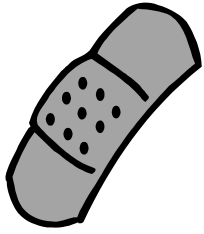
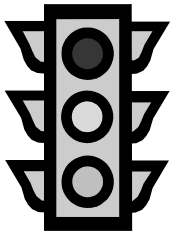


Selected Significant Technology Inventions/Inventors  
and Scientific Discoveries



**Band-Aid**  
**Earle Dickson**  
**1921**



**Traffic Signal**  
**Garrett Morgan**  
**1923**



**\*Antibiotics**  
**Alexander Fleming**  
**1928**



Ballpoint Pen  
Ladislo Biro  
1938



Air Bags  
Allen Breed  
1968



\*MRI  
Dr. Raymond Damadian  
1977

## Background Information

Band-Aid, Earle Dickson, 1921

Band-Aids stay in place better than gauze and tape and help protect small wounds, thus improving one's health.

Traffic Signal, Garrett Morgan, 1923

The invention of automated traffic signals regulated traffic and made auto travel much safer.

\*Antibiotics, Alexander Fleming, 1928

The discovery of antibiotics has had a tremendous impact on health. Antibiotics kill bacteria that make us sick.

Ballpoint Pen, Ladislo Biro, 1938

The invention of the ballpoint pen made writing neater and faster. You could write for a year without having to refill your pen. The ink did not smear.

Air Bags, Allen Breed, 1968

Air bags help prevent injuries from auto accidents.

\*MRI, Dr. Raymond Damadian, 1977

The discovery of magnetic resonance imaging allows doctors to look inside the body without surgery. It makes diagnosis of diseases and conditions easier and more accurate. More diseases can be cured with earlier detection.

\* = Scientific Discovery

## Reference Suggestions for Modeling

Subject: Alexander Fleming's Discovery of Antibiotics

Possible References:

*Mistakes That Worked* by Charlotte Foltz Jones, New York: Doubleday, c1991, ISBN: 0385320434.

History of Invention, Penicillin at <http://cbc4kids.cbc.ca/archives.html>

Biographical Dictionary at  
<http://school.discovery.com/schrockguide/history/histg.html>

World Book Encyclopedia

## List of Significant Technology Inventions/Inventors and Scientific Discoveries

(Background information concerning the impact of the invention/discovery is provided for teacher reference.)

1. Cotton Gin – Eli Whitney  
A cotton gin is a machine that separates the cotton from the seeds. This machine revitalized the South by increasing the production of cotton for exports. People in the South sold the cotton for money.
2. Steamboat – Robert Fulton  
The steamboat made travel faster and easier. It also made traveling longer distances more possible.
3. Sewing Machine – Isaac Singer  
Up until the time of this invention all clothes were made by hand. The invention of the sewing machine fostered the clothing industry, thus providing many jobs and more availability of clothing.
4. Light Bulb – Thomas Edison  
The light bulb provided a longer lasting, safer means of light. It also made a difference in lifestyles, as now people could stay up later.
5. Gasoline Auto – Charles and Frank Duryea  
The gasoline auto changed the world in many ways. It made land travel faster and easier. It made it possible for people to move more frequently and further distances. Negatives: pollution, use of natural resources, accidents, etc.
6. Air Conditioner – Willis Carrier  
Help: Made tolerance of warmer temperatures more bearable. Made breathing easier for people with respiratory problems.  
Hindrance: Possible hindrances might include: People tend to stay in an air-conditioned room instead of getting out and exercising. Air-conditioning increased the amount of electrical power needed for daily life.
7. Airplane – Wilbur and Orville Wright  
The airplane paved the way for passenger flights and became an important military asset. It made traveling long distances more possible. This airplane led to other inventions in air travel.

