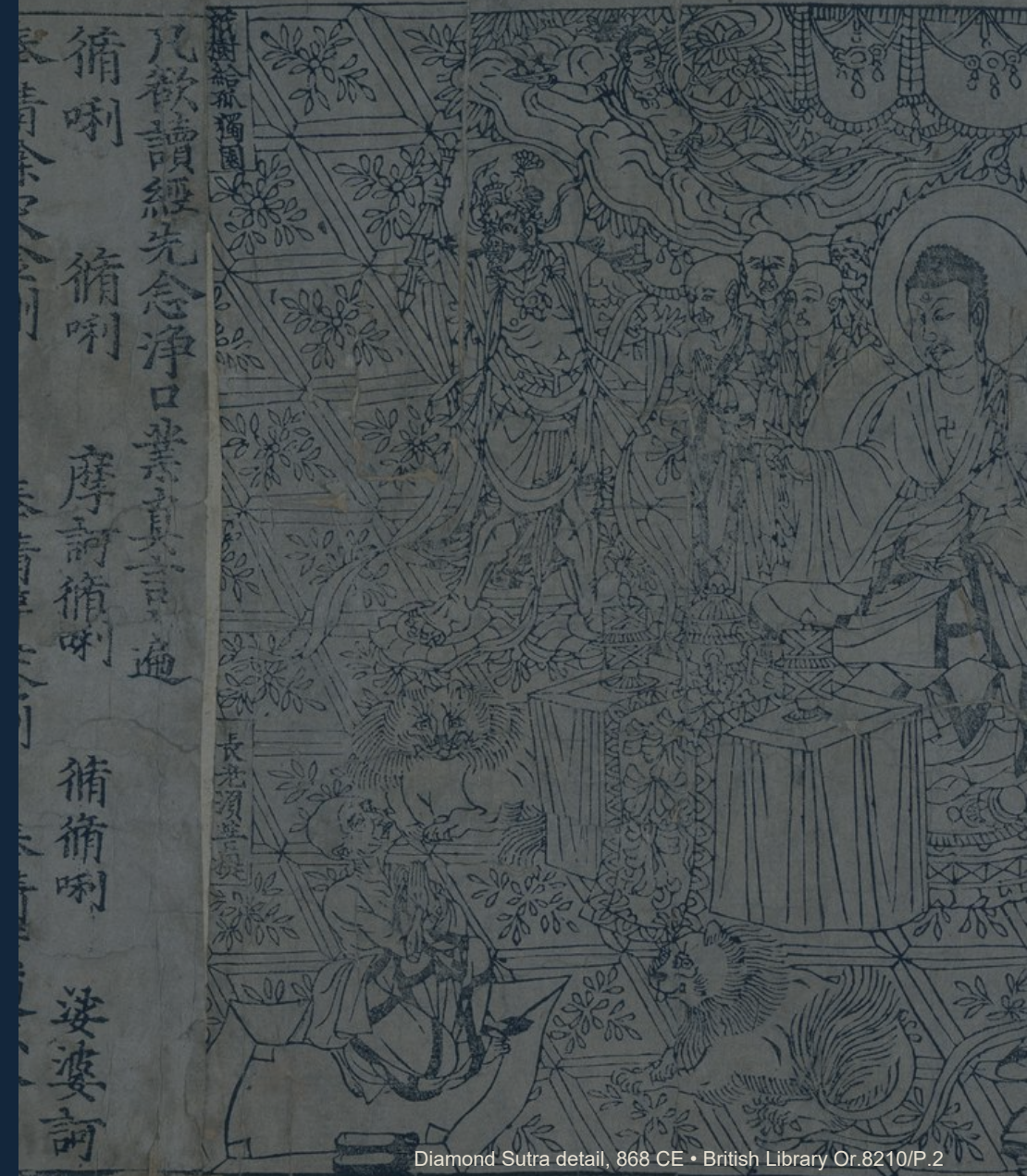


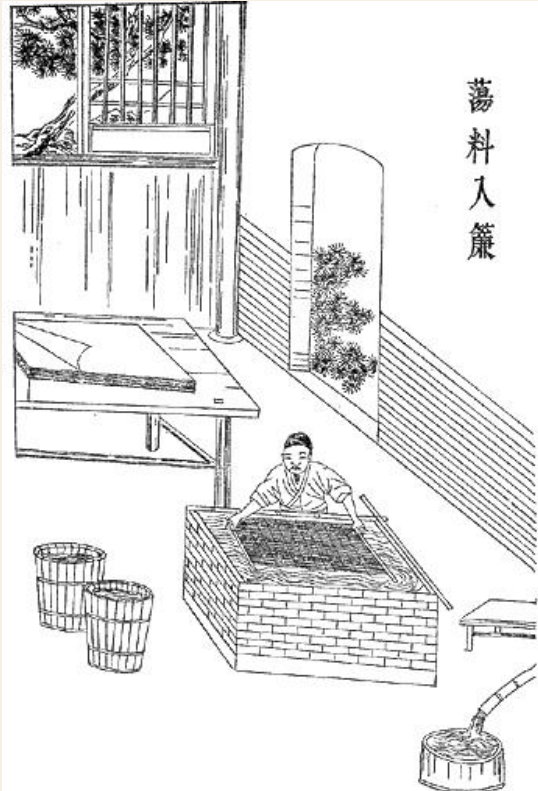
Chinese Inventions That Changed the World

How did these inventions
change people's lives?

