



Chinese Writing and the Invention of Paper

9

✔ **Lesson Objectives**

Core Content Objectives

Students will:

- ✓ Locate Asia, India, and China on a map or globe
- ✓ Describe the key components of a civilization
- ✓ Describe contributions of ancient China (e.g., the invention of paper and woodblock printing)

Language Arts Objectives

The following language arts objectives are addressed in this lesson. Objectives aligning with the Common Core State Standards are noted with the corresponding standard in parentheses. Refer to the Alignment Chart for additional standards addressed in all lessons in this domain.

Students will:

- ✓ Identify that the main topic of the read-aloud is about ancient Chinese writing (RI.2.2)
- ✓ Describe the connection between the invention of paper and woodblock printing and their usefulness (RI.2.3)
- ✓ Identify that the main purpose of the read-aloud is to tell about ancient China, specifically the Chinese writing system and the invention of paper and woodblock printing (RI.2.6)
- ✓ Compare and contrast early Indian civilization with what they have learned so far about early Chinese civilization (RI.2.9)
- ✓ Compare and contrast orally Chinese writing with written English (RI.2.9)
- ✓ With assistance review information on an Early Asian Civilizations Chart to answer questions (W.2.8)
- ✓ Generate questions and gather information from multiple lessons to answer questions about ancient China (W.2.8)

- ✓ Create drawings to accompany definition and description of core vocabulary word *remarkable* (SL.2.5)
- ✓ Use irregular past tense verbs correctly in oral language exercises (L.2.1d)
- ✓ Create sentences using irregular present and past tense verbs in shared language activities (L.2.1f)
- ✓ Use sentence-level context as a clue to the meaning of multiple-meaning word *character* (L.2.4a)
- ✓ Identify real-life connections between words—*calligraphy, invention, durable, character, and remarkable*—and their use (L.2.5a)
- ✓ Identify examples of antonym—*fragile*—to core vocabulary word *durable* (L.2.5a)

Core Vocabulary

character, n. A symbol or picture used in a system of writing

Example: A smiley face is a character used to represent happiness.

Variation(s): characters

durable, adj. Strong and made to last for a very long time

Example: The Egyptian pyramids were made with durable materials so that some pyramids are still standing after thousands of years.

Variation(s): none

remarkable, adj. unusual and surprising

Example: The birth of the baby elephant was a remarkable experience at the zoo.


Variation(s): none

Vocabulary Chart for Chinese Writing and the Invention of Paper			
Core Vocabulary words are in bold . Multiple Meaning Word Activity word is <u>underlined</u> . Vocabulary Instructional Activity words have an asterisk (*). Suggested words to pre-teach are in <i>italics</i> .			
Type of Words	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday-Speech Words
Understanding	bamboo bookmaking <i>calligraphy</i> hemp	durable* <i>invention</i> materials patience remarkable* symbol system	art bone writing
Multiple Meaning	<u>character</u>	developed	block book copy paper
Phrases	Cai Lun woodblock printing	the right combination	
Cognates	bambú <i>caligrafía</i>	duradero(a)* <i>invención</i> material paciencia símbolo sistema	arte bloque copiar

Image Sequence

This is the order in which Flip Book images will be shown for this read-aloud. Preview the order of Flip Book images before teaching this lesson. Please note that it is different from the sequence used in the *Tell It Again! Read-Aloud Anthology*.

