




How the Brain Learns:

A Brief Overview for Students

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Question of the Day?

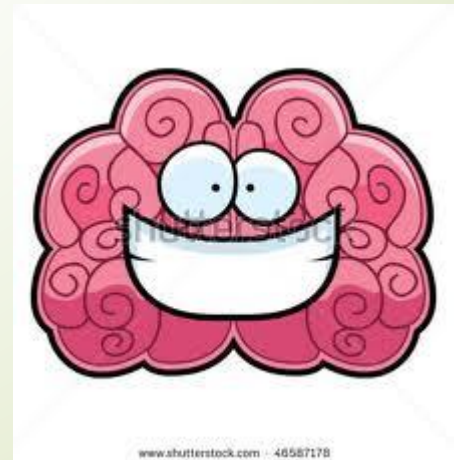
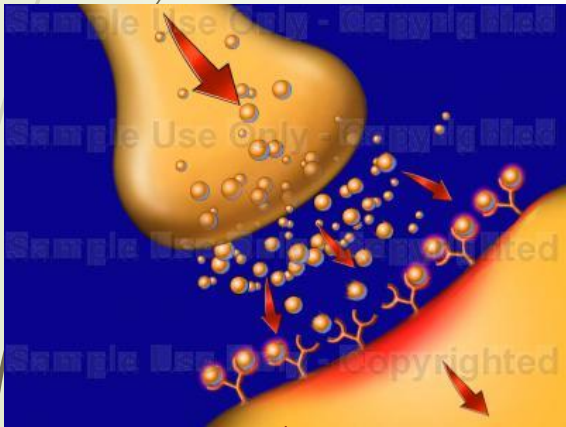
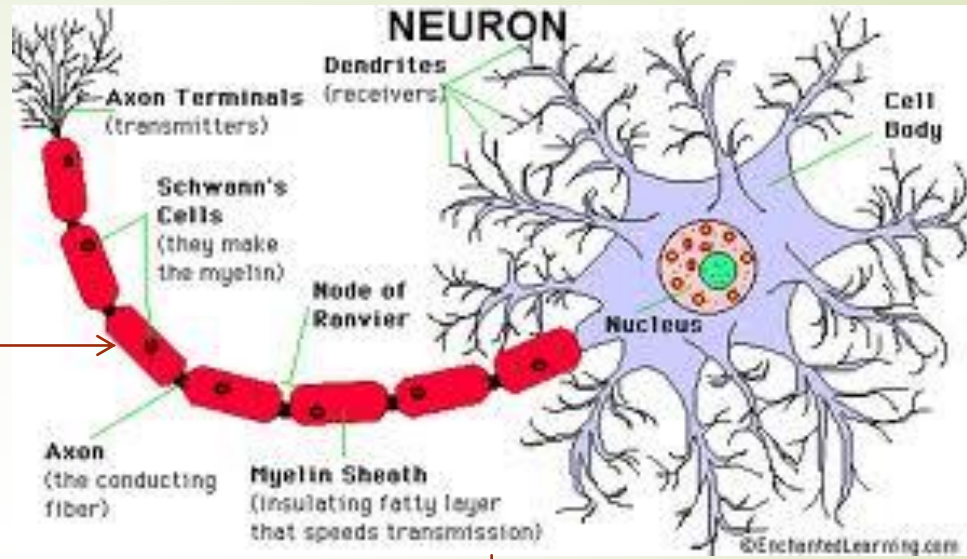


What does a Tree, Waterslide and Airport have to do with the way you learn??



The Garage Door of the Brain: The Limbic System

- Am I Safe?
- Is this interesting or relevant?
- What should I pay attention to?

