



Baby steps:

Inside the
developing
brain

AT ONE OF PRINCETON'S NEWEST RESEARCH LABS, the T-shirts only go up to 4T, the art on the walls is done in crayon and the books on the shelves include *The Little Mermaid*.

Researchers at the Princeton Baby Lab study how babies and young children learn to see, talk and understand the world. The lab, located in the Department of Psychology's Peretsman Scully Hall, opened this summer and is co-directed by two new additions to the Princeton faculty, assistant professors of psychology Lauren Emberson and Casey Lew-Williams.

Emberson investigates how experience supports learning and early development. She focuses on the development of perceptual abilities such as vision, hearing and multisensory perception. She often uses neuroimaging techniques that let researchers see infants' brains change as they learn and develop.

"How infants are using their experiences to develop is a huge mystery," Emberson said. "We're examining how babies are developing expectations about the world and shape their neural activity almost in real time."

Lew-Williams examines how babies and young children learn language. His research subjects include children growing up in poverty and children with communication disorders. His studies often involve children listening to language, looking at pictures and watching short videos as researchers track their eye movements.

"The most fundamental, basic science questions I'm interested in are what is learning, how does it happen and how does it happen differently for different children?" Lew-Williams said. "To me, language is a great way to investigate this because language is such an important skill. How does language learning get off the ground in infancy?" **—By Michael Hotchkiss**