



Object Lesson

Researchers in the laboratory of Doris Tsao (BS '96), professor of biology and director of the Tianqiao and Chrissy Chen Center for Systems Neuroscience, combined tools from machine learning and neuroscience to discover that the brain uses a mathematical system to organize visual objects. The work revealed that the brain contains a 2-D map of cells representing different objects. The location of each cell in this map is determined by the principal components of its preferred objects; for example, cells that respond to round, curvy objects like faces and apples are grouped together, while cells that respond to spiky objects like spiders and airplanes form another group.

Find out more at magazine.caltech.edu/post/object-lesson