I. Importance of Learning
What are the costs and benefits of learning?

Why is learning particularly important for building human brains?

II. Normal Learning
How is adaptation a form of learning?

What do James’s & Doolittle’s images tell us about the amount of experience we need for some types of visual learning?

How do parts of the temporal lobe change when a human or monkey learns to recognize a new object?
III. How much Experience is Necessary for Vision?
What visual capacities do infants have after very little visual experience?

What was SB’s vision like when it was restored after being blind for all of his life?

What is a developmental “critical period”?

What happens to orientation selective cells in V1 when cats are deprived of vision or selectively exposed to gratings of only one orientation?
IV. How does the brain adapt to sensory deprivation/distortion?
According to fMRI, what happens to the function of visual cortex when someone is deprived of sight (even for just a short time)?

What does transcranial magnetic stimulation (TMS) do and how is it useful for studying brain function? How does it compare to creating real lesions (i.e., what are the pros and cons of the two methods for disrupting brain function)?

What additional evidence did TMS provide for the function of visual cortex in people who have been deprived of sight?

What is a “tongue-display unit”? How did the function of visual cortex change in blind and sighted individuals after learning to use the tongue-display unit?
Taken as a whole, what do the studies of Braille reading and the tongue-display unit on blind and sighted individuals tells us about the ability of visual cortex to adopt a tactile function?

What happens to people who wear prisms that distort the orientation or location of their visual field?

Where in the brain does the adaptation to horizontal displacement occur? Is it (strictly speaking) a sensory adaptation?