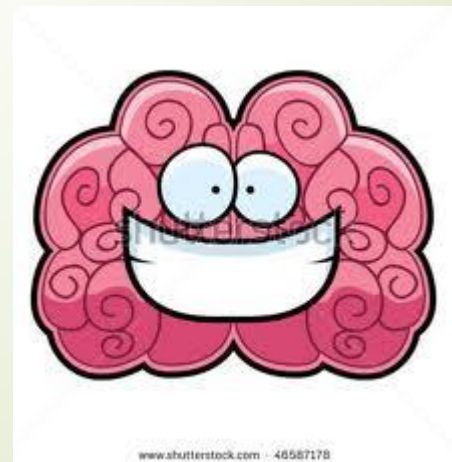
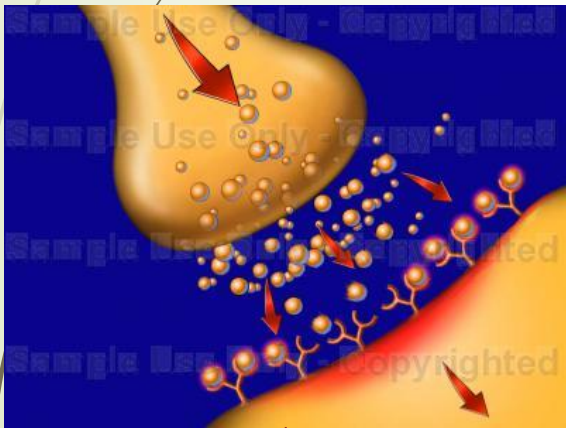
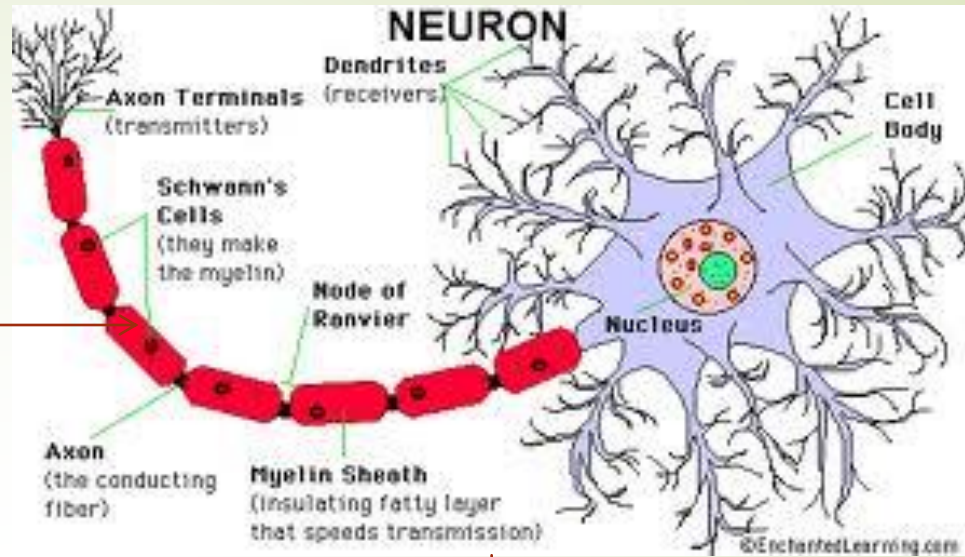