1. 9A-1: Chinese character for *person*
2. 9A-2: Chinese characters for *one, two, and three*
3. 9A-4: Chinese character for *school*
4. 9A-10: Calligraphic art
5. 9A-5: Chinese characters, cuneiform, and hieroglyphs
6. 9A-6: Writing on bone
7. 9A-7: Hemp paper and bamboo writing tool
8. 9A-8: Cai Lun making paper
9. 9A-9: Chinese printing workshop

<i>At a Glance</i>	Exercise	Materials	Minutes
<i>Introducing the Read-Aloud</i>	What Have We Learned?	Early Asian Civilizations Chart	15
	Introducing Ancient Chinese Writing		
	Vocabulary Preview: Calligraphy, Invention	examples of calligraphy	
	Purpose for Listening		
<i>Presenting the Read-Aloud</i>	Chinese Writing and the Invention of Paper		15
<i>Discussing the Read-Aloud</i>	Comprehension Questions		10
	Word Work: Durable		
 Complete Remainder of the Lesson Later in the Day			
<i>Extensions</i>	Multiple Meaning Word Activity: Character	Poster 4M (Character)	20
	Syntactic Awareness Activity: Irregular Past Tense Verbs		
	Vocabulary Instructional Activity: Remarkable	drawing paper, drawing tools	
	End-of-Lesson Check-In	Response Card 6	

Advance Preparation

For **What Have We Learned?**, prepare some review questions about early Chinese civilization based on the content from the previous lesson.

For **Vocabulary Preview**, bring in examples of Chinese and English calligraphy for students to see.

For **End-of-Lesson Check-In**, prepare questions about ancient China that students can answer by pointing to specific items on their Response Cards.



Chinese Writing and the Invention of Paper

9A

Introducing the Read-Aloud

15 minutes

What Have We Learned?

	Cities	Jobs	Leaders	Writing	Religion
Early Indian Civilization	Image Card 2 Mohenjo-daro	Image Card 1 farmers grain traders	priests Image Card 6 Asoka	Image Card 3 [check mark]	Image Card 4 Hinduism Image Card 5 Buddhism
Early Chinese Civilization	Image Card 8 [check mark]	Image Card 7 farmers traders	kings		Image Card 5 Buddhism

- Using the Early Asian Civilizations Chart, review what students have learned about early Chinese civilization. You may wish to use images 8A-2 through 8A-6 as you ask the following questions:
 - What two rivers did you learn about yesterday?
 - Yellow and Yangtze Rivers
 - What are the two nicknames for the Yellow River?
 - “Mother River” and “China’s Great Sorrow”
 - What crop is grown in the Yangtze River Valley?
 - rice
 - What kind of job did many ancient Chinese have in the river valleys?
 - farmer
 - Do you remember some farming tools the ancient Chinese invented?
 - seed drill, iron plow and harness, water pump
 - Did early Chinese civilization have cities?
 - yes
- Review the five components of a civilization at the top of the chart. Have students compare and contrast the information they have for early Indian civilization with the information they have so far about early Chinese civilization.



Introducing Ancient Chinese Writing

← Show image 9A-5: Chinese characters, cuneiform, hieroglyphs

- Ask students whether any of these writings look familiar. Invite them to make comparisons between these ancient forms of writing. You may wish to have students compare these ancient forms of writing with the English alphabet.
- Point to the Egyptian hieroglyphs. Explain that hieroglyphs were used in ancient Egyptian writing. Hieroglyphs are not used in Egypt anymore.
- Point to the Mesopotamian cuneiform. Explain that cuneiform is a very old form of writing used in Mesopotamia. Cuneiform writing is no longer used.
- Point to the Chinese characters. Explain that Chinese characters were used in ancient Chinese writing. Emphasize that Chinese characters are still being used in China today.

Vocabulary Preview

Calligraphy

1. In today's read-aloud you will hear about a special kind of art called *calligraphy*.
2. Say the word *calligraphy* with me three times.
3. Calligraphy is the art of drawing beautiful characters or letters. To draw calligraphy you use a special pen or brush and you form the letters in an elegant, beautiful, and graceful way. People who make calligraphy are called calligraphers.
4. Mr. Chin writes nice messages in calligraphy and gives them to his friends.
5. [Show students the different examples of calligraphy you have prepared. Have students discuss why calligraphy is an art and how calligraphy is different from normal writing.]

Invention

1. Today you will learn about a Chinese *invention* that changed the world.
2. Say the word *invention* with me three times.
3. An invention is something new and useful.

