Chapter 2 Notes

1. Swingers to Walkers (23-3m ya)

- **Early Apes (23 million years ago)**
  - Perfectly adapted for forest life with long arms, curved fingers, flexible shoulders
  - Forward-facing eyes to judge jumping distances
- **Climate Change Challenge (10 million years ago)**
  - Earth cooled, forests shrank, savannas grew
  - Some apes ventured into open grasslands
- **Walking Upright (7 million years ago)**
  - First "hominins" stood on two legs
  - Advantages: seeing over tall grass, traveling longer distances, keeping cooler, freeing hands
- **Notable Early Hominins**
  - **Ardipithecus (4.4 million years ago)**: Could walk upright and climb trees
  - **Australopithecus (4 million years ago)**: Clearly built for walking upright
  - **Lucy (3.2 million years ago)**: Famous skeleton showing upright walking

2. Homo habilis (2.8-1.5m ya)

- **Major Change:** First creatures to create tools rather than waiting for mutations
- **Oldowan Tools:** Simple stone flakes and choppers

- **Walking Upright (7 million years ago)**
  - Cut meat from animal bodies
  - Crack open bones for nutritious marrow
  - Process tough plant materials
  - Better defense against predators
- **Tool-Brain Cycle:** Better nutrition → larger brains → more sophisticated tool-making → even better nutrition

3. Homo erectus (1.9m-110k ya)

- **Body Features:** Taller (4.5-6 feet), stronger, 50% larger brain than Homo habilis
- **First to Leave Africa:** Spread across Asia to Georgia, China, and Indonesia
- **Fire Mastery** (1 million years ago)
  - Provided warmth, protection, light, and cooking
  - **Cooking changed human bodies**: smaller jaws, less strong teeth, shorter digestive systems, larger brains
- **Advanced Tools:** Created carefully crafted "Acheulean" hand axes
  - Used for 1.5 million years - longest-lasting technology in human history
  - Show planning and symmetry, perhaps the earliest beginnings of art