

CHINESE INVENTIONS AND THEIR IMPACT ON TODAY'S TECHNOLOGY

Lesson Overview:

Students will choose a Chinese inventor and invention to research. They will prepare a written report on the history of the invention and the inventor and include how that invention has impacted the technology of the world. They will also create a poster of the inventor and the invention. They will complete the project by doing a class presentation on their project.

Grade Level: 8th grade

Ohio Academic Science Grade Level Indicators:

Science & Technology (ST) 8.1 – Examine how science and technology have advanced through the contributions of many different people, cultures and times in history.

Science & Technology (ST) 8.2 – Examine how choices regarding the use of technology are influenced by constraints caused by various unavoidable factors (e.g., geographic location, limited resources, social, political, and economic considerations).

Time: Four 45 minute class periods

Vocabulary: Technology

Leading Question: What impact has Chinese inventions had on the technology of the world?

Materials:

Internet, Poster Board, Printer, Glue, Colored Pencils, Markers, Index Cards, Pencil, Scissors, Construction Paper, Printer Paper

Procedure:

Day 1:

- 1) Students will meet in the computer lab. Hand out quizzes on origin of different inventions. Give students 5 minutes to do quiz, then go over together. (All inventions listed originated in China.) Discuss the number of and importance of the many inventions from China that have impacted the world that most people do not realize came from China.
- 2) The expectations for the project will be passed out. Teacher will go over each expectation and give due date for project.
- 3) After students have had an opportunity to ask questions, they should begin researching on the computer to find a Chinese inventor and invention as their topic. Topics should be chosen and turned in to teacher by the end of the period.

Day 2:

- 1) Students will meet in the computer lab. They will use the internet to research their chosen topic. They should use index cards to take notes on for their report.
- 2) At end of the period, make sure students know their reports and posters must be completed at home. If time permits, class may go to computer lab more, but students should realize that the project should ultimately be completed at home.

Day 3: (This would be 2-3 weeks later, on the project due date.)

- 1) Students should have signed up prior to this date as to the order they would like to give their report in.
- 2) Students will get in front of the class and give a 2-3 minutes presentation on their chosen topic. (While students are presenting, teacher will be scoring presentation. See attached score sheet). When finished with presentation, the audience has the chance to ask 3-5 questions about the topic.
- 3) While speaker is presenting, the students in the audience will be completing a worksheet covering the presentations. (See Attached worksheet). Students should turn in their posters and reports when they are finished with their presentations.

Day 4:

- 1) Continue presentations on chosen topics. Audience should continue to record information on their worksheet for each presentation.
- 2) When all presentations are finished, if time permits, have a discussion on which invention has had the most impact on the world and why. What are students' opinions?
- 3) Collect presentation worksheets at the end of the period.

Assessment:

- 1) Presentations
- 2) Written Reports
- 3) Posters
- 4) Discussion Questions

Differentiations :

- 1) For special needs students, reports can be shortened. Instead of 3 pages, shorten it to 2 pages.
- 2) Instead of having special needs students research their own Chinese inventor/invention, give them a list to choose from and provide websites for them to use. If possible, allow them more time to work in computer lab.

Extensions :

- 1) Have an invention day where students have to actually bring in the invention their Chinese inventor created and share with other classes.
- 2) Have students write a story about what the world would be like without the inventions of the Chinese.

Resources:

- 1) inventors.about.com/od/chineseinventors/Chinese_Inventions.htm

Name _____

Period # _____

THE ORIGIN OF INVENTIONS

Read each statement and choose if it is TRUE or FALSE. Write T (True) or F (False) on the line.