4. The water pump is a Chinese invention that is still used today.
5. Can you and your partner think of one invention that changed the world? [Suggested answers: light bulb, car, airplane, printer, telephone, computer. Call on several partner pairs to share.]

Purpose for Listening

Ask students what they think the purpose of this read-aloud might be. Ask them what they think they are going to learn from this read-aloud. Confirm that the main topic of this read-aloud is on ancient Chinese writing. Tell students that they will also hear about two other inventions that were very important to early Chinese civilization and the rest of the world.

By the end of this lesson, students should be able to:

- ✓ Describe contributions of ancient China (e.g., the invention of paper and woodblock printing)



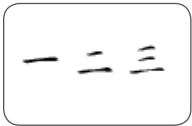
Chinese Writing and the Invention of Paper

← Show image 9A-1: Chinese character for *person*

Look at this image. What do you think it is? What do you think it says?

[Pause for student responses.]

This is the Chinese character for *person*. Or in Chinese it says *ren*. A character is a symbol or picture used in Chinese writing to represent spoken words. Each character represents a different spoken word or group of words.



← Show image 9A-2: Chinese characters for *one*, *two*, and *three*

Now, look closely at these three **characters**. If I tell you that the **character** on the very left is the Chinese **character** for the number one, can you guess what the other **characters** are?

[Pause for student responses.]

The other two **characters** are the numbers *two* and *three*. In Chinese they say *yi*, *er*, and *san*.



← Show image 9A-4: Chinese character for *school*

Can anyone guess what these characters mean?

[Point out the two parts of this Chinese word: the left side and the right side.]

Together they mean *school*. Or in Chinese it says *xiao*.

The left side means *tree*—in ancient China school was held under the trees. The right side means *communication*—meaning the talk and exchange of ideas between people. In ancient China people learned from each other under the shade of the trees.

There are over fifty-six *thousand* Chinese symbols, or **characters**, compared to the twenty-six symbols, or letters, of the English alphabet. Most Chinese use eight thousand in their everyday lives.

[Write the numbers on the board for comparison.]

It takes a lot of time, patience, and practice to learn to write Chinese **characters**.



← **Show image 9A-10: Calligraphic art**

Writing Chinese **characters** in a beautiful way is a kind of art called calligraphy. Calligraphy is the art of creating beautiful handwriting. Calligraphers—or the people who make calligraphy—use special brushes made from soft animal hair. Calligraphers dip the brush in special black ink to draw beautiful Chinese **characters** for others to enjoy. It takes a great deal of patience and practice to master—or get good at—calligraphy. You need to sit up straight, lift your elbows up off the table, hold your brush in a special way, and draw each stroke—or line of each character—in the correct order. You cannot rush; and if you make a mistake, you must start over. Do you think you have the patience to try calligraphy?



← **Show image 9A-5: Chinese characters, cuneiform, and hieroglyphs**

Some calligraphers draw the Chinese **characters** much like the way the ancient Chinese drew **characters** over three thousand years ago, similar to the Chinese writing you see in this image.

[Point to the corresponding form of writing in the image as you read about each one.]

The ancient Chinese developed Chinese **characters**.

Mesopotamia developed cuneiform.

Ancient Egypt developed hieroglyphs.

All three civilizations had writing systems, but can you guess which writing is still used today?

- Chinese characters

It is quite **remarkable**—or unusual and surprising—to think that the Chinese are still writing with many of the same **characters** that their ancestors used many, many years ago. How do we know that the Chinese writing system has survived all these years?

While plowing their fields, farmers in China found ancient Chinese writing on a most **remarkable** writing surface and gave it to archeologists to study. Can you guess what that writing surface was?

[Remind students that an archeologist is a scientist who studies the way people lived in the past. Pause for student responses.]

If you guessed paper, the first Chinese writing was not on paper. Paper had not been invented yet.



