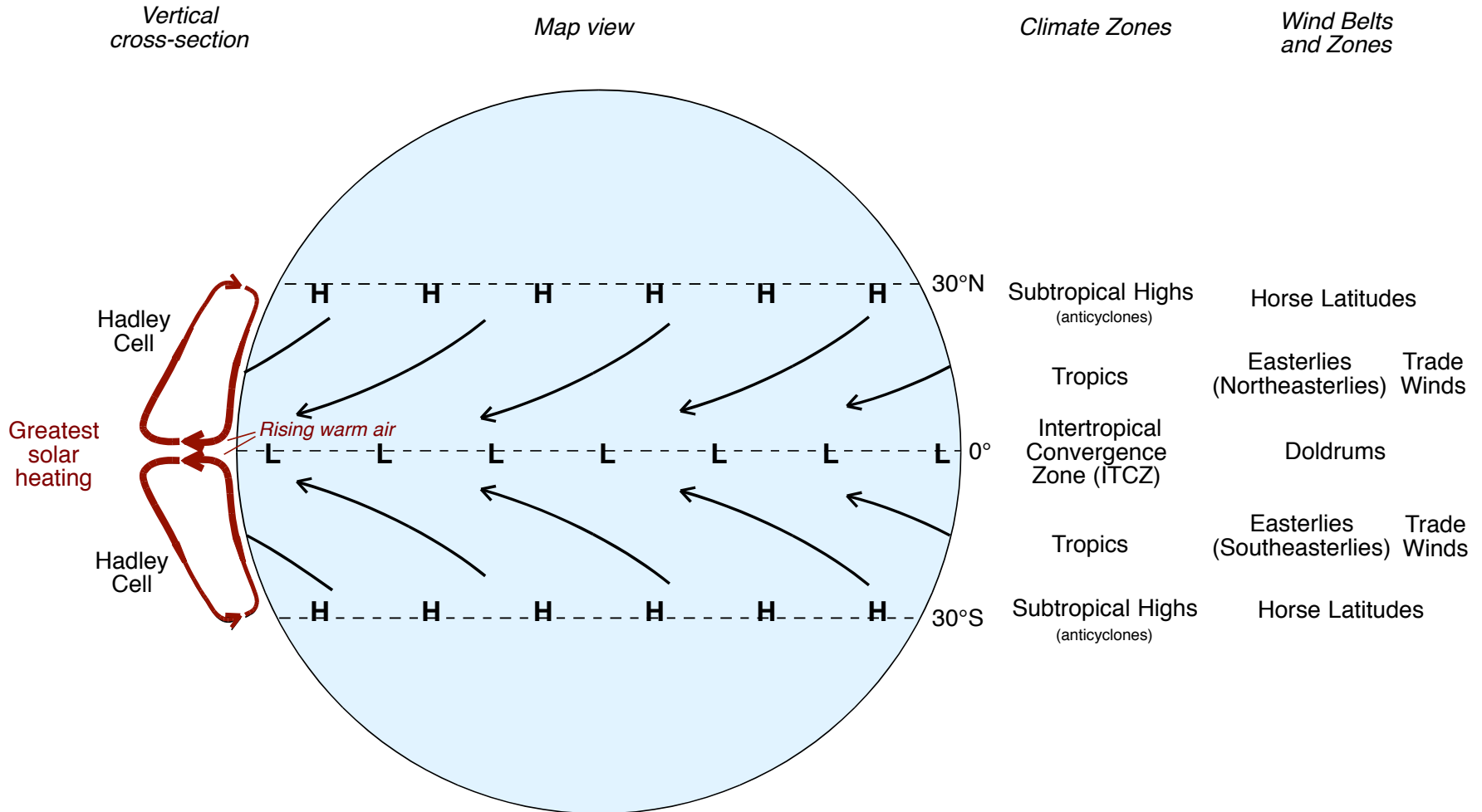


Global climate zones 1a: building an idealized simple view



This diagram is the first of four building a typical schematic representation of Earth's surface atmospheric pressure, surface winds, and tropospheric circulation. This (Part 1a) and the next (Part 1b and 1c) are pedagogical steps to the full representation in Part 1d. Parts II to V then expand on that model.

Earth's surface is heated most near the equator, and so air is heated most there. That warmed air rises, as suggested above, and moves away from the equator high in the troposphere. That air sinks at about 30° N and S, and some of it returns across Earth's surface to the equator to close the Hadley Cells that are shown at left above. In map view,

the winds at Earth's surface turn according to the Coriolis Effect (right in the Northern Hemisphere; left in the Southern Hemisphere), making the Earth-surface winds of both cells easterlies.