• Examples of alternative models
  - the fast-spinning Sun
  - Comte de Buffon's collision hypothesis
  - Chamberlin-Moulton's close encounter hypothesis
  - Schmidt's Sun passing through an interstellar cloud

• Challenges to the nebular theory
  - weird exoplanets – hot jupiters
  - stellar formation typically a violent process
  - planetary disks can linger a long long time

• The basics of geology

• Volcanism, plate tectonics, magnetic fields

• Types of rocks
  ◦ igneous (magmatic)
  ◦ sedimentary
  ◦ metamorphic

• Types of sediments
  ◦ clastic
  ◦ organic
  ◦ chemical

• Sedimental stratification

• Rock cycling