← **Show image 9A-6: Writing on bone**

Ancient Chinese writing was found on a bone. Long before paper was invented, Chinese kings wrote questions to the spirits on ox bones and on the hard underbellies of large river tortoises. Do these seem like unusual and **remarkable** things to write on to you?

Bones were not the only things that the Chinese used to write on. For thousands of years, before the invention of paper, the Chinese wrote on pottery—bowls, cups, and plates made out of clay—silk cloth, and bamboo strips. Bamboo is a tall, skinny plant with hollow stems that grows in many places in China; perhaps you have seen pictures of pandas eating bamboo. The ancient Chinese split the bamboo stem and scraped it to make a smooth writing surface for them to write on. The ancient Chinese wrote on bamboo strips for many years before the invention of paper.



← **Show image 9A-7: Hemp paper and bamboo writing tool**

The Chinese looked for ways to make writing easier. Can you guess what they invented?

[Pause for student responses.]

They invented paper!

[Note: You may wish to tell students that paper gets its name from the papyrus plant that ancient Egyptians used to make paper-like sheets. But the Chinese invented the way we make paper today.]

The first paper was made from a rope-like plant called hemp. Hemp paper was very thick and rough. In fact, hemp paper was not used originally for writing at all. Instead, it was used for things like clothing and armor for what soldiers to wear in battle to protect themselves.

Hemp paper was too rough and thick to write on, so the Chinese continued to experiment with other materials—tree bark, fishing nets, and cloth rags, to name a few. They were trying to get the right combination of materials to make a softer, smoother, and lighter writing surface.



← **Show image 9A-8: Cai Lun making paper**

Finally a Chinese man, by the name of Cai Lun, found the right combination of materials. The paper Cai Lun created pleased his emperor—or king—very much. The paper Cai Lun created was much thinner and smoother than the paper made from rough hemp fibers. Cai Lun’s **remarkable** invention changed the world and is still used today.

The softer, more **durable**, and stronger paper meant that books were easier to make, and for many years the Chinese had more books than any other country in the world. However, the Chinese style of bookmaking was not easy and took a long time. There were no machines to print the words on the paper at that time. People could not just walk into a library and check out a book like we can today.

In ancient China, each book had to be made individually—one by one—by hand. If you wanted a copy of a book, you had to copy it by hand yourself—copying each individual **character**, or symbol, from the very first page to the very last! Do you think you have the patience to try making your own book?



← **Show image 9A-9: Chinese printing workshop**

To help with bookmaking, the Chinese came up with another invention—woodblock printing. In wood block printing, text, which is a group of Chinese **characters**—was written on a thin piece of paper and glued facedown to a wooden block. Then, each **character** was carved out to make a woodblock printing plate—similar to a large stamp with many **characters** on it. A separate woodblock was created for each page of the book. If you made a mistake, you had to start all over again! Do you think you have the patience to make a woodblock printing page?

The Chinese inventions of paper and woodblock printing soon spread throughout the world.

Comprehension Questions

If students have difficulty responding to questions, reread pertinent lines of the read-aloud and/or refer to specific images. Ask students to answer in complete sentences by having them restate the question in their responses. Model answers using complete sentences as necessary.

1. *Literal* What are the main topics of today's read-aloud?
 - The main topics of today's read-aloud are Chinese characters; the invention of paper; and the invention of woodblock printing.
2. *Inferential* Did the ancient Chinese write using letters? What did the Chinese use for writing?
 - No, the ancient Chinese did not write using letters. The Chinese used Chinese characters.

Do Chinese people today still use the same kind of writing the ancient Chinese used?

 - Yes, Chinese people today still use the same kind of writing the ancient Chinese used.
3. *Literal* What is the art of drawing Chinese characters called? Can you describe what it is like?
 - The art of drawing Chinese characters is called calligraphy. Calligraphy is drawing letters and characters in an elegant and beautiful way.
4. *Literal* What important item did the Chinese invent?
 - The Chinese invented paper.
5. *Literal* Before the Chinese invented paper, on what other things did the Chinese write?
 - The Chinese wrote on ox bones, the bottom shells of tortoises, pottery, silk, and bamboo strips.
6. *Inferential* Was it easy for the ancient Chinese to get copies of books? Why or why not?
 - It was not easy for the ancient Chinese to get copies of books because each book had to be copied by hand.
7. *Literal* What Chinese invention was developed to help make copying books easier?
 - Woodblock printing was developed to help make copying of books easier.

