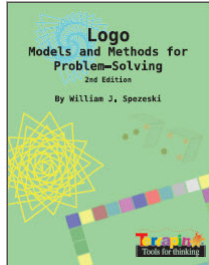




Welcome to the fall issue of *Turtle Talk*, the Logo newsletter from Terrapin Software.

Logo Models and Methods Second Edition



Logo Models and Methods for Problem-Solving is now available in an updated second edition. Written by [William Spezeski](#), computer science professor at [Massachusetts College of Liberal Arts](#), *Logo Models and Methods* uses a myriad of graphical activities to teach Logo and problem-solving skills. Each chapter poses challenges, offers helpful tools, and suggests enhancements, exposing students to powerful problem-solving strategies.

Logo Models and Methods is targeted at high school and college students. Introductory concepts are followed by more in depth chapters which invite students to combine basic math and graphics with more advanced skills. Completion of *Logo Models and Methods* provides a basic course in computer programming.

Exercises, diagrams, and accompanying files have been updated in the second edition to take advantage of capabilities in [Terrapin Logo v. 3](#). Discussion of Logo objects is integrated throughout the book and six new sections, from controls to robotics have been added. This new edition is now available at an introductory price of \$24.95.

[Learn more about Logo Models and Methods for Problem-Solving...](#)

Students Discover Bees at Pali Elementary

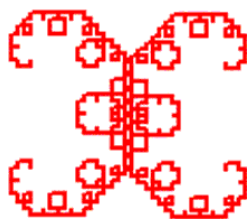


One day second grade students at [Palisades Elementary Charter School](#) in Pacific Palisades, CA found a bee (aka [Bee-Bot](#)) in their classroom! This led to intense and excited speculation on what it was and how it worked. With lots of hands-on exploration, the students soon deciphered what the command buttons did and how to make the little robots move. Soon they were working collaboratively to create Bee-Bot dances and compete to enter their dance in the "Bee-Bot Hall of Fame."

At "Back to School Night" teachers showed Bee-Bot to visiting parents and described how it facilitated learning. Parents provided funding for six more Bee-Bots for the school. Soon the excited students were charged with the task of sending Bee-Bot "around the world" to visit each continent as they learned its name. According to Tech Instructor [Valerie Belt](#), "Bee-Bots provide a great learning experience and we plan to continue working with them. We did 'left/right' turn practice which is tough for students at this age, so it is going to be SO good for them!"

[Learn more about Bee-Bot Discovery at Pali Elementary...](#)

Mandelbrot Inspired Fractal Exploration



[Benoit Mandelbrot](#), a pioneering mathematician who is considered the father of fractal geometry, recently died at age 85 in Cambridge, MA. Fractals are based on a set of mathematical principles Mandelbrot developed to model patterns in the natural world showing repeating patterns at different scales.

Logo and recursive Logo procedures offer an intuitive and accessible way to explore fractals. Logo procedures of just a few lines can produce intricate fractal designs that appear complex but are constructed of a few simple commands.

Creating fractals is a popular Logo activity. Math students at Central Connecticut State University have contributed [fractal designs](#) made with [Terrapin Logo](#). Illustrated here, the procedures that create the designs are available for analysis and adaptation as one of Terrapin's [Project Ideas](#).

[Try the Logo fractal programs...](#)

In this issue

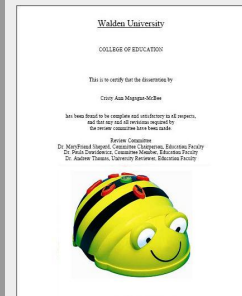
- *Logo Models and Methods* Second Edition
- Students Discover Bees at Pali Elementary
- Mandelbrot Inspired Fractal Exploration

Quick Links...

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Terrapin Logo and *Crystal Rain Forest* are available at the [New Mexico Educational Software Clearinghouse](#) housed at Eastern New Mexico University in Portales, NM. NMESC reviews educational software and provides opportunities for pre-service and in-service teachers in New Mexico to review software prior to purchase.



Read [Dr. Cristy McBee's](#) Ph. D. study exploring effectiveness of [Bee-Bot](#) handheld devices in kindergarten to teach phonemic awareness. She notes that "teachers reported students using Bee-Bots remained on task longer, increased motivation, developed leadership skills, and students enjoyed learning with the devices."



Terrapin has a new fax number:
1-617-608-9079

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