STUDENT FEATURE: COLORING CELL BIOLOGY


This book was selected as a special item for review for the holiday issue of our column, both because it is a beautifully rendered coloring book for cell biology and because it was created by a very talented 16-year-old high school student. The book itself is filled with stunning drawings of patterns and shapes of a wide variety of cells, making it useful in the classroom or for the science lover who also enjoys the calmness of coloring. In addition to the black and white pages, the author has included the full-color images of these cells that served as an inspiration for the coloring sheets, allowing for further discussion and exploration of the different cells and how we know what we do about cells. The reasonable cost of the book, the donation of a portion of the proceeds to STEM education, and the combination of science and leisure make it a great holiday gift or classroom addition!

Amanda Glaze  
Georgia Southern University  
aglaze@georgiasouthern.edu

ANIMAL SERIES


For many people, their main exposure to lizards is watching the clever television commercials featuring the Geico Gecko. A cartoon character that talks, he is consistent with real geckos, the only lizards with vocal cords. If that isn’t enough, this captivating book offers considerable information about other unique features of geckos, which can scale vertical surfaces and walk upside down with no form of adhesive or suction cups.

Though lizards are considered reptiles, it is difficult to come up with a perfect definition of a reptile. Reptile taxonomy is constantly changing, and the author admits that there is not complete agreement among taxonomists as to how they are classified. Some even include crocodiles, alligators, caimans, and tuataras as lizards. Found on all continents except Antarctica, lizards are the largest group of reptiles at about 6000 species. Most are small slender animals, but Central America’s green iguana can grow to 2m in length, and Indonesia’s Komodo dragon checks in at about 3m in length. Lizards come in a variety of textures, colors, and patterns, and a number of them are able to change colors in certain circumstances. Some even cast off their tails, which continue to writhe, distracting their predators.

One of the most appealing features of this book is that it is packed with thought-provoking information on the adaptations and behaviors of selected reptile species. The frilled lizard of Australia frightens predators by expanding the skin at the base of its neck, the Asian flying dragon can spread out its skin and glide from tree to tree, shingleback skinks are viviparous, and the female abandons her offspring right after birth; the short-horned toad, actually a lizard, only consumes ants and distracts predators by squirting blood from its eyes; a few lizard species are capable of reproducing by parthenogenesis; and the eyes of a chameleon rotate and focus independently, enabling it to see almost everything in a 360° arc.

Lizards are compared with mythological species such as dragons and with extinct species such as dinosaurs. Dragons appear in the folklore of many human cultures, with the most significant mythological animal being the Asian dragon, depictions of which go back more than 3000 years. The oldest identifiable dragons are found in artifacts exhibiting demons and deities of ancient Mesopotamia. In some Western cultures, dragons are lizard-like creatures adorned with other animal features such as...