Grades 6–7 • 60 minutes



Imagine school without paper



No paper

What becomes harder?

Point to one school task.

Think quietly.

Tell a partner.

Share one idea.

Now remove every way to copy a page.

Four inventions, four basic functions

PAPER

writing surface

before 105 CE evidence

PRINTING

copies of text and images

868 CE dated scroll

COMPASS

direction

1119 CE sea-use report

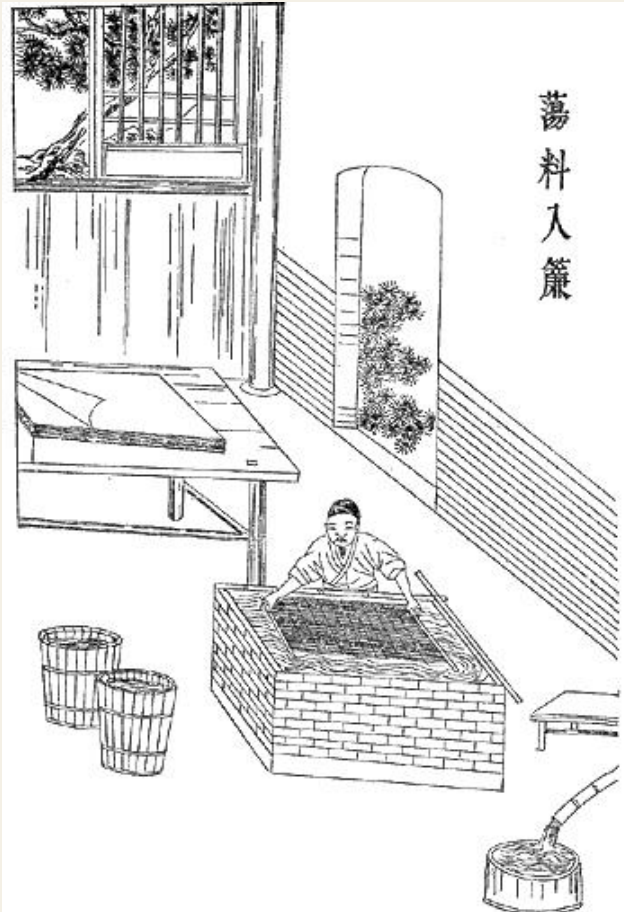
GUNPOWDER

energy for several uses

1044 CE written record

Selected evidence points — not four exact invention dates

Paper provided a surface for writing



PAPER

a surface for letters,
records, and books

Paper did not copy words by itself.

Paper existed in China before 105 CE. A court record from 105 describes Cai Lun reporting improvements in making it.

A whole-page block can repeat one page



1 carve one page

2 ink the block

3 press paper

4 lift and repeat

If the block survives, the same page can be printed again.

Movable pieces can be rearranged

PAPER

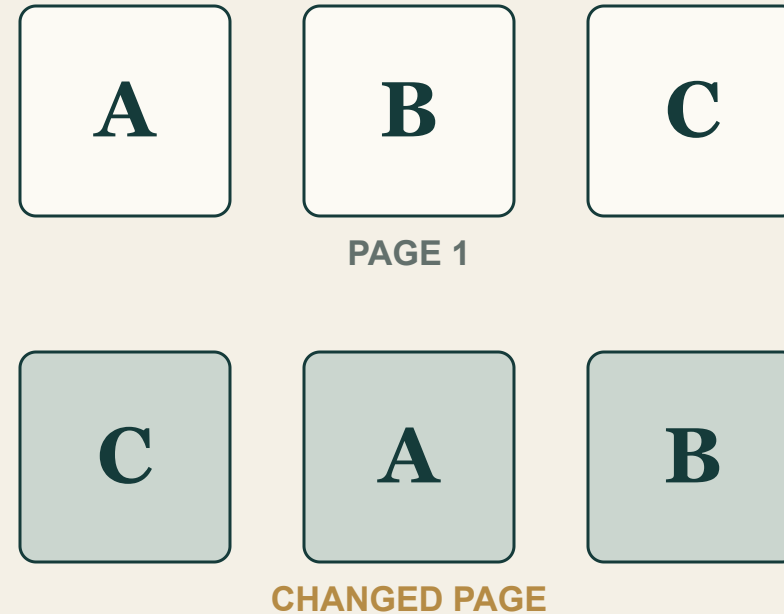
provides the surface

PRINTING

makes copies on the surface

Bi Sheng developed clay movable type in the 1000s.

The job matters: movable pieces are useful when selected text must change.



Simplified teaching model. Actual printing surfaces carry reversed characters.

A closer look at a printed object



POINT

to one visible detail.

RECORD

What can it support?

ADD

What does the catalog tell us?

Diamond Sutra, woodblock-printed scroll, 868 CE • The date is elsewhere on the scroll.

