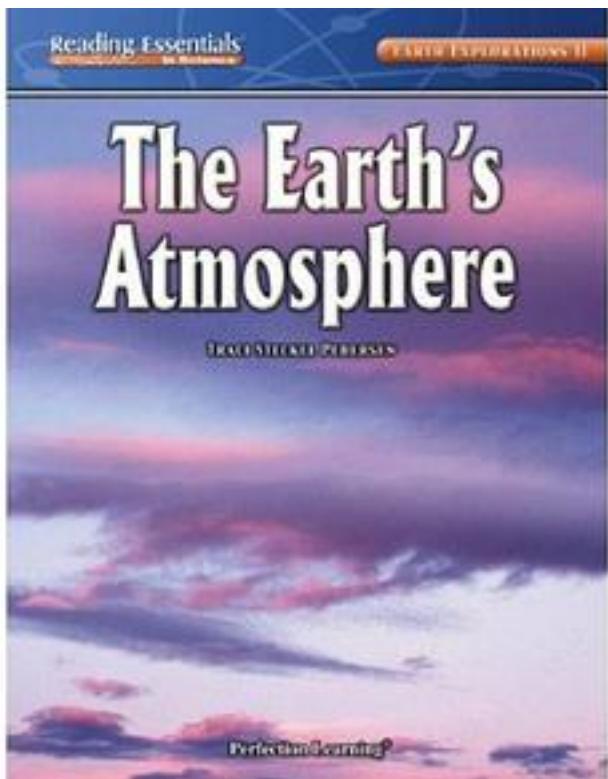


The Earth's Atmosphere



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The book entitled "Atmospheric science and Global Warming" covers a wide area of the atmospheric science, focusing particularly on those physical and dynamical aspects of our environment which tend to create heat sources and sinks in the earth-atmosphere system and which it seeks to balance through circulation at different time and space scales. The processes of heat transfer in the atmosphere and ocean by general circulation and by waves and oscillations are discussed in detail. The heat balance of the atmosphere is discussed after taking into consideration the role of

various types of greenhouse gases that may be present. In this context, the publication of the book will be very timely and is bound to be welcome by all those interested in knowing more about our atmosphere and the way it works, especially in the matter of such a contentious issue as global warming by greenhouse gases released by human activities on earth. Starting with the origin, composition and structure of the atmosphere, the physics part deals with the laws of heat and thermodynamics of dry and moist air, water vapour and its transformation into different phases and formation of cloud and rain under different stability conditions, solar and terrestrial radiation and their impact on the gaseous envelope in different layers of the atmosphere which create sources and sinks in different parts of the atmosphere especially in its boundary layers. The dynamics part discusses the various types of motion systems including the general circulation and waves and oscillations that operate in order to achieve heat balance in the earth-atmosphere system. The book entitled "The Earth's Atmosphere: An Introduction to its Physics and Dynamics" covers within its 19 Chapters and in about 450 pages a wide area of the atmospheric science, focusing particularly on those physical and dynamical aspects of our environment which tend to create heat sources and sinks in the earth-atmosphere system and which it seeks to balance through circulation at different time and space scales. The processes of heat transfer in the atmosphere and ocean by general circulation and by waves and oscillations are discussed in detail. The heat balance of the atmosphere is discussed after taking into consideration the role of various types of greenhouse gases that may be present. In this context, the publication of the book will be very timely and is bound to be welcome by all those interested in knowing more about our atmosphere and the way it works, especially in the matter of such a contentious issue as global warming by greenhouse gases released by human activities on earth. Starting with the origin, composition and structure of the atmosphere, the physics part deals with the laws of heat and thermodynamics of dry and moist air, water vapour and its transformation into different phases and formation of cloud and rain under different stability conditions, solar and terrestrial radiation and their impact on the gaseous envelope in different layers of the atmosphere which create sources and sinks in different parts of the atmosphere especially in its boundary layers. The dynamics part discusses the various types of motion systems including the general circulation and waves and oscillations that operate in order to achieve heat balance in the earth-atmosphere system. Between the two parts, the book offers a comprehensive treatment of the science of our atmosphere.

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