



*Art and
Culture*

Patterns of the Past

Partitioning Shapes




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Clothes with Meaning

Do your clothes show off your **culture**? Don't say no too quickly! Have you ever worn a painted shirt you made in art class? Do you like to wear clothes with the name of your favorite sports team? Do you have a school uniform? All of these outfits show your **culture**. They can help you show off your beliefs.



This boy wears loose clothes to make skateboarding easier.



girl in Western clothes



boy in business clothes

The clothes people wore long ago had meaning, too. In fact, one way to learn about the past is to look at clothing. Some clothes were only worn by kings and queens. Other clothes used patterns to mark special dates. The fabrics used can tell us more about where they came from. Clothes give glimpses into the past. And some patterns are still seen today.

These women wear a pattern that is special to them.



LET'S EXPLORE MATH

Before it is used to make clothes, fabric is usually in the shape of a rectangle. Imagine that workers divide the fabric into same-sized squares that can be used to make many items of clothing.



1. Why do you think the workers make same-sized squares?
2. The workers must complete this form to describe the fabric: *There are _____ rows and _____ columns. There are _____ total squares.* What do you suggest they write?

In the past, Chinese women wore dresses like this one to show wealth.

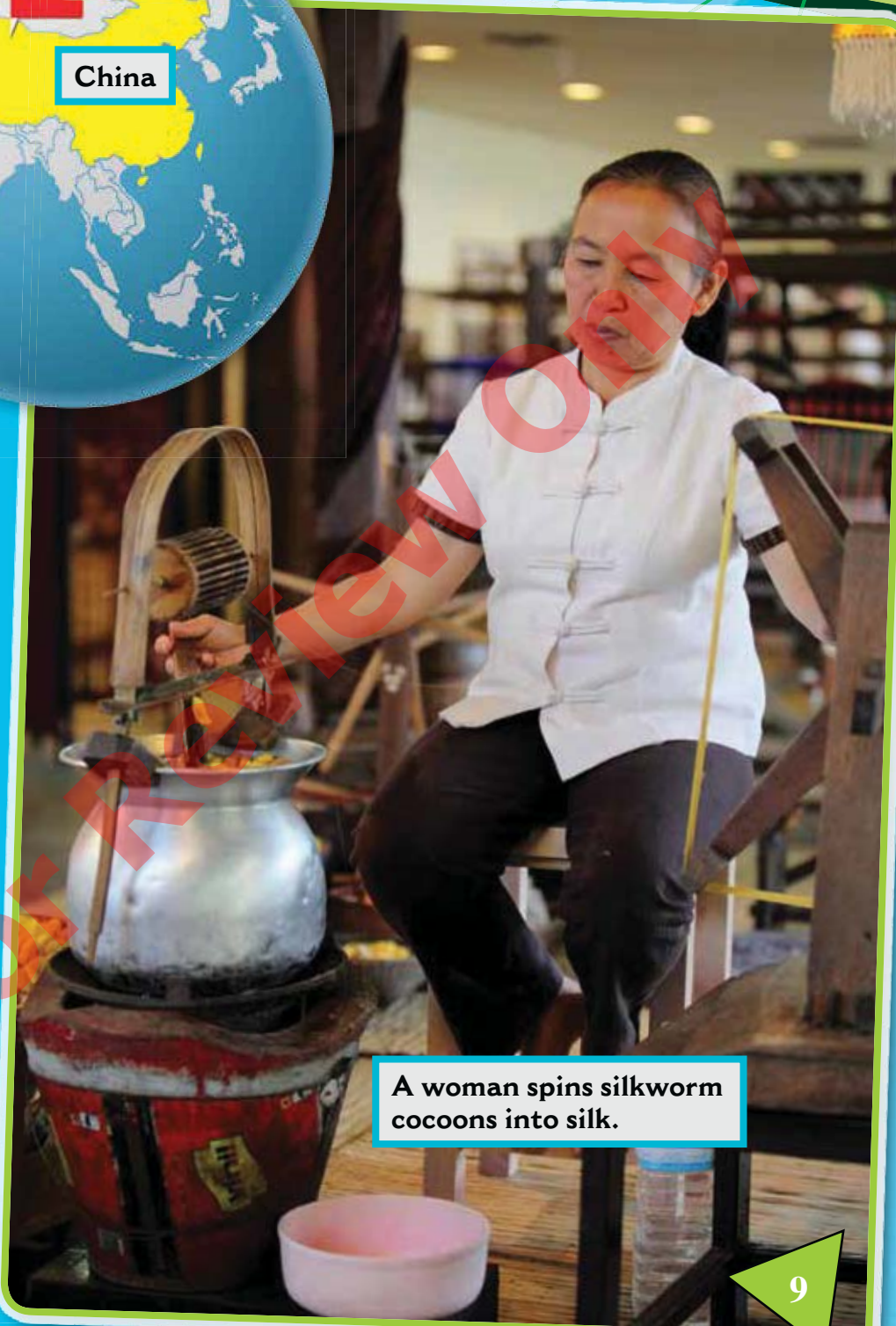




Silk

Silk was first discovered in China. It is made by silkworms that are ready to become moths. First, a worm makes a thread. Then, it uses the thread to make a **cocoon**. Silkworms' cocoons are made up of almost one mile (two kilometers) of thread! This thread can be **woven** to make fabric.

Some people say that the wife of an emperor was the first person to discover silk. One day, she was drinking tea by a tree. All of a sudden, a cocoon fell into her cup. The cocoon **unwound** into a long thread. The emperor's wife used the thread to form the first piece of silk.



A woman spins silkworm cocoons into silk.

Math Talk

1. How are rows and columns different?
2. How can you be sure that a rectangle is partitioned into same-sized squares?
3. Brady partitions a rectangle into 3 rows and 5 columns. Leon partitions a rectangle into 5 rows and 3 columns. How is their work similar and different?
4. How can skip counting help you efficiently find the total number of squares in a rectangle?
5. Kali says all rectangles can be partitioned into smaller squares. Do you agree or disagree with her reasoning? Why?
6. How might batik artists partition shapes to make new designs?