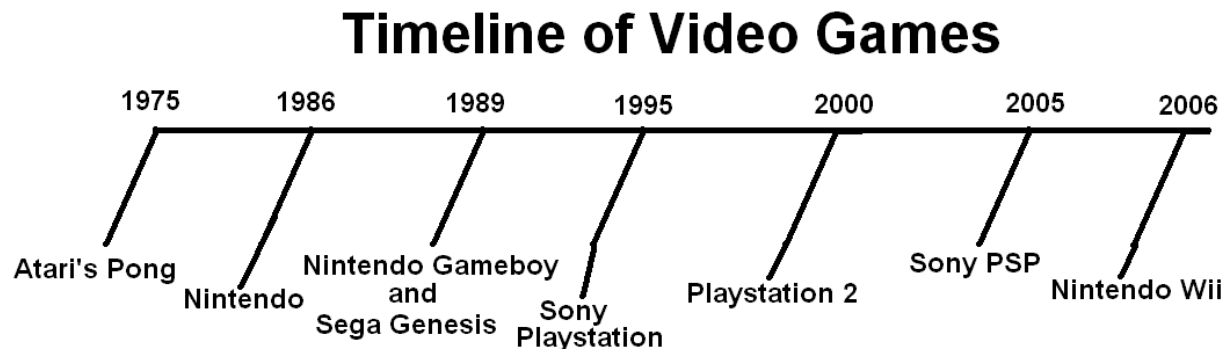
1. Do not go to google.com and type in the question. Instead, go to google.com and type in "history of television", or just "television".
2. You are going to have to read. Scan through websites to see if there are topics you would like to pursue.
3. Timelines should have 5-7 dates that are labeled with significance. An example is at the bottom of this page.

Before you start, define these three terms. Do not define the word by actually using the base word!

1. technology-
2. invention-
3. innovation-

### A. Example: Video Games

In the space below, draw a time line and label the evolution of video games.



## I. Indoor Plumbing

Use ([http://en.wikipedia.org/wiki/Tap\\_water](http://en.wikipedia.org/wiki/Tap_water), and <http://www.theplumber.com/plaque.html> )

In the space below, draw a time line and label the following terms that relate to modern plumbing. (Roman aquaducts, Thomas Crapper, fluoridation, sewers, water closet, low flush toilets, hot water heaters, and bidet)

1. Before people had indoor plumbing, why did they boil their water before they drank it?
2. The three most common materials used to make plumbing pipes are?
3. What does the word "potable" mean?
4. What is the difference between CPVC and PVC pipe?
5. What metal is typically used for pipes used in food production, such as a factory that produces milk?
6. Go to <http://home.howstuffworks.com/toilet1.htm> and in the space below, sketch and describe how the modern toilet works.
7. What is the importance of the s-curve in the back of the toilet?

- Toilets in America are typically known as the western toilet. Research and find a country which uses a different system and describe it.

## II. The Automobile

In the space below, draw a time line and label these famous automobiles. (Ford Model T, Chrysler Mini Van, Ford Mustang, Volkswagon Bug, Jeep, Corvette, Toyota Prius, Ford F-150, Mercedes Benz Gullwing)

- How many spark plugs does a diesel engine have? \_\_\_\_\_
- List the cycles of a 4-stroke engine. Then list the cycle of a 2-stroke engine. Give examples of each. [http://en.wikipedia.org/wiki/Two-stroke\\_engine](http://en.wikipedia.org/wiki/Two-stroke_engine) , <http://en.wikipedia.org/wiki/4-stroke>
- The bigger the vehicle is, the more likely it is going to have a \_\_\_\_\_ engine.
- What is the difference between a carbureted engine and a fuel injected engine?  
<http://www.doityourself.com/stry/fuel-injection-vs-carburetors>
- Explain how the Interstate numbering system works. What do odd and even numbers mean, and what do 3 digit numbers mean, and what sequence are they in?  
[http://en.wikipedia.org/wiki/Interstate\\_Highway\\_System](http://en.wikipedia.org/wiki/Interstate_Highway_System)
- Describe what a hybrid engine is.
- What is E85 fuel?
- What is an octane rating, and is it really worth your money to upgrade your octane?  
[http://en.wikipedia.org/wiki/Octane\\_rating](http://en.wikipedia.org/wiki/Octane_rating)

### III. The Radio

In the space below, draw a time line with the following terms that relate to the radio: short wave radio, AM, FM, XM, the transistor radio, Morse code, and digital radio.

