

Preface  
May, 2004

The Science and Everyday Experiences Initiative is honoring the legacy of the late Geraldine Pittman Woods, 13<sup>th</sup> President of Delta Sigma Theta Sorority, Inc, and Past President of Delta Research and Educational Foundation.

The only child of poorly educated but economically successful parents, Woods was born in West Palm Beach, Florida in 1921 where she attended the segregated school system. Although she excelled in science courses during high school, her college education was entirely funded by her family. According to Woods, her mother was especially determined that she get an education, so her mother set a strong pattern of support.

In her own words:

*My mother couldn't help me, even in grade school, as she was not fortunate enough to have had an education. But if I needed help in a subject like math –my mother would find someone to help me, then she would be so pleased when I did well and pleasing her made me happy.* (**From Black Women Scientists In The United States** by Wini Warren – Indiana University Press).

There are far more opportunities for the parents of today to help their child(ren) than were available to the parents of Dr. Woods. Even in this age of high technology, there is not a substitute for parental involvement in the education of children. Parents should use creative approaches to help their children learn and cannot solely depend on classroom settings to provide all the educational stimulation of our younger generation. The internet, books, appropriate television, radio, magazines and specialized programs like SEE are just a few of the resources that provide help to you, the parent educator.

Our emphasis in the SEE program is on “informal” learning. School can be fun (we all know that)! Learning outside of school can be fun too! The process of absorbing, processing and comprehending knowledge does not have to take place in a formal classroom. A trip to the local museum can stimulate areas of the brain that have developed cobwebs due to non-use. With an inquisitive mind, a walk through your yard or local park will open a new world of experiences. Some games can require critical thinking skills or math knowledge. Figuring out why a cake “fell” is scientific, fattening and fun, especially when the experience is shared with your child! Science is a part of everyday experiences.

The SEE Initiative offers this parent educator manual as a tool in honor of Dr. Geraldine Pittman Woods. It is hoped that you will use it often. Your children will appreciate the time you spend together and you may even learn something new! Knowledge is power. Make sure that you empower your children.



Dear Parents and Caregivers,

The National organizations of: **Delta Sigma Theta Sorority Inc.** (comprised of over 950 chapters), **Delta Research and Education Foundation (DREF)**, and the **American Association for the Advancement of Science (AAAS)** are collaborating in a five-year national initiative to make literacy, competency and advocacy in science, mathematics and technology a priority among African-American youth and their families.

The **Science and Everyday Experiences (SEE)** Initiative, through a variety of informal math and science everyday activities, will bring about change that is positive and pervasive for African-American youth. The positive change is inclusive of YOU, as the parent or caregiver, to assist in the learning process of your child (ren).

The education of parents and caregivers is one of the primary objectives of the SEE Initiative. We have created this ***Parent Educator Manual***, for you to use as a tool in your extremely vital role as your child's first teacher. It serves as a supplemental guide to parents and caregivers to help your children in the explorations of science and mathematic inquiries and technological resources. Use this manual to:

- Gain a better understanding of informal teaching,
- Learn how to appropriately address many mathematics and science inquiries,
- Assist the youngsters in your family circle to explore the world around them,
- Understand how *science* is connected to *everyday experiences* and most importantly...
- Help your child(ren) to make the connection!

**Science and Everyday Experiences** is more than a title; it is an essential component of our living. Thus it *must* become a new way of life that will impact, influence and increase mathematical, scientific and technological career choices of our African-American children and their well-being.

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## *Editor's Notes*

*Welcome to SEE! Science is truly everywhere and a part of our everyday experiences. There is an exciting world to discover. Thank you for taking the time to be a part of this program. Your interest in your child and community is commendable.*

*This manual was prepared for you to accept the challenge of stimulating informal learning\* in children. The activities are taken directly from the original manual developed for SEE trainers and additional information was gathered especially for you, the parent educator. It is hoped that it will be useful as you engage your child in the exciting world of science. It is not considered a finished product, but rather a work in process. Your comments are invited and suggestions for improvements are welcome. The design of the manual is intended to be fluid and amenable to change. The sections are numbered so that pages may easily be added or removed with minimal disruption to the entire manual. It is intended to be placed into a loose leaf notebook. You may add materials and resources that you find especially useful.*

*Members of Delta Sigma Theta Sorority, Inc. and staffs of the Delta Research and Education Foundation and American Association for the Advancement of Science all desire to help bridge the gap in scientific knowledge between members of our society. If you should have questions concerning this manual or questions on informal scientific, mathematical, or technological issues, please ask and seek answers. Specific individuals and their contact information have been identified and provided. Feel free to use this valuable resource.*

*Princilla Smart Evans  
Editor*

\*Note: The following definition is taken from Excerpts from the  
National Science Foundation Program Solicitation #NSF0160



*Informal learning, in contrast with formal learning, occurs outside formal classroom settings and is not part of a school program, activity, or assignment. Informal learning is voluntary, self-directed, lifelong, and motivated mainly by intrinsic interests, curiosity, exploration, fantasy, task completion, and social interaction. Informal learning can be linear or non-linear and often is self-paced and visual- or object-oriented. It provides an experiential base and motivation for further activity and learning. The outcomes of an informal learning experience in science, mathematics, and technology (SMT) include a better understanding of concepts, topics, processes, and thinking in scientific and technical disciplines, as well as increased knowledge about career opportunities in those fields.*



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## **What Does SEE Expect Children and Families to Learn & Do**

### **Through the Science and Everyday Experiences (SEE) Initiative we expect children and families to:**

- Gain a better understanding of informal science education and science inquiry and how both support in-school science learning.
- Understand how science is connected to everyday experiences.

### **Children and their families can learn more about science by:**

- Visiting science museums, zoos, botanical gardens, planetariums, and other Science centers.
- Watching children or adult science television shows.
- Listening to science radio shows.
- Exploring science topics using resources in the local Library, including books the Internet and other resources.
- Doing family science experiments and projects.
- Reading science newspaper articles.



### **Parents and guardians can foster informal science learning by:**

- Keeping a family informal science journal of experiments and other activities including pictures,
- Enrolling kids in science camps, workshops, or other programs.
- Conducting informal science activities at family events, including family reunions and birthday parties.
- Buying science toys and books.
- Encouraging children to participate in science competitions including science fairs and essay competitions
- Encouraging children to earn science Scout badges.
- Encouraging children to ask questions