

GUTENBERG AND KOREAN MOVABLE TYPE

GRADES: 10

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TOPIC/THEME: Technology

TIME REQUIRED: One 40-minute class period

BACKGROUND:

Gutenberg's printing press has been praised as one of the most influential inventions in history, yet Gutenberg was not the first to use metal movable type. Seventy-eight years earlier, metal movable type was developed in Koryŏ Korea based off earlier developments from China. Though the first books printed in each respected area were religious texts, the impact on each society differed greatly: the Gutenberg printing press reduced the number of handwritten texts and has been heralded as a catalyst for such revolutionary events as the Protestant Reformation, while Koryŏ Korea's metal movable type continued to coexist with, and in some cases was out shadowed by woodblock prints and led to no major social changes.

CURRICULUM CONNECTION:

This lesson plan is designed to be taught during a unit on the European Renaissance and specifically in relation to the invention and impact of Gutenberg's printing press. The lesson will enhance cultural awareness of Europe and Korea in the 13th-15th centuries and help students understand how new technology can have differing impacts on society.

CONNECTION TO STUDENTS' LIVES:

This lesson will help exemplify how technology is only useful if a society embraces it. Connections can be made to technology that has succeeded or failed in the students' lives and help them evaluate why a technology has or has not been successful in their lifetime.

OBJECTIVES AND STANDARDS:

1. Students will identify similarities in innovations to print production in China, Korea, and Germany.
NCSS Standard: Theme II: TIME, CONTINUITY, AND CHANGE
IA History Standard: Understand historical patterns, periods of time, and the relationships among these elements.
2. Students will evaluate the impact of print production on Korea and Europe.
NCSS Standard: Theme VIII: SCIENCE, TECHNOLOGY, AND SOCIETY
IA History Standard: Understand the role of innovation on the development and interaction of societies.
3. Students will write an essay comparing the development and impact of print production on Europe and Korea.
NCSS Standard: Theme I: CULTURE AND CULTURAL DIVERSITY
IA History Standard: Understand cause and effect relationships and other historical thinking skills in order to interpret events and issues.

COMMON CORE STANDARDS:

RH 1 Cite specific textual evidence to support analysis of primary and secondary sources

RH 2 Determine the central ideas or information of a primary or secondary source

RH 3 Analyze in detail a series of events described in a text

WHST 1 Write arguments focused on discipline-specific content

WHST 2 Write informative/explanatory texts

WHST 3 Produce clear and coherent writing in which the development, organization and style are appropriate to task, purpose and audience

WHST 9 Draw evidence form informational texts to support analysis, reflection and research

SL 1 Initiate and participate effectively in a range of collaborative discussions

MATERIALS REQUIRED:

1. Photograph of the Gutenberg Printing Press to display to class, such as <http://www.flickr.com/photos/aplumb/121285772/>
2. Photograph of metal movable type from the Koryŏ Dynasty to display to class, such as <http://www.flickr.com/photos/desideratum/4460831439/>
3. Printing Press Background Article available at http://www.newworldencyclopedia.org/entry/Printing_press (class set)
4. Handout 1: Print Timeline (class set)
5. “Gutenberg and the Koreans” article available at <http://www.rightreading.com/printing/gutenberg.asia/gutenberg-asia-9-korea.htm> (class set or dependent upon reading ability)
6. Handout 2: Comparing Print Production (class set)
7. Handout 3: Rubric (class set)
8. Computer with internet access

INTRODUCTION and EXPLORATION:

1. Individually, ask students to brainstorm what technologies have had the greatest impact on their lives. Have each student compile a list of their ideas.
2. As a class, compile the ideas into one list, paying attention to which technologies are named more than once.
3. Ask students why they think these technologies were so influential. Be sure to talk about how the technology changed lives and how society benefitted from the technology.
4. Ask students if they can think of any examples of technologies that were not adopted by society or that were quickly replaced. Talk about why those technologies were not adopted or were replaced so quickly.
5. Tell the students that today they will be learning about a technology that developed in two separate parts of the world during the 13th-15th centuries but impacted each region differently.

6. Display pictures of the Gutenberg Printing Press and metal movable type from the Koryŏ Dynasty in Korea. Ask students what they know about either of these pictures. It is more likely that students have heard of the Gutenberg Printing Press, but may not know what it looks like. If students do not identify the Gutenberg Printing Press, identify it for them and ask them if they know anything about it.
7. While the pictures are still displayed, explain that the Gutenberg Printing Press was developed in Germany by Johann Gutenberg around 1440. Gutenberg's Printing Press used metal movable type to create text that was pressed onto paper. Explain that the photograph of the metal movable type is from the Koryŏ Dynasty in Korea and that the development of metal movable type predates movable type in Europe.
8. Tell students that scholars debate on whether Gutenberg could have had knowledge of Korean metal movable type or not.

