

GLOSSARY

A

albedo percent of solar radiation reflected by a surface (466)

atmospheric pressure ratio of the force of the air to the area of the surface on which it presses (457)

B

barometer instrument that measures atmospheric pressure (458)

C

climate general weather conditions over many years (455)

conduction type of energy transfer in which vibrating molecules pass heat along to other vibrating molecules by direct contact (468)

convection cell looping pattern of flowing air (470)

D

doldrums narrow zone of low air pressure at the equator characterized by weak and undependable winds (471)

E

electromagnetic spectrum complete range of wavelengths of radiation (463)

exosphere layer of the atmosphere above the ionosphere that merges with interplanetary space (461)

G

greenhouse effect process by which the atmosphere traps infrared rays over the Earth's surface (467)

H

horse latitudes subtropical high-pressure belt of air, around 30° latitude (471)

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I

ionosphere lower region of the thermosphere, at an altitude of 80 to 550 km (461)

J

jet streams bands of high-speed, high-altitude westerly winds(472)

M

mesopause upper boundary of the mesosphere, marked by an increase in temperature (461)

mesosphere coldest layer of the atmosphere that extends upward from the stratosphere to an altitude of about 80 km (461)

N

nitrogen cycle process in which nitrogen moves from the air to the soil to animals and back to the air (457)

O

ozone form of atmospheric oxygen that has three atoms per molecule (455)

P

polar easterlies weak global winds located north of 65° north latitude and south of 65° south latitude that flow away from the poles (472)

S

standard atmospheric pressure the atmospheric pressure measured at sea level; 760 mm of mercury (459)

stratopause high-temperature zone that marks the upper boundary of the stratosphere (460)

stratosphere layer of the atmosphere that extends upward from the troposphere to an altitude of 50 km; contains most atmospheric ozone (460)

subpolar low belt of low air pressure at about 60° north and 60° south latitude (472)

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T

temperature inversion atmospheric condition in which warm air traps cooler air near the Earth's surface (462)

thermosphere the atmospheric layer above the mesosphere (461)

trade winds global winds flowing toward the equator between 30° and 0° latitude (470)

tropopause upper boundary of the troposphere in which the temperature remains almost constant (460)

troposphere atmospheric layer closest to the Earth's surface where nearly all weather occurs (460)

W

weather general condition of the atmosphere at a particular time and place (455)

westerlies global winds located between 40° and 60° latitude that flow from the southwest in the Northern Hemisphere and from the northwest in the Southern Hemisphere (471)