

Stargazing Basics Getting Started in Recreational Astronomy

SECOND EDITION

How do I get started in astronomy? Should I buy binoculars or a telescope? What can I expect to see?

This wonderful beginners' guide to astronomy covers all the information you need to get started. This second edition has been fully updated and now includes new illustrations, the latest astronomy equipment, and celestial events through to the year 2025. It starts by explaining the basic techniques and equipment you need for exploring the skies before taking you on a tour of the night sky, covering the Moon, Sun, stars, planets, and more. Any necessary technical terms are clearly explained.

The author gives sound advice on using and purchasing affordable binoculars, telescopes, and accessories, and the book is illustrated with photos taken by the author, showing how objects in the sky actually look through modest amateur equipment. It contains a comprehensive glossary and references to further astronomy resources and websites.

PAUL E. KINZER has many years' experience as an amateur astronomer and educator. He currently runs his own small business, traveling to schools and other venues with a Starlab portable planetarium, to share his knowledge of the night sky with groups of all ages.



"If you have a budding astronomer in your life, then this certainly is a book that you should consider as a gift, or buying yourself, if you're that emerging stargazer. I remember when I first turned my dad's binoculars toward the night sky. I had no idea what I was looking at or the proper way to do stargazing. Some 55 years later, this small, information-packed book has arrived. I wish I had these fundamentals packed into one book back then . . . I highly recommend this well-written book for anyone interested in learning about the night sky, using and/or purchasing binoculars or a telescope, and desiring to learn how to become a knowledgeable stargazer."

Robert Garfinkle, Sky & Telescope

"The extensive glossary is a real jargon buster and will be a great help for the absolute beginner. I enjoyed this book hugely and recommend it very strongly. Kinzer is a true enthusiast. If he does not get you out there and looking up, no one will."

The Observatory

"In clear, accurate and precise terms, [the book] explains what sort of things you are likely to see ... observing the sky, and from the beginning sets out to dispel common misconceptions about what is needed in order to get pleasure from observing. The descriptions of different types of binocular and telescope set-up are particularly useful to the beginner ... Just enough explanation of each of the types of object is given so that the observer can feel they know something about what they have been looking at ... A recommended read for all who are new to stargazing ..."

David Bowdley, Astronomy Now

"... written in a friendly, encouraging tone ... loaded with good advice ... Reading this book should be required for anyone who plans to purchase a telescope ..."

Dr. John Dickey, University of Tasmania

"This book does a good job of covering most of the aspects of starting recreational astronomy, from naked eye observing to purchasing and using a telescope."

Hazel Collett, Journal of the Royal British Astronomical Association

"Difficult astronomical concepts are explained clearly, there's an excellent glossary and the text is broken up with useful pictures and information boxes."

BBC Sky at Night

"Author Paul Kinzer is an amateur astronomer himself, and clearly familiar with the challenge of selecting from the dizzying range of possibilities. He wisely avoids recommending particular models, as specific suggestions will quickly become outdated. Instead, the book offers tips on telling flashy but poor quality features from those that will enhance an evening's stargazing."

Physics World



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Paul E. Kinzer





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To Wina and Bjorn





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Preface to the second edition

Stargazing Basics was first published in 2008, and written in the year or two before that. Amateur astronomy has changed in the years since. The equipment available from a growing number of manufacturers has increased. Computer technology has changed the hobby in many ways, from expanding online communities to smart phone apps; from computer-guided telescopes to completely new camera designs available even for those with modest budgets.

These changes are both good and bad for someone just starting out in stargazing. On the one hand, choices abound; there are many more possibilities. On the other, choices abound, and it can be pretty overwhelming to someone who is just starting out.

In this second edition, I will discuss many of these changes. Knowing what some of the new choices offer can be helpful. I've also added information on steps beyond the beginner stage. This edition also contains other improvements: updated tables on locating the planets, many new illustrations, larger star charts, and several pages of color images.

Still, though there have been changes, the basics remain the same. The underlying design and use of telescopes and other equipment is the same as it was eight years ago, and in some ways, as it was eighty years ago or longer. Starting simple is still the best idea, and that's what this book is still about.