

## A Knotty Problem

How do you figure out a language written in knots? College student Manny Madrano has some ideas. Manny spent his spring break studying knotted strings from the Inca Empire.

The strings are called khipus. They are the only records left behind by the Incas. Historians haven't been able to crack the code of the khipus. But Manny wanted to try.

The Incas ruled Peru in the 1400s and 1500s. They were the largest society in the Americas. They built Machu Picchu, a fortress high in the mountains. But they left no written records.

Most of the information we have about the Incas comes from the Spanish conquerors. The history is told from a Spanish point of view. Historians wanted to learn what the Incas thought. They needed to solve the problem of the knots.

One historian, Gary Urton, looked at over 900 khipus. He wrote down the numbers of knots, lengths of the strings, and colors of the fibers. He put all the information into a computer database.

Computer data is a favorite subject for Manny. He is studying economics. He likes to make graphs and solve puzzles. When he heard about Gary's project, he offered to help.



Gary and Manny noticed a connection between dates in Spanish records and knots on six of the khipus. Manny spent his spring break looking at the connection more closely. He spoke Spanish, so it was easy for him to read the records. He used his talent with puzzles to look for patterns.

Manny discovered that the way the strings were tied represented social status. The colors were related to names. Other historians say his findings are a big deal.

Manny and Gary are publishing an article about their discoveries next year. Their research could help decode hundreds of other khipus. Manny has helped to understand the Incas from their own point of view.



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NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

1. How did the Incas record their history?
  - a. In written documents
  - b. At Machu Picchu
  - c. With knotted strings
  - d. In Spanish
  
2. What subject is Manny studying in college?
  - a. Spanish
  - b. Economics
  - c. History
  - d. Computer Science
  
3. Which of the following is NOT mentioned as being recorded in the khipu database?
  - a. Colors of the fibers
  - b. Numbers of the knots
  - c. Lengths of the strings
  - d. Names of the Incas
  
4. Which of the following is MOST likely the reason why Manny wanted to work on the knot project?
  - a. He liked puzzles
  - b. He liked computer data
  - c. He wanted to see history from the Incan point of view
  - d. All of the above

Instructions for teachers:

These questions can be used to assess understanding of the reading passage.

The item in bold is the correct answer for each question.

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