_____ Gunpowder and firecrackers was created in Europe during Medieval Times for sorcery.

_____ The first seismograph was used in California to detect earthquake waves.

_____ Paper was first created in Egypt from a plant called Papyrus.

_____ The Razor Scooter was created in a Chinese factory so the boss could get around faster.

_____ Ancient Vikings from Normandy invented the compass to help them navigate their boats to new land.

_____ The stirrups used on horses were first used in China to help men stay on their horses.

_____ The concept of the number zero was invented by the ancient Mayans to help count their gold.

_____ Bronze was first made by cavemen in Africa to help them make tools.

_____ The Japanese first used umbrellas to shade them from the summer sun.

_____ Spain was the first country to use masts and fore-and-aft rigs to sail their boats around the world.

_____ The kite was first invented in England as a child's toy.

_____ The Chinese were the first to use movable type printing to print books.

CHINESE INVENTORS PROJECT

Expectations

Credit = 200 pts.

WRITTEN REPORT (100 pts)

- 1) Must be **typed** or handwritten in **ink**. **NO PENCIL!!!!!!!!!!!!!!**
- 2) Typed papers **MUST** be **double**-spaced. Handwritten papers **MUST** be **single**-spaced.
- 3) Must be **3 pages** in length. Page 1 is on the life of the inventor. Page 2 is on the invention. Page 3 is on the impact the invention has had on world technology.
- 4) Must be **neat**.
- 5) Must be spelled correctly. Use spell check and/or have someone else proofread it for you. (That's what parents are for!!!!!!!!)
- 6) Must have a **title page** including the title of your paper, your name, date paper is due, and which class you are in.
- 7) Must have a **bibliography** listed at the end. **MUST** use **at least 3** sources. These can be books, magazines, or websites. **Yahoo and Google are not websites**. Title, author, and date published are required in bibliography for each source.

POSTER (50 pts)

- 1) Words must be done in **ink** or **typed**. **NO PENCIL!!!!!!!!!!!!!!!!!!!!!!**
- 2) Must be **colorful**.
- 3) Must be **neat**.
- 4) Must have a **title**.
- 5) Must have **at least 1 picture** of the Chinese inventor.
- 6) Must have **at least 1 picture** of the invention.
- 7) Must have **captions** for **ALL** pictures.
- 8) Must be **poster sized**, not a sheet of paper!

PRESENTATION (50 pts)

- 1) Must use **note cards**. You can **NOT** read straight from your written report.
- 2) Must be **at least 2 minutes** long.
- 3) Must have and **use a visual aid**. This can be a picture (on your poster) or the actual invention.
- 4) If you have a partner, **both of you must speak**.
- 5) Must be **loud** enough to hear from back of room.
- 6) Must have **eye contact** with audience.
- 7) Must answer **at least 3 questions** from audience when finished with presentation.

ALL PARTS OF PROJECT ARE DUE ON _____.

If you are not ready to go at your presentation time, you will lose 1 letter grade for each day you are late. **NO PROJECTS WILL BE ACCEPTED AFTER 1 WEEK LATE.**

Inventor Name	Invention	Impact on World Technology
1		
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CHINESE INVENTORS PROJECT

SCORE SHEET

(200 pts)

Name _____

Inventor _____ Invention _____

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WRITTEN REPORT (100 pts)

INFORMATION	0	5	10	15	20	25	30	35	40	45	50
TITLE PAGE	0	3	6	9	12	15					
BIBLIOGRAPHY	0	3	6	9	12	15					
GRAMMAR	0	2	4	6	8	10					
NEATNESS	0	2	4	6	8	10					

TOTAL _____

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POSTER (50 pts)

INFORMATION	0	5	10	15	20	25	30
PICTURES	0	2	4	6	8	10	
GRAMMAR	0	1	2	3	4	5	
NEATNESS	0	1	2	3	4	5	

TOTAL _____
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PRESENTATION (50 pts)

INFORMATION	0	5	10	15	20	25
VISUAL AID	0	2	4	6	8	10
VOICE	0	1	2	3	4	5
EYE CONTACT	0	1	2	3	4	5
TIME	0	1	2	3	4	5

TOTAL _____



TOTAL SCORE _____/200

FINAL GRADE _____