

Chorus of neurons, singing together transfers messages in the brain

When a cartoon character gets an idea, you know it. A lightbulb goes on over Wile E. Coyote's head, or a ding sounds as Goofy puts two and two together.

While the lightbulb and sound effects are the stuff of cartoons, scientists can, in a way, watch learning in action. In a new study, a learning task in rats was linked to increases in activity patterns in groups of brain cells. The results might help scientists pin down what learning looks like at the nerve cell level, and give us a clue about how memories are made.

Different areas of the brain communicate with each other, transferring information from one area to another for processing and interpretation. Brain cell meets brain cell at connections called synapses. But to transfer information between areas often takes more than one neuron firing a lonely signal.

It takes cortical oscillations — networks of brain cells sending electrical signals in concert — over and over again for a message to transmit from one brain area to another. Changes in electrical fields increase the probability that neurons in a population will fire. These cortical oscillations are like a large crowd chanting.

Read the full, original story: [Neurons pull together as a brain learns](#)