Explain Events, Procedures, and Ideas

Grade 4 Reading Worksheet - Challenge Me

Name _____ Date _____

Read the text. Circle the answer to each How question.

READ THIS FIRST

How the Printing Press Changed Books

Six hundred years ago, a book in Europe was a rare treasure. Every page was copied by hand, usually by monks or trained writers called scribes. A scribe dipped a quill pen in ink and wrote each letter carefully. Copying a long book could take months or even years. Because books took so much work, they cost a great deal. Only churches, universities and wealthy families owned more than a few.

In the 1440s, a German metalworker named Johannes Gutenberg began working on a new idea. Printing itself was not new. In China, Korea and other places, people had printed with carved wooden blocks for centuries. Korean printers had even used metal type. Gutenberg, however, combined several inventions into one system that worked quickly.

First, he made movable type. Each letter was cast as a separate small block of metal. A worker could arrange the letters into words and lines and print many pages. Then the worker could take the letters apart and use them again. Next, Gutenberg mixed an oil-based ink that stuck well to metal. Finally, he changed a screw press, the kind used to squeeze grapes and olives. The press pushed paper firmly and evenly against the inked type.

With this system, a small team could print hundreds of copies of a page in a single day. Around 1455, Gutenberg's shop finished a Bible. About 180 copies were printed, far more than a scribe could copy in a lifetime.

The effects spread quickly. Printing shops opened in city after city. By 1500, millions of books had been printed in Europe. As books became easier to make, their prices dropped. More families could afford them, so more people had reasons to learn to read.

Books also helped ideas travel. Before, a scholar's new idea might reach only the people nearby. Now the same words could be printed in many copies and sent far away. Scientists could read one another's work and build on it. Printed maps helped explorers. News sheets began to tell people about events in other places.

Printing also made texts more reliable. When scribes copied by hand, small mistakes crept in. Each copy could be a little different. Printed copies of a page were the same. A reader in Italy and a reader in England could read exactly the same words.

Gutenberg did not become rich from his invention. Still, his system changed the world. It turned books from treasures for a few into tools for many.

1. According to the text, how did printing help scientists?

- They could keep their ideas secret from others.
- They could copy books by hand more quickly.
- They no longer needed to do experiments.
- They could read one another's work and build on it.

2. How did Gutenberg make each letter of his movable type?

- He cut each one out of a thick sheet of paper.
- He cast it as a separate small block of metal.
- He carved it into a wooden block for a whole page.
- He wrote it out by hand with a quill pen and ink.

3. How did printers use the metal letters again after printing?

- They carved every letter again from fresh wood.
- They locked them in the screw press for good.
- They took the letters apart and made new words.
- They melted them all down into one large block.

4. How did Gutenberg's ink work with the metal type?

- It was thin, so it ran off the metal.
- It was made from grapes, so it dried on the type.
- It was water-based, so it washed off easily.
- It was oil-based, so it stuck well to metal.

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Answer Key - Grade 4 Reading Worksheet - Challenge Me

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