[Please continue to model the *Think Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

I am going to ask a few questions. I will give you a minute to think about the questions, and then I will ask you to turn to your partner and discuss the questions. Finally, I will call on several of you to share what you discussed with your partner.

Sentence Frames:

Is paper/woodblock printing an important invention? (Yes/No)

These inventions are important to us today because . . .

Without _____, we would . . .

8. *Evaluative Think Pair Share:* Think about the inventions you heard about today. In the read-aloud you heard that these inventions changed the world. How are these inventions important to us today? What would life be like without these inventions?
9. After hearing today’s story and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these remaining questions.]

Word Work: Durable

1. In the read-aloud you heard, “The softer, more *durable*, and stronger paper meant that books were easier to make.”
2. Say the word *durable* with me three times.
3. *Durable* means strong and able to last for a very long time.
4. In the story, “The Three Little Pigs,” the little pig who built his home out of bricks used more durable materials than his brothers. Yue’s backpack is durable; she has been using it for two years already.
5. Do you or your family have something that is durable, or has lasted a long time without getting broken? Try to use the word *durable* when you tell about it.

[Suggested answers: raincoat, umbrella, shoes, pants, table, and car. Ask two or three students. If necessary, guide and/or rephrase the students’ responses: “I have/My family has a durable _____.”]

6. What’s the word we’ve been talking about?

Use an *Antonyms* activity for follow-up. Directions: You have heard that the word *durable* means strong and long-lasting. The word *fragile* is an antonym, or opposite, of the word *durable*. *Fragile* means delicate or easily broken. I am going to read several sentences. If I describe something that is strong and long-lasting, say, “That is durable.” If I describe something that is delicate, say, “That is fragile.”

1. a glass cup
 - That is fragile.
2. an irrigation canal made to hold a lot of water
 - That is durable.
3. bubble floating in the sky
 - That is fragile.
4. a city with stone walls.
 - That is durable.
5. the wing of a butterfly
 - That is fragile.
6. [Invite students to think of an example of something that is durable and something that is fragile. Remind students that *fragile* is the antonym—or opposite—of *durable*.]



Complete Remainder of the Lesson Later in the Day



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9_B

Extensions

20 minutes

↔ Multiple Meaning Word Activity

Context Clues: *Character*

Note: You may choose to have students hold up one or two fingers to indicate which image shows the meaning being described, or have a student walk up to the poster and point to the image being described.

1. [Show Poster 4M (Character).] In the read-aloud you saw the Chinese *character* for the word *school*. Which picture shows this?
 - one
2. *Character* also means a person who is part of a story, like Sanjay is a character in the story about Mohenjo-daro.
 - two
3. I'm going to say some sentences with the word *character*. Hold up one finger if my sentence tells about *character* in picture one; hold up two fingers if my sentence tells about *character* in picture two.
 - The emperor is the main character in the fairy tale, "The Emperor's New Clothes."
 - two
 - Who is your favorite character in "The Tiger, the Brahman, and the Jackal?"
 - two
 - We saw the Chinese character for *school* today.
 - one
 - Archeologists found a new character written on stone they have never seen before.
 - one
 - Ling will learn to write ten new Chinese characters today.
 - one

↔ Syntactic Awareness Activity

Irregular Past-Tense verbs

Note: The purpose of these syntactic activities is to help students understand the direct connection between grammatical structures and the meaning of text. These syntactic activities should be used in conjunction with the complex text presented in the read-alouds. There may be variations in the sentences created by your class. Allow for these variations, and restate students' sentences so that they are grammatical.

