

# WOMEN IN STEM

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**REINA MARUYAMA**

**What's the Matter with the Universe?**

What is the Universe made of? Why is there more matter than anti-matter? Yale Professor Maruyama carries out cutting-edge experiments on neutrinos and dark matter to find answers to these questions.

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## CONCEPTS AND CONNECTIONS

By studying neutrinos and dark matter, **Reina Maruyama** hopes to discover how the early universe formed. Studying in science requires objectivity.

People often make assumptions, without even recognizing it. For example, when we assume that someone possesses or lacks particular traits based on their appearance or even their name, we are letting bias overtake our objectivity.

### Did you know?

A study from 2011 in Toronto noted that resumes submitted with Asian-sounding names like “Samir Sharma” and “Lei Li” were 28% less likely to get a call for a job interview than people with British-sounding names like “Greg Johnson” or “Emily Brown”<sup>1</sup>.

Grades 4-6	Grades 6-8	Grades 9+
<p><b>Implicit bias:</b> the automatic assumptions and conclusions that we make based on appearance.</p> <p>Think about popular movies and television shows – are men portrayed differently than women?</p> <p>Where could bias have an impact in what people think about others? Is it negative or positive?</p>	<p><b>Implicit bias:</b> the automatic assumptions and conclusions that we make based on appearance.</p> <p>Where could bias have an impact in what people think about others? Is it negative or positive?</p> <p>What are different forms of bias? Can you think of how bias could affect people who pursue STEM careers?</p>	<p><b>Implicit bias:</b> the automatic assumptions and conclusions that we make based on appearance.</p> <p>What are different forms of bias? Can you think of how bias could affect people in STEM careers?</p> <p>What sorts of biases do you think people have for women and their abilities in STEM?</p>

<sup>1</sup> **References:** Banerjee, Rupa, Reitz, Jeffrey & Oreopoulos, Phil (2017). Do Large Employers Treat Racial Minorities More Fairly? Ryerson University & University of Toronto