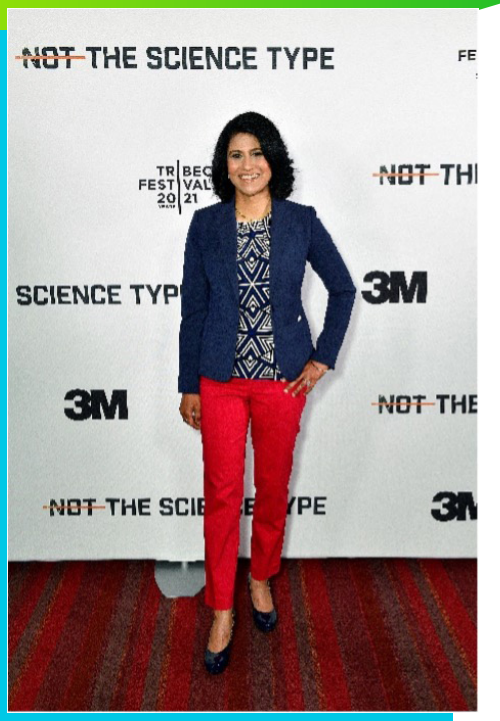
3M Science. Applied to Life.™

What Does a Scientist Look Like Anyway?



Dr. Jayshree Seth

Chief Science Advocate

Dr. Seths' journey to reaching the highest level of corporate scientist and being appointed the first ever Chief Science Advocate at 3M, was not a linear one. It required resilience, intuition and a deep commitment to the process of uncovering her unique contribution to the field of science. Jayshree Seth was positioned by her parents and the remarkable example of her forefathers, on a path towards excellence in education. However, when she did not get accepted into the premier engineering institute in her hometown in India, she was not deterred. The resilience and courage that Dr. Seth showed early in life would come in quite useful as she navigated her career and searched for the place where her passion and deep interest in the humanities intersected with her technical expertise in engineering. Accepting a position in 3M's product innovation lab working on fasteners and closures for diapers gave Jayshree that initial opportunity to focus on the human experience and become a trailblazer in the field.

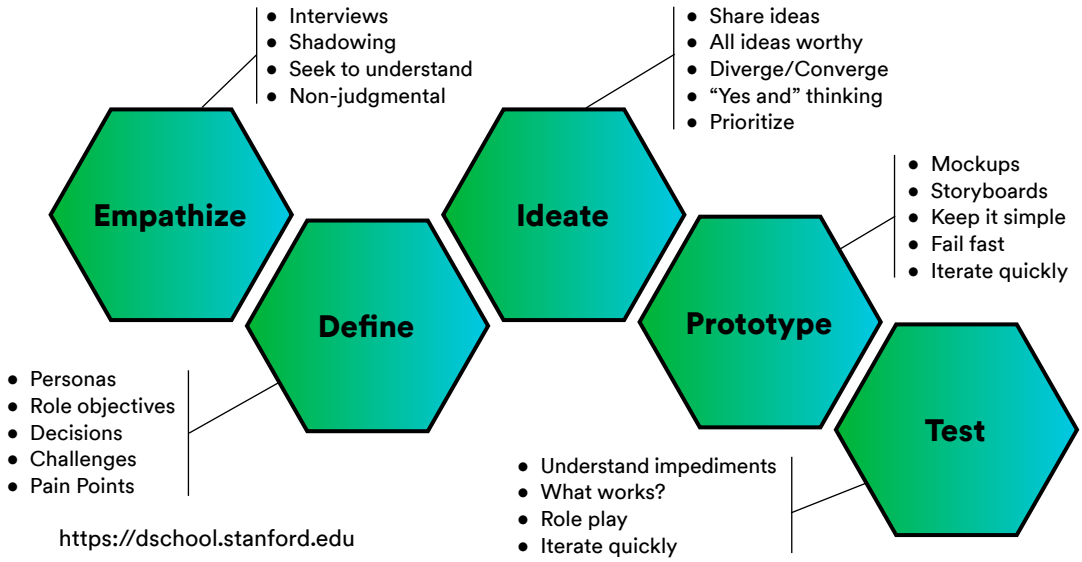
The work that Dr. Seth does at 3M, draws from an inclusive user centered design thinking approach out of Stanford University, that is used in fields from business to the classroom.

Each year, 3M's State of Science index explores global attitudes about science. Here are just a few findings unearthed about STEM equity from this year:

87% believe we need to do more to encourage and retain girls in STEM education

70% believe there are negative consequences to society if the STEM community fails to attract more women to STEM careers

Stanford School Design Thinking Process



Directions for Classroom Discussion: Students at any age can engage in Design Thinking as an approach to engaging in constructivist problem solving. It centers on a pedagogy aimed at creating and facilitating future innovators and breakthrough thinkers. It is about creating creative and collaborative workflows engineered to tackle big projects and prototyping to discover new solutions to problems that matter most to students and their communities. This process undergirds Computational Thinking skills, useful across all content areas.

Pedagogical Approach	Classroom Activities & Directions
Discussion Prompt 1:	When was the last time you had your heart set on an outcome and it didn't happen? What did that feel like? What did you do next? The next time that happens, how will you be better prepared to be nimble and pursue alternatives? How does Dr. Seth demonstrate this throughout her journey?
Discussion Prompt 2:	What are your parents/families plans for your future? How do those goals align or mis-align with your own interests and passions? Consider for a moment where there may be opportunity for those two ideas to intersect in ways that help you to gain clarity on your purpose.
Elementary Grades Design Thinking Project Ideas **More ideas at** www.createdu.org	• Redesign the cafeteria to meet the needs of multiple groups with social distancing • Conduct empathy interviews with families to to inform the perfect holiday gifts • Create a recycling program for the school campus • Improve the structure and flow of virtual learning
Secondary Grades Design Thinking Project Ideas **More ideas at** http://www.talenteducation.eu/toolkitforteachers/design-thinking/projects/	• Design an app to help people as they age plan out events on their bucket list or connect with young people who need mentorship • Design a collaborative program to support working parents needs during summer break • Design a solar grid to reduce electricity costs and create more sustainable energy sources • Design a solution to reliable internet access for remote learning in rural areas
Additional Resources	• Design Thinking in Schools: Building Creative Confidence • Design Thinking for Educators Toolkit from IDEO • 45 Design Thinking Resources for Teachers