



DC NEWS

Science Shines with RAYS

Talking with Marjorie Barr and Barbara Karplus, RAYS Program Directors

One of The Discovery Center for Science and Technology's flagship programs, RAYS (*Reading Awakens Young Scientists*) was designed specifically for younger elementary school children. Program Directors Barbara Karplus and Marjorie Barr lead an all volunteer team to bring a combination of animated storytelling and hands on science to local classrooms. Together Marjorie and Barbara bring a wealth of diverse experience to the program.



Teaching was a second career for Marjorie, (*pictured left*) having started as an Analyst for LAUSD's Human Resources Department. In addition to her Masters Degree in Psychology, Marjorie holds a Multiple Subjects credential and taught for the Moorpark School District, as well as LAUSD. As a Science teacher, Marjorie ran one of the few Science labs at the elementary level for LAUSD.

Barbara (*pictured right*) is also an experienced teacher and has worked at the elementary, middle and high school levels. She is currently a substitute teacher in the Conejo Valley Unified School District with credentials in Math, General Science, English, Multiple Subjects and Special Education. Barbara is also a California Registered Tax Practitioner and prepares tax returns for individuals and small businesses.



Both RAYS leaders have been interested in science since childhood. Barbara started young, helping her father, UC Berkeley physicist, Dr. Robert Karplus, develop and pilot an elementary school science curriculum through the Science Curriculum Improvement Study ("SCIS"). "My father brought many experiments home to try out on me and my six brothers and sisters." Marjorie also started early and enjoyed "chemistry experiments" at home."

Hands on science programs anticipate and will complement the recently developed Next Generation Science Standards. Barbara is looking forward to implementation of the new Standards, which view "science as both a body of knowledge and an evidence based, model and theory building enterprise that continually extends, refines, and revises knowledge" (<http://www.nextgenscience.org/three-dimensions>).

RAYs is helping to develop the next generation of local workers and leaders. The program "combines science and literature, blending rational and creative thought patterns." It also taps into "the natural imaginative curiosity of younger elementary students to develop scientific strategies" notes Barbara. Marjorie agrees, observing that "the critical thinking skills, science vocabulary, concepts and excitement created by hands on activities are great for developing an interest in Science in children at a young age."

When not working with RAYS, Marjorie enjoys traveling, spending time with family and friends and dabbling in painting, making jewelry, Barbara is the co-leader of Mission Outreach for her church and is a licensed Foster Parent. Down time for Barbara includes playing Ultimate Frisbee and Bridge or reading at home.

Marjorie has been volunteering with RAYS for three years and finds it "personally satisfying to help children and share your own knowledge and skills." Barbara has been with the RAYS program since 2009 because she "would like to make a positive difference in the lives of others. As Margaret Meade put it so well, 'Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.'"



Be part of the fun!

The Discovery Center relies on the support of people like you to bring our programs to the community. For more information on RAYS, and other **Programs**, go to discoverycntr.org. While there, click on the **Get Involved** tab for information on volunteer opportunities - your timing is perfect with the first day of school right soon upon us! And remember, as a 501(c)(3) nonprofit organization, your generous financial support is tax deductible. Thank you for your support!