8. Plastic – Leo Baekeland  
Often called “the material with a thousand uses,” plastic can be found everywhere. The invention of plastic made everyday objects more readily available. The invention of plastic has helped the medical field tremendously. From IV tubes to artificial hearts, plastics have improved medical care.  
Hindrances: Possible hindrances might include the overuse of natural resources to produce plastic and the problems with disposing of them.
9. Assembly Line Production of Cars – Henry Ford  
Henry Ford’s contribution of the assembly line production of cars made them more readily available. The automobile became the primary mode of transportation. The automobile enabled people to move about more freely, thus fostering the formation of cities and suburbs.
10. Frozen foods – Clarence Birdseye  
The invention of frozen foods impacted lifestyles by preserving nutrients in foods and making it possible for foods to be shipped to other areas of the country where they were not typically grown. Frozen foods increased the availability of nutritious foods. Frozen foods were also easy to prepare and reduced the amount of time women spent in the kitchen.
11. Liquid fueled rocket – Robert Goddard  
The invention of the liquid fuel rocket increased the speed and distance a rocket could travel. This invention led to others and paved the way to the Space Age.
12. Penicillin – Alexander Fleming  
The discovery of penicillin has helped human health tremendously. Penicillin is used to fight bacterial infections. It was used with our troops during World War II.
13. Atomic Power – Team of scientists  
Controlled atomic power can be very helpful to mankind. It can provide energy for electricity. Uncontrolled, it can be used to destroy and be very harmful.
14. Transistor – William Shockley  
The transistor made it possible for computers to work at the speed of light. With transistors electronic devices could be made smaller, lighter, and less expensively.
15. Polio Vaccine – Jonas Salk

The polio vaccine helped wipe out the threat of polio, a crippling disease.

16. Wireless remote control – Robert Adler

The invention of the wireless remote control made it possible to manipulate devices from a distance. This invention made life more convenient and allows tasks that might be harmful to humans to be done from a distance. A negative impact might be that using a wireless remote control for television viewing might foster a sedentary lifestyle.

17. Microwave Oven – Percy Spencer

This invention provided a quicker, easier way to cook.

18. Personal computer – Steve Jobs and Steve Wosniak

The personal computer has made communication faster and easier. With Internet hookup, a person can communicate with other people all over the world. Vast amounts of information are available through the World Wide Web.

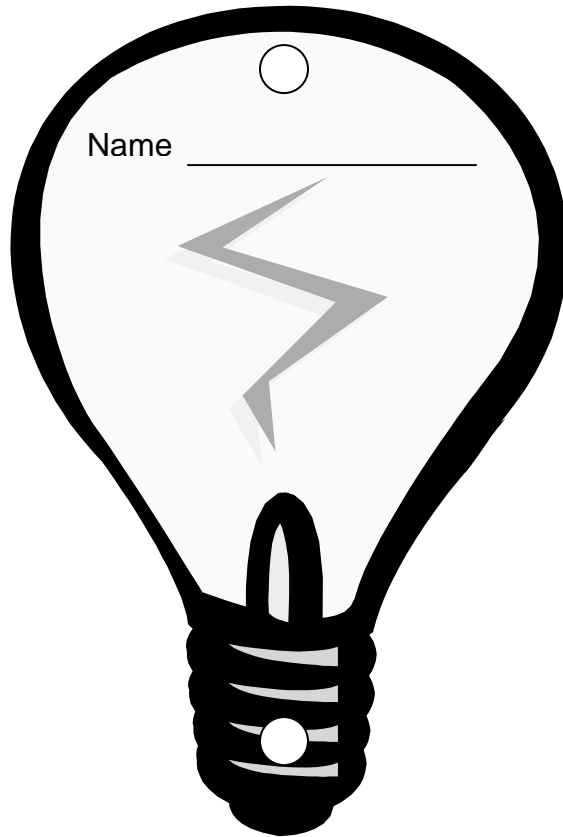
19. Space shuttle – NASA scientists

The space shuttle was the first manned spacecraft that could be reused. It allows scientists to learn more about outer space. It also allows astronauts to perform valuable medical and scientific experiments in space.

20. Hubble telescope – NASA scientists

Provides pictures and data concerning the heavenly universe. Helps scientist understand more about space and the Earth.

