Questions by Alice Arrowsmith

What causes seasons???

The **seasons** are **caused** by the tilt of the Earth's rotational axis away or toward the sun as it travels through its year-long path around the sun. The Earth has a tilt of 23.5 degrees relative to the "ecliptic plane"

Why are the seasons in the Southern hemisphere opposite to those in the North???

Regardless of the time of year, the **northern** and **southern hemispheres** always experience **opposite seasons**. This is because during summer or winter, one part of the planet is more directly exposed to the rays of the Sun (see Fig. 1) **than** the other, and this exposure alternates as the Earth revolves in its orbit.

Why are the days longer in summer than winter???

Actually, though, the Earth is tilted 23.4 degrees! (A circle is 360 degrees.) This tilt is the reason that **days** are **longer in the summer and shorter in the winter**. The hemisphere that's tilted closest to the Sun has the **longest**, brightest **days** because it gets more direct light from the Sun's rays.