A compass gives direction

DIRECTION

What else does a sailor need?

location

weather

water depth

coast and hazard knowledge



1119 CE is an early written report of maritime use—not an invention date.

Gunpowder had different uses and effects

ENTERTAINMENT

celebration and display

WARFARE

new weapons and harm



One invention can have different uses—and different consequences.

Which printing method fits each job?

ONE GROUP TASK • STAY IN YOUR SEATS

A Same page next year

The original whole-page woodblock
was saved.

Explain the value of reuse.

B Some text must change

A model provides separate movable
pieces.

Point to what can change.

Reader • Recorder • Speaker | Read both conditions before choosing.

Scenario A — reuse the saved whole page

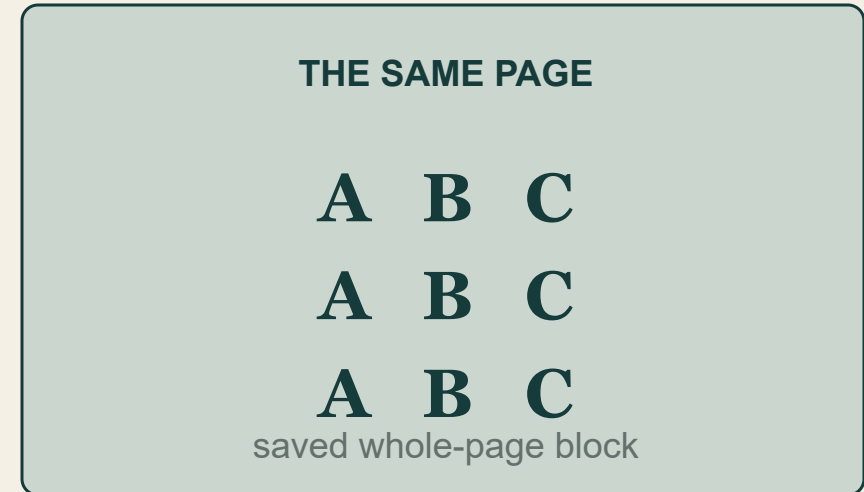
THE CONDITION

The page must be identical next year.
The original whole-page block survived.

Choose the whole-page block.

Explain why its saved arrangement is valuable for this exact repeat job.

If the page changes or the block is damaged, the condition changes.



Scenario B — change selected pieces

THE CONDITION

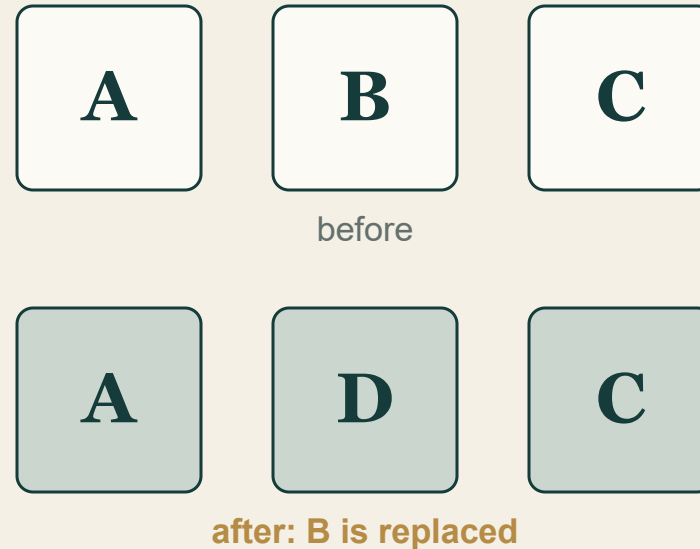
Selected text must be rearranged or replaced.

Separate movable pieces are available.

Point to the piece that changes.

Explain how separate pieces make a changed page possible.

Simplified teaching model. Actual printing surfaces carry reversed characters.



Share the condition, method, and reason

1

CONDITION

What did the job
require?

2

METHOD

Which method fits?

3

REASON

Why does it fit?

Two groups share. Everyone listens for all three parts.

Explain one change in three sentences

Write independently on H2-Q6.

CHANGE

One invention changed people's lives by ...

DETAIL

One detail shows ...

EXPLAIN

This mattered because ...

One relevant detail is enough. Connect it to the change.

Exit check — three short questions

E1 Name the basic job of two inventions.

E2 How are paper and printing different?

E3 Use one detail to explain one change.

Work independently. Hand in the quiz before the last minute.

CORE QUESTION

How did these inventions change people's lives?

Paper	record ideas
Printing	share copies
Compass	find direction
Gunpowder	create new uses and harms

Complete: These inventions changed lives by ...

Teacher reference

Keep the wording precise

- Paper existed before 105 CE.
- 868 Diamond Sutra: earliest complete dated printed book known to survive.
- 1119: an early sea-compass use report, not an invention date.
- No gunpowder recipe or construction steps.

COMPLETE FILES

Teacher Guide and Answers v2 Sources and Image Use v2

Full URLs, object dates, image licenses, answer examples, misconceptions, and language-support notes are stored there.

Slide 17 is not part of the 60-minute classroom route.