### WHITE PAPER AND RESEARCH

The Edmark® House Series



### **Edmark House Series**

Early childhood education is growing across the United States. It is reforming to provide developmentally appropriate learning activities and experiences for the young child. Technology is providing a new dimension to this learning experience both for the child and the teacher. It is helping teachers provide multiple modalities of learning and allowing children to be introduced to and discover new and exciting things in their world of learning.

The U.S. Department of Education reports that over 90% of children between the ages of 5 and 17 utilize computers in their homes (2004). Technology brings about new avenues of learning, and challenges in using it correctly to meet the needs of young children. Early childhood educators must look closely at the impact of technology and the use of it in their classrooms. In doing so, it is imperative that the use of technology follows the developmental needs of the young learner. The learning environment should never lose the ability for a child to discover, explore and have hands-on opportunities independently and with others.

In order to promote best practices in meeting the needs of young children in the early learning environment, Houghton Mifflin Harcourt Learning Technology (HMHLT) has modeled its implementation of the Edmark® House Series with the National Association for the Education of Young Children (NAEYC). NAEYC and HMHLT are dedicated to the development of young minds in an appropriate learning environment. NAEYC provides the guidelines to effective integration and implementation of technology in the early childhood classroom.

NAEYC promotes best practices in effective instruction to impact young learners. In looking at the digital age in education and the technology trends that are occurring in both homes and schools, many questions surface about the use of technology in early childhood classrooms. NAEYC's position supports the use of technology in the classroom with effective instructional practices in selection, delivery and monitoring of child interaction with technology.

According to NAEYC, "the early childhood educator has a responsibility to critically examine the impact of technology on children and be prepared to use technology to benefit children." Technology, if selected and used appropriately, will impact the early learner (Shade & Watson, 1990).

Houghton Mifflin Harcourt Learning Technology provides developmentally appropriate instructional technology solutions for the early learner with the Edmark® House Series. Scientifically research-based and interactive engaging learning, the Edmark® House Series opens the world of discovery for the young child.

In 2006, NAEYC stated its position on the use of technology in the early childhood classroom. This position paper detailed the need for educators to utilize 7 principles when implementing technology. Each program should be of the highest standard as detailed by the position paper. Instructionally sound and designed for the early learner, the Edmark® House Series aligns to that position.

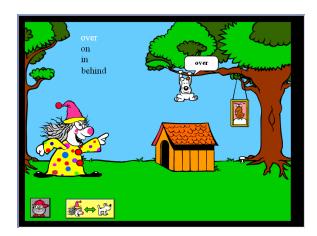
The Edmark® House Series is a comprehensive solution designed by early learning specialists. It includes interactive software and activities that motivate and engage children to discover new concepts and explore, while promoting a lifelong love of learning.

The Edmark® House Series and the NAEYC position on technology in the Early Childhood Classroom dictates that:

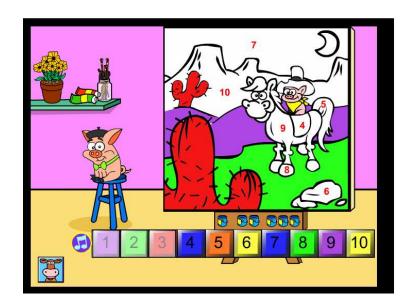
## 1. Technology must be age appropriate, individually appropriate and culturally appropriate. (NAEYC 2006)

Designed by early literacy and special needs experts, the Edmark® House Series allows early learners to discover reading, math, science, and social studies concepts. Featuring a highly engaging approach to learning, the program is proven to be effective in engaging children and individualizing instruction -- building a foundation of skills that last a lifetime. Highly engaging graphics and interactive discovery learning opportunities align to the developmental needs of children.

**Bailey's Book House**® helps children build the foundation for a lifelong love of reading through exploration of letters, words, rhyming and creating greeting cards. This exploration allows children to grow and build early literacy skills. Through playful activities, children can discover letter names and sounds, letter recognition, word families, describing words, text relation to contextual and visual clues, positional words, sentence building, and much more. Activities help children build language concepts and thinking skills they need to communicate and make sense of the world around them. Discovering the meaning to words is made easy for the children through exciting games and activities with friends like Edmo and Houndini.



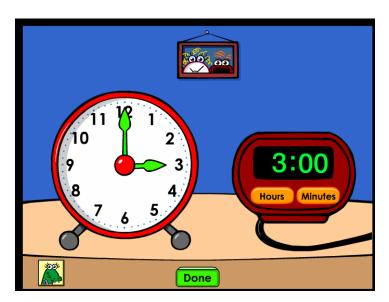
**Millie's Math House**® opens the young child to a world of discovering mathematics. Young children have the opportunity to build fundamental math concepts and thinking skills through interactive activities. These activities support the role of play in early childhood learning, as children explore numbers, shapes, quantities, patterns, and sequencing. Fun and exciting activities such as the lesson Paint by Number, allows children to learn to identify their numbers, then moves seamlessly to skip counting by 2's and 5's as the child's learning level increases..



