This edited volume of 13 new essays aims to turn past discussions of natural kinds on their head. Instead of presenting a metaphysical view of kinds based largely on an unempirical vantage point, it pursues questions of kindedness which take the use of kinds and activities of kinding in practice as significant in the articulation of them as kinds. The book brings philosophical study of current and historical episodes and case studies from various scientific disciplines to bear on natural kinds as traditionally conceived of within metaphysics. Focusing on these practices reveals the different knowledge-producing activities of kinding and processes involved in natural kind use, generation, and discovery. Specialists in their field, the esteemed group of contributors use diverse empirically responsive approaches to explore the nature of kindhood. This groundbreaking volume presents detailed case studies that exemplify kinding in use. Newly written for this volume, each chapter engages with the activities of kinding across a variety of disciplines. Chapter topics include the nature of kinds, kindhood, kinding, and kind-making in linguistics, chemical classification, neuroscience, gene and protein classification, colour theory in applied mathematics, homology in comparative biology, sex and gender identity theory, memory research, race, extended cognition, symbolic algebra, cartography, and geographic information science. The volume seeks to open up an as-yet unexplored area within the emerging field of philosophy of science in practice, and constitutes a valuable addition to the disciplines of philosophy and history of science, technology, engineering, and mathematics.