



## **FIVE key passages, pages, pictures, and paragraphs you should review**

1. **Pages 32-33 – and Figures 2.10 & 2.11** – Constellations and Latitude, and Circumpolar constellations. The Celestial sphere diagrams in 2.10 are not easy to grasp – refer to the online video Introductory Astronomy: Motions of the Stars to help you picture what is going on. But definitely review why it is that everyone on Earth at the same latitude sees the same sky (just at different times of the day.)
2. **Page 34 – Figure 2.12** – Constellations visible at particular times of night vary as Earth orbits the Sun. This picture is useful to help you understand why the sky's constellations change over the seasons, and why you can go outside to see Orion in winter, but will not see Scorpius until summer.
3. **Pages 36-37 – Figure 2.13** – The Seasons – a great summary graphic of why seasons occur, and how the orientation of Earth relative to the direction of the sun results in different amounts of sunlight for different amounts of time.
4. **Page 44 – Figure 2.20** depicting eclipses is a great three-dimensional illustration capturing how the Moon's orbit around Earth, as we both orbit the Sun, results in both solar and lunar eclipses, but only at particular times of the year. Note that this is totally out of scale - sometimes in science we have to change the scale a bit to help us grasp the key concepts.
5. **Pages 50 – 51** (and Figure 2.28) – Why did the Greeks reject the real explanation for planetary motion. Be sure to read the section about **stellar parallax**, and try to simulate it for yourself by walking around your room, first closer to one wall, and then farther away on the opposite side of the room. Two thumbtacks (or stars!) pasted on the wall will seem closer together when seen from farther away. Since the naked-eye astronomers of the Greek era didn't have telescopes, they could see no change in the stars' relative positions from one season to the other. The two brightest stars of Gemini, for example – Castor and Pollux – don't change their separation when we see them in October (rising late at night) compared with April (setting early in the evening.)

Five key end-of chapter resources you should look at

- Pages 52-53 Visual Skills Check
- Pages 53-54 Test your Understanding
- Page 54 Process of Science questions #37 and #38
- Page 55 Discussion Question 51
- Page 55 Web Projects 52, 53, and 54

**Questions/Concepts YOU want to Review:**