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NATIVE AMERICAN HERITAGE MONTH

Tara Astigarraga

Engineer, Inventor, and Citizen of the Choctaw Nation

An Inventor With More Than 70 Patents

Tara Astigarraga is a citizen of the Choctaw Nation of Oklahoma. She was born and raised in Arizona. At the University of Arizona she studied Spanish and communication. She thought she might become a bilingual teacher or a social worker.

Then, in her last year of college, she took an **internship** at IBM in Tucson, Arizona. IBM builds computers and the systems that store huge amounts of information. Tara discovered she loved solving computer problems, and IBM hired her full-time after she graduated.

Tara became an **inventor**. Her first **patent**, in 2008, was for a way to predict when a computer's flash memory is about to wear out, so information can be saved before it is lost. Since then she has earned more than 70 patents for ideas about storing data, connecting computers in networks, and keeping information secure. IBM named her a Master Inventor and a Distinguished Engineer, two of its highest honors.

Tara also mentors young people, especially Native American students and girls, to help them see that they belong in technology.

WORDS TO KNOW

- **inventor:** A person who creates a new machine, tool, or way of doing something.
- **patent:** An official document that says you invented something new, so others cannot copy it without asking.
- **internship:** A short job where a student learns by working alongside experienced people.

Part 1 • Reading Comprehension

1. What did Tara study in college, and what job did she first think she might have?

2. How did Tara get started working with computers?

3. What problem did Tara's first patent help solve?

4. Name two areas that Tara's patents are about.

Part 2 • Inventor's Challenge: Write Your Own Patent Idea

A patent describes a problem and a new way to solve it. Tara's first patent solved the problem of losing information when memory wears out. Now it is your turn to think like an inventor.

1 Name a problem you have with technology at home or at school.

2 Describe your invention. How would it solve that problem?

3 Give your invention a name, and draw a quick sketch of it in the box.

Part 3 • Think About It

Tara studied Spanish and communication, not computer science, and she still became one of IBM's top inventors. How could skills like language and communication help an engineer?

