

# Neuroscience & the Classroom: *Making Connections*

## Course Overview:

Current research in neuroscience is fostering a vibrant dialogue between classroom professionals and scientists who study the brain. In this course, teachers discover advances in brain imaging and laboratory science that inform teaching, and neuroscientists reveal how teachers' challenges and expertise are the impetus for new avenues of research.



**This course is designed for both pre-service and in-service teachers who are interested in:**

- The latest research on how the brain works
- Exploring new solutions to problems encountered in the classroom
- Reigniting their passion for teaching by exploring new ideas about learning
- Refining their understanding of what it means to learn and the important role teachers play in encouraging that process



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## About this Course

No one cares more deeply and immediately about the success of students than teachers, who are constantly thinking about and observing students, drawing conclusions, and working on new strategies to improve student outcomes. Neuroscientists are in a rapidly-advancing field that is constantly developing new insights into how human brains learn and develop. This course is one response to the new dialogue that is developing between neuroscientists and K-12 educators about topics of shared importance to both professions. This on-line course will discuss new findings in mind, brain, and education in the context of how these findings are relevant to classrooms at all levels and in all disciplines. Ideas such as the plasticity of neural networks, how the brain recruits different regions to accomplish different tasks, the role of feelings and emotions in cognition, learning differences, and the dynamic nature of learning, will be covered. The course is funded by Annenberg Learner and will be distributed through their website ([www.learner.org](http://www.learner.org)).



Guilherme Brockington researches galvanic skin response.



A discussion between teachers and researchers.

## Course Developers



Dr. Mary Helen Immordino-Yang, University of Southern California, is a cognitive neuroscientist and educational psychologist who studies the brain bases of emotion, social interaction, and culture and their implications for development and schools.










Dr. Kurt Fischer, Harvard University, studies cognitive and emotional development and learning from birth through adulthood, combining analysis of the commonalities across people with the diversity of pathways of learning and development.



Dr. Matthew H. Schneps, Harvard-Smithsonian Center for Astrophysics, has diverse research interests that include astrophysics, cognition and learning, science education, learning disabilities and dyslexia, television media, eye-tracking and vision, computer image processing, and K-12 science learning.

## Course Components

-  Online Textbook
-  Videos
-  Interactives
-  Visuals
-  Glossary
-  Facilitator's Guide
-  Resources