

" The Polar Constellations " -- Lesson # 1

In the formation of constellations by reflective colored star dots constructed to adhere to the mid-night blue background, a fixed size for the hexagonals is used in this lesson because it is a size that all, even young children, can easily handle. To achieve differences in star-brightness, thus simulating magnitude, the stars are color coded. You will observe distinct differences in the reflective power from white to yellow, yellow to orange, and orange to red, whether the light source is artificial or natural. The reflective property of the star dots enables study of the stars indoors until one is ready to match the knowledge thus acquired to the stars as they are.

The " Discover the Stars " Series: Lesson # 1 through Lesson # 5

As the following lessons progress, reflective dots incorporate variations in color, size, and number to represent the stars. Constellation mounting boards include both square and circular forms, or circular on square, or squares that fold into a rectangular band.

Lesson # 1: " The Polar Constellations " --

The " Big " and " Little Dipper " and Cassiopeia are the starters, twenty stars in all, and five identified by name.

Lesson # 2: " Stars in Their Season " --

More complete polar constellations relative to the seasons (the months of the year), showing 51 stars in all.

Lesson # 3: " As the Earth Turns " --

Polar constellations reaching to within 25 degrees north of the celestial equator are used to introduce the kinds of time used in astronomy essential to the further exploration of space, explaining Local Mean Time (time on the observer's meridian), Standard Time (based on conventional zones east or west of Greenwich) and Sidereal Time (star time). In this lesson, 121 stars are used to demonstrate these concepts while increasing one's knowledge of the constellations.

Lesson # 4: " Expanding Your Universe " --

How to expand one's knowledge of the stars beyond the polar groups into areas north and south of the celestial equator.

Lesson # 5: " Myth and Reality in the Sky " --

Recognizing the constellations of the zodiac and their importance as the band or "path" through which the the planets wander.

All of these lessons build progressively on the individual's knowledge of astronomy. More advanced lessons illustrate the mythology behind the naming of the constellations, introduce the names of the stars used in navigation, and explain the relation of the stars to the seasons, and of time and size to distance.

These unique instructional aids that incorporate reflective star dots were conceived and developed by Albert Sargis, President of See-Bak, Inc. The lessons were designed and written by Dr. Richard Knowles Morris.

ABOUT THE AUTHOR

Dr. Morris is educator, lecturer and world traveler, and Professor of Education and Anthropology, Emeritus, Trinity College (Conn.). Dr. Morris holds an A.B. from Trinity College and an M.A. and Ph.D. from Yale University. He has done post-doctoral work at New York University, Osmania University in Hyderabad, India, and at the University of Hawaii. He is the author of numerous articles on education, history, science and philosophy.

" I can think of no study, " the professor says, " more suited to inspiring awe, humility, patience and aesthetic wonder within the individual than the study of observational astronomy. It was the keystone to the sciences of the ancient world and is today a door to the frontiers of the human mind. "

<u>Part No.</u>	<u>Price Schedule</u>
# S-B 501	Lesson # 1 " The Polar Constellations "
# S-B 502	Lesson # 2 " Stars In Their Seasons "
# S-B 503	Lesson # 3 " As The Earth Turns "
# S-B 504	Lesson # 4 " Expanding Your Universe "
# S-B 505	Lesson # 5 " Myth and Reality In The Sky "
# S-B 508	Packet of the first three lessons. (Polar Constellations)
# S-B 510	Packet of the entire series. (Five lessons)

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