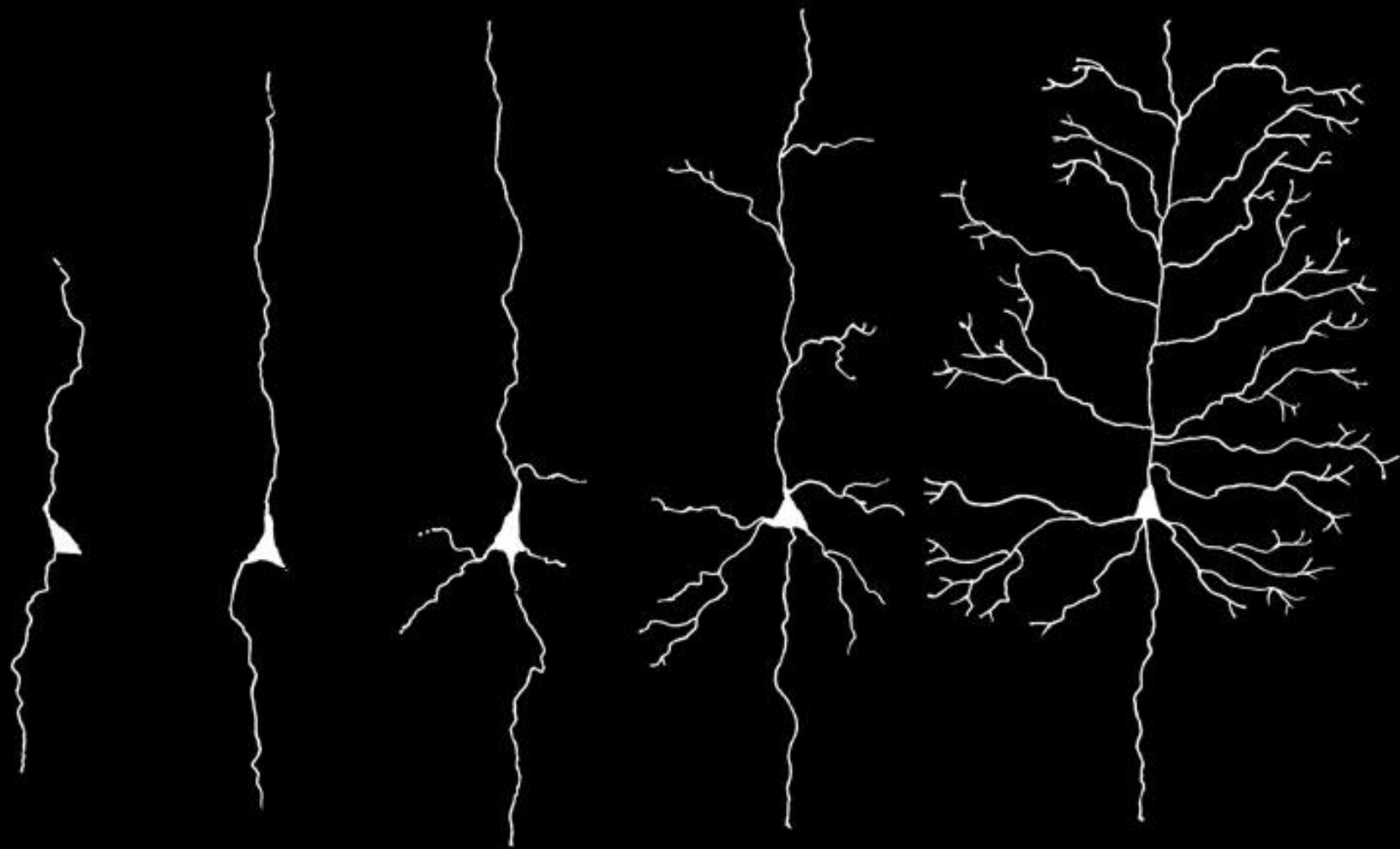


Little Prior Knowledge or Practice



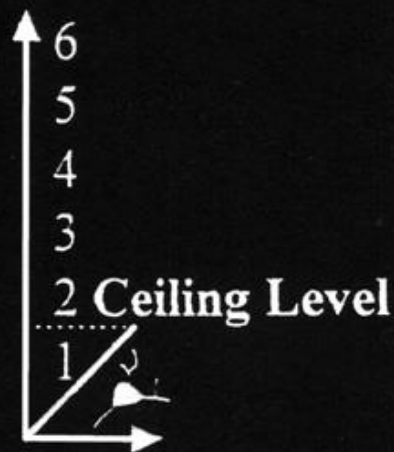
LOTS of prior knowledge and practice!





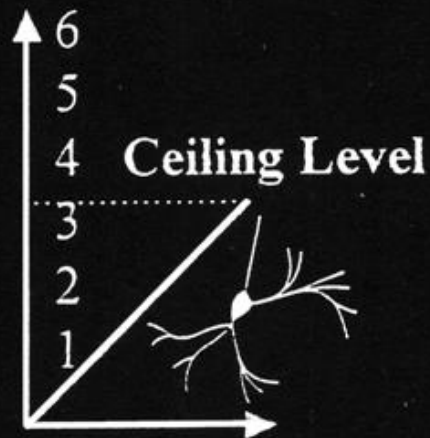
Growing Dendrites = Learning

Knowledge and Ceiling Level Increase with Neural Network Growth



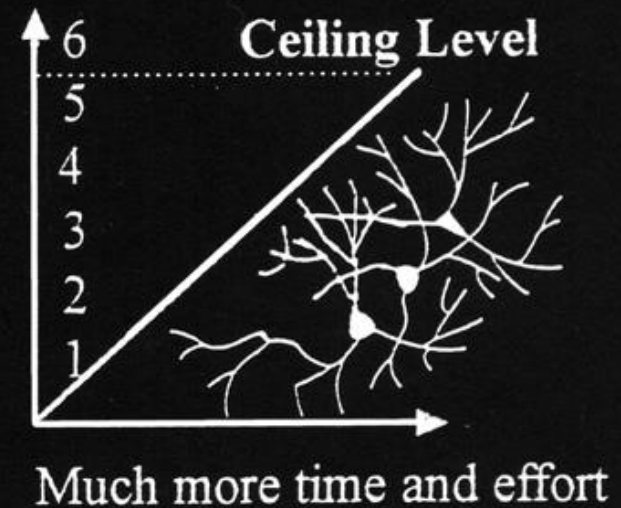
Little time and effort

Low ceiling level



More time and effort

Medium ceiling level



Much more time and effort

High ceiling level

The Airport Analogy:



Retrieved from theplaneid.com



Retrieved from vimeo.com



Retrieved from photolibrary.usap.gov



Ticket Out

1. Write a reflection on your notecard:

Possible Topics:

- What new information did you learn today?
- What might you do next with what you've learned?
- What other questions do I have?

Citations/Resources

- *Encouraging metacognition: Supporting learners through metacognitive teaching strategies*; Patricia Liotta Kolencik & Sheila Hillwig.
- *Faculty development with Chris Jernstedt*
- *Student engagement techniques: A handbook for college faculty*; Elizabeth Barkley.
- *Understanding how the brain naturally learns*; Rita Smilkstein,
<http://www.borntolearn.net>
- *How the brain learns best: Strategies that make learning stick*; Free webinar by Edutopia featuring Judy Willis (neuroscientist turned teacher)
- <http://www.youtube.com/watch?v=eMZnfFD1maU>
- <http://www.mindmapping.com>
- http://www.brainwaves.com/brain_information.html
- <http://www.edpsycinteractive.org/topics/cognition/infoproc.html>
- **Big Questions, Worthy Dreams: Mentoring Emerging Adults in Their Search for Meaning, Purpose, and Faith** by Sharon Daloz Parks.