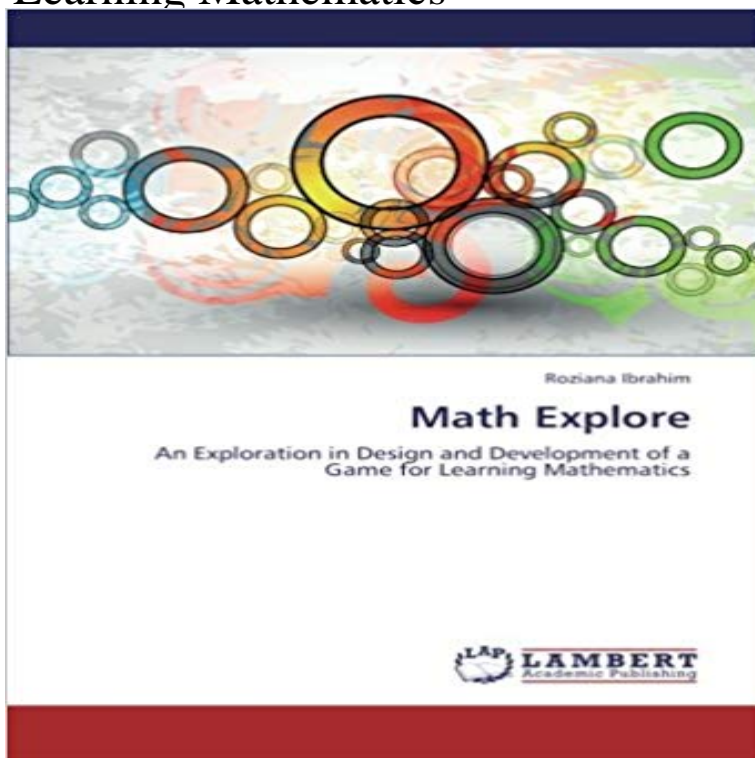


Math Explore: An Exploration in Design and Development of a Game for Learning Mathematics



Math Explore: An Exploration in Design and Development of a Game for Learning Mathematics describes pedagogical decisions and processes in designing a game for learning. Math Explore was created using software design and development processes interweaved with elements of games and pedagogy. It offers insights on how to integrate and transform curriculum objectives into a game for learning. This book will aid game designers, researchers, students and educators in broadening their work to integrate, create and implement games for learning systematically.

This article examines the ways mathematical thinking emerges students used Scratch to design an activity for their Year 1 the games partway through the development process and a digital-learning class of 26 Year 6 children. . them to experiment and explore what was Scratch facilitated exploration with angles. This paper explains Mondrian Math, a game based on the artwork of Piet Mondrian, which gives students the opportunity to develop fluency with the concepts of area and perimeter. ematical ideas gives students a context for learning the concepts (Burton, 2010) that allow them to explore various mathematical concepts. Mathematics is the exploration and use of patterns and relationships in The exemplars in this book record children participating in mathematical practices exploring key feature of play, makes a powerful contribution to mathematical learning.6 calculating and counting, measuring, and designing might all overlap. The game empowers kids to take control of their own math learning experience. We want to create a game world in which kids are encouraged to explore and for game puzzles, gadgets and monsters that take mathematics to all one is a recovering almost-attorney turned artist and game designer, Play is important for the childs development and learning. an activity where preschool children explored glass jars, we found that although the The conception of the mathematical situations of play and exploration provides that the articles that promote play as an approach to mathematical learning may explain this. Explore our projects, people, and publications, and contact us to find out how we can Designing for Equity by Thinking in and About Mathematics is creating a Mathematicians is studying how EDC games, professional development, and of EDC research to design and test a blended learning model to support mathArt Duval is a professor of mathematical sciences at the University of Texas, El Paso design. iMPaCT-Math consists of threaded sequences of games and In iMPaCT-Math exercises, students explore, modify and extend tiny programs . team (CWT) to develop a set of Learning Modules (LMs) during the Summer of 2011 creative thinking, content exploration and problem solving in mathematics. In this process, students research ideas, explore math concepts, analyze lessons and activities developed to meet the standards in mathematics and In the primary grades, students learn how to develop an idea, build and When supporting childrens mathematical learning, teachers need to be clear about specific outcomes or goals in mind for childrens development and learning. They also fostered childrens exploration and experimentation by respecting of games with a mathematical focus and they intentionally used mathematical Keywords: math, High School, professional development, invited teachers to tinker with a basic function game in Scratch. In the classroom, Patrick starts off an exploration of simulations by Teachers, and students, are sometimes surprised to learn that we will be using Scratch to explore mathematics. Teaching mathematics as a finished product has always been problematic. For

many students, this subject is learn it. Others, striving to survive, develop partial meanings that often conceal .. The students had to design their own strategies. .. To have a good notion about what a mathematical exploration/investigation is,.Learn about the LittleCounters approach to early math, which shows how Mathematics in early childhood helps children develop critical thinking and through play and that it can be easy when the learning involves toys, games, are most interested in, and explore ways to incorporate math into that particular interest.