# Invention/Discovery Mobiles






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Impact

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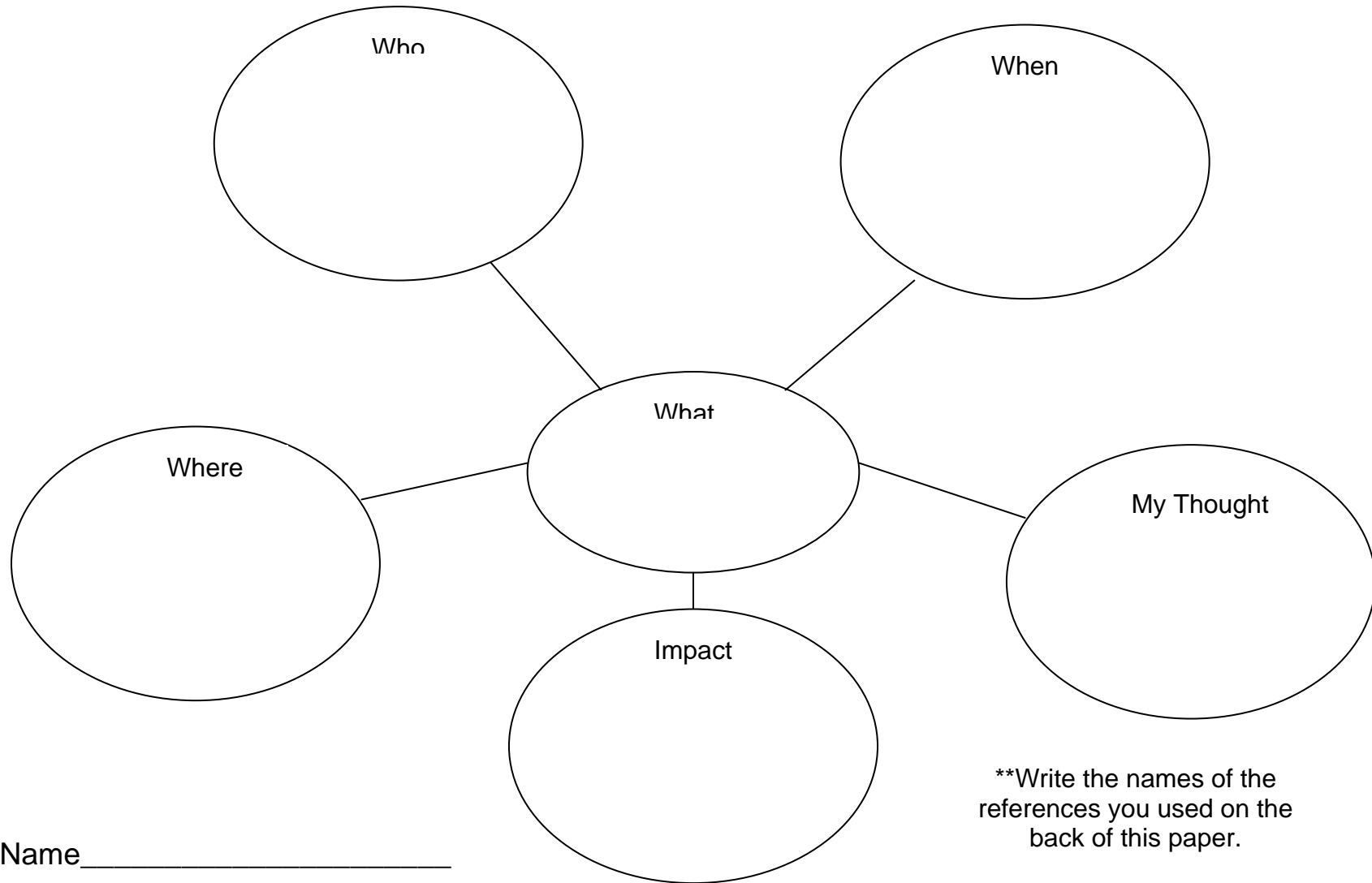
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Picture

# Graphic Organizer



### Imagine That Checklist

+ = Acceptable Δ = Needs work  Student	Students read and organize information to perform a task. LA.A.2.2.5.3.1	Students write to record information. LA.B.2.2.3.3.1	Students use a variety of references. LA.A.2.2.8.3.1	Students know significant people and their contributions in the field of communication. SS.A.3.2.1.3.1	Students understand ways these devices in the field of communication impacted society. SS.A.3.2.1.3.2	The student understands how scientific discoveries have helped or hindered progress regarding human health and lifestyles. SC.H.3.2.3.3.1