James White was a visionary mathematician, computer scientist, and educator. He developed his Mathwright family of software tools in order to harness the power of the computer in the service of mathematics learning. Here, the distinction between learning and teaching is intentional. White was a student of the psychology of learning, and read deeply in that field. His belief in constructivist learning models, informed by both scholarship and personal experience, inspired his fundamental goal: to provide students opportunities for actively exploring mathematical concepts. In particular, he wanted teachers to be able to build computer environments that provided students with such experiences. The software is not supposed to teach mathematics, but it is supposed to let the user learn mathematics. In this presentation, we will highlight the many accomplishments of James White in connection with these ideas. (Received September 13, 2004)