1. We have been talking about some verbs or action words that are *irregular*—which means not regular and different. These verbs are irregular because you do not add *-ed* to the end of the word when you are writing about an action that has happened already, and you do not add the sound /t/, /d/, or /ed/ to the end of the word when you are talking about an action that has happened already. Now I will say two sentences related to what you heard in the read-aloud about Chinese writing. One sentence talks about something that is happening now, and the other sentence talks about something that has already happened.
 - The Chinese *write* on bamboo strips.
 - The Chinese *wrote* on bamboo strips.
2. What did the verb *write* change into to show it already happened? (*wrote*) Notice I did not say *writed*; I said *wrote*.
3. Let's practice using the irregular verb *write*. I'll say something we write today, and you tell me how to say it already happened yesterday.
 1. Today, we write a letter. > Yesterday, we wrote a letter.
 2. Today, we write a story. > Yesterday, we wrote a story.
 3. Today, we write in our journals. > Yesterday, we wrote in our journals.
 4. [Invite partner pairs to come up with real-life sentences using *today/write* and *yesterday/wrote*. Tell students that the more they listen to stories and hear these irregular verbs, the more they will remember them and use them when they talk.]

4. Let's try this with another irregular verb. I will say two sentences related to what you heard in the read-aloud about the invention of paper. One sentence talks about something that is happening now, and the other sentence talks about something that has already happened.
 - The Chinese *make* paper.
 - The Chinese *made* paper.
5. What did the verb *make* change into to show it already happened? (*made*) Notice I did not say *maked*; I said *made*.
6. Let's practice using the irregular verb *make*. I'll say something we make today, and you tell me how to say it already happened yesterday.
 1. Today, we make an art project. > Yesterday, we made an art project.
 2. Today, we make a card. > Yesterday, we made a card.
 3. Today, we make our own paper. > Yesterday, we made our own paper.
 4. [Invite partner pairs to come up with real-life sentences using *today/make* and *yesterday/made*. Tell students that the more they listen to stories and hear these irregular verbs, the more they will remember them and use them when they talk.]

↔ Vocabulary Instructional Activity

Word Work: Remarkable

1. In the read-aloud you heard, "It is *remarkable* that the Chinese are still writing with many of the same characters that their ancestors used many, many years ago."
2. Say the word *remarkable* with me three times.
3. When something is remarkable that means that it is very unusual and surprising; it is something others will notice. Actions, events, people, animals, and things can be remarkable.
4. The birth of twin panda babies in the zoo is a remarkable event. Chengkai's little sister is remarkable; she could walk when she was only seven months old.
5. Can you think of a remarkable event or person? What makes that event or person remarkable?

[Ask two or three students. If necessary guide and/or rephrase the students' responses: "_____ is a remarkable event/person because . . ."]

Use a *Drawing and Sharing* activity for follow-up. Directions: Draw something remarkable. It could be someone or something doing something remarkable. It could be you doing something remarkable. When you are finished with your drawing, have your partner guess what is remarkable in your picture.

10 End-of-Lesson Check-In

Ancient China

Choose four students to focus on, and record their scores on the Tens Recording Chart. For this kind of informal observation, you should give a score of zero, five, or ten based on your evaluation of students' understanding and language use.

0	Emergent understanding and language use
5	Developing understanding and language use
10	Proficient understanding and language use

- Ask students the questions you have prepared about ancient China. Students may answer your questions by holding up their Response Cards and pointing to specific items on their Response Cards.
- You may also wish to have partner pairs ask one another questions about what they have learned about ancient China so far.
- Sample questions may include the following:
 - What are the names of the two famous rivers in China?
 - Yellow and Yangtze Rivers
 - What did many of the Chinese living in the river valleys do for a living?
 - farm
 - What are some farming inventions the Chinese made?
 - seed drill, iron plow and harness, water pump
 - What is one important Chinese invention that changed the world?
 - paper
 - What is the Chinese invention that helped to make books?
 - woodblock printing