PROCEDURE:

THE DELIVERY OF THE CONTENT:

1. Have students access online or pass out one copy per student of the printing press article from http://www.newworldencyclopedia.org/entry/Printing_press. Pass out one copy per student of Handout 1. Have students read the "Historical Beginnings" section of the article and create a timeline of important events in print history using Handout 1: Print Timeline.
2. In partners, have students answer the following questions while referencing their timelines:
 - a. Which region of the world, Korea or Germany, had a longer history of print production?
 - b. Why does the author argue that metal movable type was better suited to the Latin language than the Chinese language?
 - c. Which region would benefit from the mass production of metal movable type more, Korea or Germany? Explain your answer.
3. As a class, go over the previous three questions. Be sure to talk about how Korea had a longer history of print production with clay movable type and woodblock printing, how metal movable type was better adapted to a smaller alphabet as used in Latin rather than a language based on over 5000 basic characters, and that since Korea already had preexisting forms of print production that were very effective, the invention of metal movable type was not as revolutionary in Korea as it was in Germany where there were no preexisting forms of print production and all text was handwritten. In fact, while the Gutenberg Printing Press continued to spread throughout Europe, woodblock prints were preferred to metal movable type in Korea in many situations, particularly those where they wished to preserve a document since they could hold onto the woodblock print and make as many copies as they wished.
4. Depending on reading ability, have students read the "Impact of Society" portion of the printing press article available at http://www.newworldencyclopedia.org/entry/Printing_press or Thomas Christensen's "Gutenberg and the Koreans" article available at <http://www.rightreading.com/printing/gutenberg.asia/gutenberg-asia-9-korea.htm> and complete a Venn diagram comparing the similarities and differences of print production, specifically metal movable type, on Europe and Korea.

5. Have students share their answers as a class and fill in their Venn diagram with any missing information. Be sure to point out the reasons why the development of metal movable type had a different impact on each region.

THE APPLICATION OF THE CONTENT:

Have students address the following prompt in an essay. Compare and Contrast the development and impact of print production in Korea and Europe. Go over the rubric in class and then have students begin their essay. Students will need to finish this assignment as homework or the entire essay might be assigned as homework. Pass out Handout 3: Essay Rubric. Go over the rubric as a class then have students start to write a comparison essay on the development and impact of print production in Korea and Europe. Students will need to finish this assignment as homework or the lesson will need to be extended to two class periods.

ASSESSMENT:

1. Timeline
2. Comparing Print Production Chart (Venn Diagram)
3. Comparison Essay

RESOURCES:

Ch'on Hye-bong. "Typography in Korea: Birthplace of Moveable Metal Type." *Korea Journal* 3:7 (July 1963): 10–19.

"Gutenberg and the Koreans: The Invention of Movable Metal Type Printing in Korea." Rightreading.com, Presented by Thomas Christensen.
<http://www.rightreading.com/printing/gutenberg.asia/gutenberg-asia-9-korea.htm>
 (accessed August 31, 2011).

Hanbutt-Benz, Eva-Maria, "Gutenberg's Metal Type," in *Printing and Publishing Culture: Proceedings of the Third International Symposium*. Chungbuk-do, Korea: Cheongju Early Printing Museum, 2000.

Lee, Jae-jun. "Hungdok-sa Temple Site in Ch'ongju." *Koreana* 7, no. 2 (Summer 1993), 22–27.

"Printing press - New World Encyclopedia." New World Encyclopedia.
http://www.newworldencyclopedia.org/entry/Printing_press (accessed August 31, 2011).

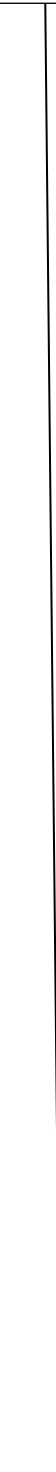
"Recording the Experience (World Treasures of the Library of Congress: Beginnings)." Library of Congress Home. <http://www.loc.gov/exhibits/world/world-record.html> (accessed August 31, 2011).

Sohn, Pow-Key. "Printing Since the 8th Century in Korea." *Koreana* 7, no. 2 (Summer 1993), 4–9.

HANDOUT 1: PRINT TIMELINE

Create a timeline of important developments in print history. Be sure to include the date, location, and development for each entry.

