Chapter 7, 8, 9

I. Front Page (200)
   A. Laura Bickford
      a. Master teacher
      b. Nordoff High School

II. The Information Processing Approach to Development (201)
   A. Shares basic characteristic with theories of cognitive development
   B. Focuses on how children think
   C. Analyzes how children manipulate information, monitor it, and create strategies for handling it.
   D. Computer Metaphor
      a. Children’s memory is limited by capacity and speed

III. Cognitive Resources: Capacity and Speed of Processing Information
   A. Developmental changes in information processing are likely influenced by increases in both capacity and speed of processing
   B. Cognitive resources
   C. Both biology and experience contribute to growth in cognitive resources
   D. Biological developments occur in brain structures and at the level of neurons
   E. The speed with which children can articulate a series of words affects how many words they can remember
   F. Reaction-Time-Task (202)
      a. Push a button as soon as they see a stimulus such as light

IV. Mechanism of Change (202)
   A. Robert Siegler
      a. Encoding
         i. Process by which information gets into memory
            1. Letter shape - cursive versus print being the same letter
      b. Automaticity
         i. Refers to the ability to process information with little or no effort
            1. Once learn to read they don’t think of each word as letters
      c. Strategy Construction
         i. Creation of new procedures for processing information
      d. Metacognition
         i. Knowing about knowing

V. Comparisons with Piaget's Theory (203)
   A. Piaget
      a. Children construct their knowledge and understanding of the world
      b. Thinking develops in distinct stages
   B. Information Processing Approach
      a. Some versions are constructivist
      b. Children direct own cognitive development
      c. Do not see development as occurring abruptly in distinct stages with a brief transition period
      d. Individuals develop a gradually increasing capacity to process information, which allows them to acquire increasingly complex knowledge and skills
      e. Focuses on more precise analysis of change an on the contributions made by ongoing activity

VI. What is Attention (204)
   A. Attention: the focusing of mental resources
      a. Improves cognitive processing
XXXV. Front Page (259)
   A. Helen Keller

XXXVI. Defining Language (260)
   A. Language: form of communication – whether spoken, written, or signed – that is based on a system of symbols
   B. Infinite generativity: is the ability to produce an endless number of meaningful sentences using a finite set of words and rules

XXXVII. Language’s Rule Systems
   A. Ralph Waldo Emerson
   B. Organization of language involves five systems
      a. Phonology: is the sound system of a language, including the sound that are used and how they may be combined
         i. Phoneme: is the basic unit of sound in a language; it is the smallest unit of sound that affects meaning
      b. Morphology: the rule system that governs how words are form in a language
         i. Morpheme: is a minimal unit of meaning; it is a words or part of a word that cannot be broken into smaller meaningful parts
      c. Syntax: involves the way words are combined to form acceptable phrases and sentences
         i. Often used interchangeably with the term grammar
      d. Semantics: refers to the meaning of words and sentences
         i. Girl and women
      e. Pragmatics: the appropriate use of language in different contexts
         i. Thank you

XXXVIII. Infancy
   A. Babbling and Other Vocalizations
      a. Practice making sounds, to communicate, and to attract attention
      b. Sequence
         i. Crying
         ii. Cooing
         iii. Babbling
      c. Deaf infants
         i. Babble with their hands
   B. Gestures (264)
      a. Showing and pointing at 8 months to 12 months
   C. Recognizing Language Sounds
      a. Long before they begin to learn words infants can make fine distinctions among the sounds of the language
      b. Patricia Kuhl
         i. Research, phonemes from languages all over the world are piped through a speaker for infants to hear
      c. Infants must fish out individual words from the nonstop stream of sound that makes up ordinary speech
   D. First Words
      a. Infants understand words before they can produce or speak them
      b. First word
         i. 10-15 month
         ii. Important people
         iii. Familiar animals
         iv. Vehicles
         v. Toys