

Running Paper on the Composition of the Jovian Planets

1. Based on the solar nebula theory and how it applies to the formation and composition of the planets, what do we expect the composition of the Jovian planets to be like?

Answer individually:

2. How are weather systems on Jupiter similar to weather systems on Earth? (Give examples.) How are they different?
3. What methods have astronomers used to infer the interior structure of the Jovian planets?
4. How do astronomers explain the detected magnetic fields of the Jovian planets? How do the magnetic fields of Uranus and Neptune differ from those of Jupiter and Saturn?

Now form pairs or trios and discuss your answers, revising if necessary.

Answer individually:

5. Based on what has been discussed today, explain how the solar nebula theory predicts the structure and composition of the Jovian planets.