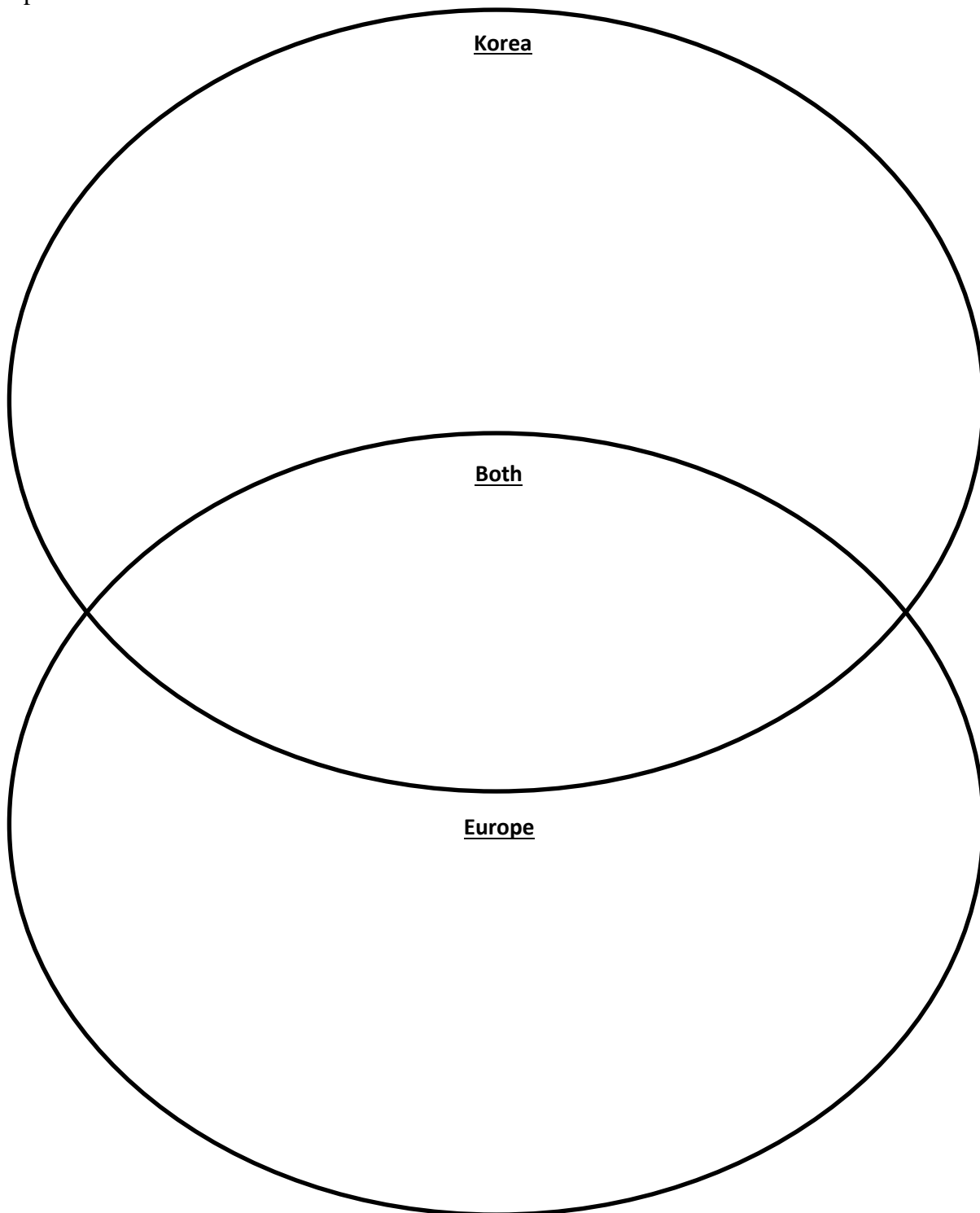
750



1450

HANDOUT 2: COMPARING PRINT PRODUCTION

Using information from “Gutenberg and the Koreans” by Thomas Christensen or “Printing Press” in the New World Encyclopedia, compare the development and impact of print production on Europe and Korea.



HANDOUT 3: COMPARISON RUBRIC

	Exemplary	Satisfactory	Unsatisfactory
Introduction/Thesis	Exceptional thesis clearly stated in the introductory paragraph. Thesis addresses both similarities and differences in the development and impact of print production in Korea and Europe	Clear thesis stated in the introductory paragraph. Thesis addresses similarities and differences in the development or impact of print production in Korea and Europe	Thesis is unclear or does not address similarities and differences in the development and/or impact of print production in Korea and/or Europe
Comparisons	Essay categorizes comparisons in at least three ways (either two similarities and one difference or two differences and one similarity).	Essay categorizes comparisons in fewer than three ways or addresses only similarities or only differences.	Essay does not categorize comparisons in a clear manner.
Evidence	Student uses ample evidence from class to support each of their comparisons.	Student uses some evidence from class to support all or most of their comparisons, but not enough to justify their claim.	Student does not use enough evidence to support their claims.
Analysis	Student analyzes at least three reasons for a similarity or difference.	Student analyzes two reasons for a similarity or difference.	Student analyzes one reason for a similarity or difference or does not analyze any reasons.
Grammar	Essay has no major grammatical errors and appears polished.	Essay has some minor grammatical errors, but appears to have been proofread.	Essay has many grammatical errors and does not appear polished.