1. What is the difference between AM, FM, and XM radio?
2. What is "ham radio"?
3. What is the FCC and what does it do? <http://en.wikipedia.org/wiki/FCC>
4. Which transmission can be sent out a farther distance, AM or FM, why?  
[http://www.diffen.com/difference/AM\\_vs\\_FM](http://www.diffen.com/difference/AM_vs_FM)
5. What does RADAR stand for? \_\_\_\_\_
6. What is Radio Control or RC?

#### **IV. The Television**

In the space below, draw a time line and label these famous television shows. (Andy Griffith, I Love Lucy, The Lawrence Welk Show, The 3 Stooges, American Bandstand, MASH, Sportscenter, American Idol, Simpsons, Survivor)

1. Define VHF-
2. Define Plasma TV-
3. Define LCD TV-
4. What is the difference between HDTV televisions and regular definition TVs. Be specific.  
<http://www.howstuffworks.com/hdtv.htm>
5. If you buy cable television, you receive the signal through a coaxial cable that comes into your house. How does the cable company receive the signal to distribute it?

#### **V. The Light Bulb**

In the space below, draw a time line and label the invention of the following terms: CFL, grow light, incandescent bulb, halogen bulb, neon lights, LEDs, carbon filament bulb, and black lights.

1. What is "white light"?

2. What is the difference between a halogen light and an incandescent light bulb?  
[http://en.wikipedia.org/wiki/Halogen\\_lamp](http://en.wikipedia.org/wiki/Halogen_lamp)
3. What is a LED?
4. What is a grow light?
5. Describe what happens when a light bulb burns out.

## VI. The Air Conditioner

In the space below, draw a time line with the following terms as they relate to the AC. (cistern, wind towers, aqueduct cooling systems, liquefied ammonia, methyl chloride refrigeration, automobile air conditioners, and propane refrigeration)

1. Why do old homes have high ceilings (9' or higher)?
2. What is Freon?
3. Air conditioners are categorized in BTUs. What is a BTU? <http://en.wikipedia.org/wiki/BTU>
4. What does the acronym HVAC mean?

## VII. Kitchen Appliances

In the space below, draw a time line and label the evolution of the refrigerator.  
<http://www.ideafinder.com/history/inventions/refrigerator.htm>

1. Before refrigerators, how did people keep food cool? What methods did they use to store food?
2. If you leave the door to the refrigerator open for a long time, the temperature of the room will rise. Why? <http://en.wikipedia.org/wiki/Refrigerators>
3. Explain the difference between an ice box and a refrigerator.
4. Why should refrigerators stay upright at all times?
5. Before electricity, kitchen stoves were fueled by what methods?

## VIII. The Camera

In the space below, draw a time line and label these terms that relate to photography (Polaroid, monochrome, color photography, digital photography, time-lapse photography, infrared photography and ultraviolet photography)

1. Define camera obscura- [http://en.wikipedia.org/wiki/Camera\\_obscura](http://en.wikipedia.org/wiki/Camera_obscura)
2. Explain what a pinhole camera is? [http://en.wikipedia.org/wiki/Pinhole\\_camera](http://en.wikipedia.org/wiki/Pinhole_camera)

## IX. The Personal Computer (PC)

In the space below, draw a time line and label the following terms : Apple, Windows, mainframe computers, Linux, Unix, IBM, Intel and AMD.

1. What is binary code? Write the current year in binary code (i.e. 2011)
2. List these in order from smallest to largest: megabyte, terabyte, byte, kilobyte, bit, gigabyte.
3. Most Windows-based computers are very simple machines. Using the parts listed, write one or two paragraphs describing the steps how you would assemble these parts to make your own computer, OR draw a picture WITH LABELS how these parts hook together to make a modern computer. Parts: motherboard, case, RAM, CPU, Operating System Software, monitor, keyboard, mouse, CD/DVD drive, speakers, sound card, video card, power supply, Ethernet port, USB ports, and fan.

## **X. The Internet**

In the space below, draw a time line and label these terms in relation to the internet. (Dial-up, Ethernet, WIFI, DSL, Internet Explorer, Netscape, Mozilla, Apple Safari)

1. What does HTML stand for? \_\_\_\_\_
2. What does http stand for? \_\_\_\_\_