The Outer Planets
Jupiter in a nutshell

- Orbital distance = 5.2 AU
- One Jovian day = 9.9 hours
- One Jovian year = 11.9 years
- Mass = 318 x Earth’s Mass
- Radius = 10.5-11.2 x Earth’s Radius
- Temperature: 165 K (1bar), 112 K (0.1bar)
- Global magnetic field > 10 times stronger than Earth’s
- 64 named moons (47 less than 10 km across)
Orbital Resonance

- Ganymede 4:1
- Europa 2:1
- Io 1:1
- Jupiter
Jupiter's auroras
Europa
Saturn in a nutshell

• Orbital distance = 9.6 AU
• One Kronian day = 10.6 hours
• One Kronian year = 29.5 years
• Mass = 95 x Earth’s Mass
• Radius = 8.5-9.5 x Earth’s Radius
• Temperature: 134 K (1bar), 84 K (0.1bar)
• Global magnetic field comparable to Earth’s
• 62 moons, 53 have names
Saturn's Satellites and Ring Structure

All bodies are to scale except for Pan, Atlas, Telesto, Calypso, and Helene, whose sizes have been exaggerated by a factor of 5 to show rough topography.

Not shown: Pan 2.22 Rs  Titan 20.3 Rs
Atlas 2.28 Rs Hyperion 24.6 Rs
Prometheus 2.31 Rs Iapetus 59.1 Rs
Pandora 2.35 Rs Phoebe 214.9 Rs

This graphic is available in color if required.
Aurora at Saturn
Aurora at Saturn
Titan
Titan
Enceladus
Enceladus
Enceladus

Temperatures in Kelvin

Max maybe as high as 160K
Uranus & Neptune
Uranus & Neptune
Uranus

Miranda
Neptune

Triton