**Sammy's Science House**® introduces young children to important early science and thinking skills. This course helps young scientists build their understanding of biology, ecology, weather, and conservation concepts. Having concrete examples to form a connection to the world around them is part of the development of understanding scientific concepts for the early learner. Going Green is easy with Sammy and his friends as they recycle compost and learn to clean up familiar environments such as home and school.



**Trudy's Time & Place House®** provides early learners with the opportunity to explore and discover essential social science concepts. Children love activities with Trudy. Young Children expand their knowledge of the world around them through modules that allow them to visit and compare cities, towns and the countryside. They can build their own landscape by adding buildings, roads and train tracks to interactive maps. Children will also learn about people in the community and what they do. Telling time with The Time Twins is exciting as they use both digital and analog models to understand standard and modern types of clocks.

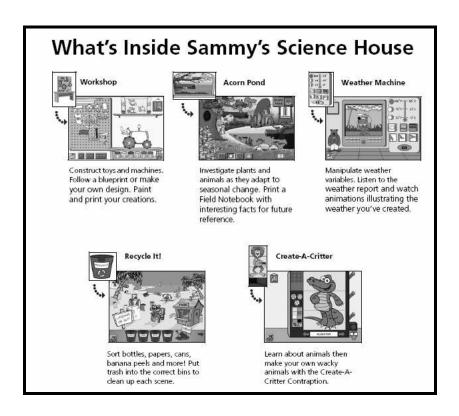


### 2. Technology, when used appropriately can enhance a child's cognitive and social abilities (NAEYC 2006)

Research and development of the Edmark® House Series was solely refined and developed by early childhood experts along with teachers of children with special needs. Children discover new paths in learning and are provided a wealth of opportunities to practice skills in a non-threatening way. Positive, gentle feedback, guidance and natural prompts provide encouragement to young children. All letters, words and sentences are presented in a meaningful manner supported by visual and audio cues to promote acquisition. Discovery learning is encouraged through an intuitive interface that includes both graphical and spoken instruction to allow pre-readers to be interactive with the programs independently. The Edmark House Series® is focused on development of early learning skills for children of all abilities using developmentally appropriate lessons. As children engage with the content, they are guided through activities with pictures, words and sounds, while techniques that allow children to follow along are implemented. Through music and song, children explore the world of language and develop the foundation for reading.



Technology must be easy to use and compliment the teacher's daily classroom activities and exploration centers. Teachers can drive the instruction or allow for exploration for the children as they engage in their Edmark Learning Center. Teacher guides and take home materials allow for learning outside the classroom walls to be effortless.



# 3. Technology that is integrated into the early learning classroom supports a child's learning (NAEYC 2006)

The four main titles of the Edmark® House Series expand the world of learning for the child. Children can discover science, visit different parts of the world, learn foundational math skills and even create a Happy Birthday Card as they build their love of reading. The activities promote guided discovery that is in line to early childhood standards of instruction.

Many opportunities are provided for children to explore and discover through question and answer modes allowing for independent or structured learning.



### **Bailey's Book House®**

Builds the foundation for a lifelong love of reading through the exploration of letters, words, rhyming and sentence building.

Children will discover letter names and sounds, rhyming words, adjectives, how text relates to contextual and visual cues, positional words, letter recognition, sentence building and more. Activities develop the foundation for strong word recognition, comprehension, phonics, phonemic awareness, written expression, vocabulary and word building. Children gain critical concept and thinking skills that help them to communicate and interact with the world around them.



#### Millie's Math House®

Builds the foundation for a solid understanding of fundamental math concepts and thinking skills through discovery. Children are given the opportunity to explore numbers, shapes, quantities, patterns, and sequencing while also using graphs as measurement tools and the use of numbers to paint. The foundation is established for children to begin to build critical skills such as numbers, measurement, geometry, computation, quantitative reasoning and pre-algebra skills.



### Sammy's Science House®

Teaches budding scientists how to observe, analyze and test theories. Children build an understanding of important early science and thinking skills ranging from biology to ecology and weather. They will explore topics such as animal characteristics and the importance of recycling. All children are encouraged to think like a scientist.



### Trudy's Time & Place House®

Children are encouraged to explore the world around them. Children visit and compare cities, towns and countryside- learning about the people in these communities and what they do. Various activities expose the children to travel virtually exposing them to a world outside their own.

# 4. Technology should be available to all students. Equal access should be provided to students with special needs. (NAEYC 2006)

The ability to provide instructional technology solutions that meet the needs of the diverse learner are fostered in the Edmark® House Series. The Edmark® House Series provides expanded accessibility options to ensure all children have equal access to learning with built-in universal access and pacing options which include the ability to select and assign accessibility options by the child. Closed captioning of all audio controls and screen scaling for larger views is also available.

