

# Understanding Science Fair Projects

*Strategic Learning Initiatives  
Chicago, Illinois*

**A**ny adult who has ever gotten involved in a youngster's science fair project can appreciate the practice undertaken by Strategic Learning Initiatives (SLI) in three Chicago schools. "Understanding Science Fair Projects" was only one of more than a dozen workshops intended to involve parents in their children's learning, but what a welcome workshop it was. About 130 parents attended.

Science fair projects often cause bewilderment, anxiety, fear, late nights, and even tears, but they don't have to. That was the message of this two-hour parent workshop, developed in response to parent suggestions on the organization's yearly planning survey.

The workshop began with an explanation of the scientific method and the steps involved in a science fair project. Then, trained parent facilitators demonstrated a science experiment. Working in groups of six, the parents conducted two experiments of their own. They had to determine a purpose and form a hypothesis, decide what materials they needed, explain in detail how to conduct the experiment, and then perform it. As a last step, they recorded the results and drew a conclusion. Each group then discussed and compared its findings with the other groups.

The last workshop activity focused on the Tri-board—the stand-up poster used almost universally to display science fair projects. Parents saw examples of good and not-so-good displays from a judge's perspective. They also received handouts explaining how they could

conduct the experiments they tried at home with their children.

The parents who attended had a clearer knowledge of what a science fair project involves and how they can assist their children. They also gained scientific knowledge so that they and their children can work with the same information. "I did not know the difference between a purpose and a hypothesis prior to today," said one parent. "The workshop was useful because parents actually did the science experiments and took part in the whole process."

Hands-on workshops are a hallmark of SLI, a Chicago-based non-profit organization dedicated to accelerating student and adult learning through best practices from education and the private sector. SLI's Parent Engagement Component conducts about 15 such workshops annually in each school, which help parents learn strategies to use at home to continue their children's learning. Other topics include analytical thinking, math games, and positive self-image. The workshops, held in the morning just after school starts, usually draw 25 to 30 parents each. These workshops support the belief that home is a place of learning; parents are vital partners in helping their children become better learners; and parents should be "leaders" in learning. The organization gives parents the tools to increase learning for the whole family.

For the science fair workshop, school and SLI staff members paid particular attention to safety and to choosing experiments that could be conducted safely at home. The school sup-

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plied the materials for the experiments parents conducted.

In evaluations, parents reported their impressions, and the successes and challenges they encountered when trying the experiments. One parent said she didn't know science could be so much fun. Another proved that the workshop met its goal: "This is the first year my child has made it to the school Science Fair."

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