Edmark® House Series provides two accessibility options for children with special needs and early learners. TouchFree Switch® is an all-in-one touch switch solution. By placing a video camera with the switch software, the TouchFree® Switch allows users to trigger mouse clicks without applying pressure. TouchWindow® allows learners to use a computer successfully from their first experience. Children and teachers naturally point to and touch computer monitors while using the software.

# 5. Technology should influence a child's teaching and development without bias and promote diversity (NAEYC 2006)

Edmark® House Series provides children the opportunity to engage and interact with activities that allow them to explore and discover cultural differences and promote diversity. Nations from around the world are introduced and the early learner is encouraged to interact with them. Multiple modalities of learning are supported in the variety of activities surrounding the concepts introduced. In Trudy's Time and Place House, the activity *Culture Festival* introduces the early learner to cultures from around the world. During the practice mode, the children have the opportunity to discover four different lands: an Asian Country (Japan), a Latin American Country (Mexico), an African Country (Tanzania), and a European Country (Germany). The children explore dwellings, traditional attire, local foods, traditional music and more. During the question and answer mode, the mascot asks the children to go in search of certain items from around the world, while giving them more clues as they move along. The children then place these items into a "scrapbook" which they can later print.

### Trudy's Time & Place House®

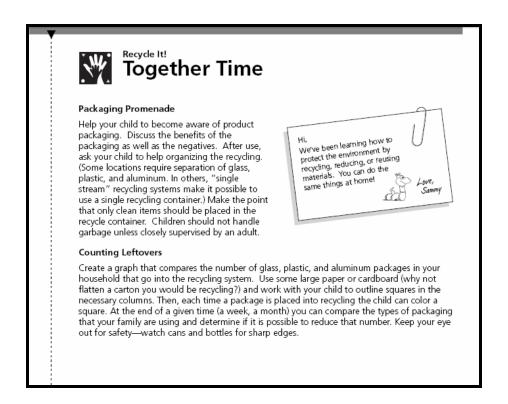
Cultural Festival



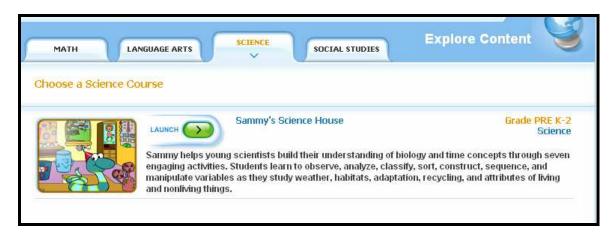
# 6. Teachers and parents should be empowered with appropriate technology applications for children (NAEYC 2006)

Providing opportunities for learning outside the classroom walls is an important goal of the program. Each of the Edmark® House Series programs provide the best in print, curriculum and together-time activities. These are available under Teacher Resources in the teacher management area of the program and available to all parents, guardians and caregivers. All teachers using the program regardless of their location have access to these resources directly from the system, rather than tracking down a binder that may be misplaced or lost. Teachers can support classroom learning opportunities for the child by providing parents with developmentally appropriate learning activities to complete at home.

The Edmark House series provides additional support for teachers, parents and children through the activity guides. Teachers may select to send these activities home with children to provide for additional discovery with parents or utilize them in alignment with class materials during the school day.



Anywhere, anytime access to the Edmark® House Series puts no limits to the learning and acquisition of skills that can be provided to children and parents at home. Parents can feel secure that the content within the software is educational reliable and developmentally appropriate.



7. The use of technology in the early childhood classroom must be supported by a strong professional development program.

Teachers working in early childhood education need in-depth training and ongoing support to integrate technology into the classroom. Balancing the hands-on learning with guided practice by professional development experts is crucial to the developmentally appropriate integration of technology.

Houghton Mifflin Harcourt Learning Technology provides high-quality in-depth professional development to assist teachers with all of the skills and strategies they will need to support a best practices model of product implementation. Ongoing support is provided through professional coaching and mentoring and multiple sharing times to engage and evaluate the teacher as the learner. These Teacher to Teacher sessions build upon the teacher's capacity for learning. Technology is an area of the curriculum, as well as a tool for learning in which teachers must demonstrate their own capacity for learning (Bredekamp & Rosegrants, 1994, 61).

All the experiences are rooted in the effective principles of professional development, allowing teachers to utilize teaching techniques that they are familiar with to integrate technology, maximize the use of technology through parental involvement, map the technology to the individual needs of the students, and facilitate cooperative learning among children. (Kearsley & Lynch 1992)

"If you want educational software that is going to reinforce what you've taught and that's going to make it fun and interactive for your students and have children learning without even knowing that they are learning, this is the perfect program for you to choose."

Terry Moore Technology Facilitator Harnett Primary School Dunn, NC

#### References

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