

## Why Do We Need GEMS Clubs?

Our experience running GEMS clubs since 1994 has shown us that girls function differently in single gender groups, particularly when it comes to learning and experiencing things that are intimidating or possibly perceived as difficult, such as science or technology.

Girls want to learn math and science but can have classroom experiences that put them at a disadvantage. For example, many studies show that teachers pay more attention to boys or students who “call out” answers, rather than choosing students equitably. Other teachers may use girls as behavior management tools, requiring students to sit boy-girl so that the girls act as role models or conversation stoppers.

Group work with mixed genders can be problematic, particularly with science and inquiry learning, with many boys taking over the experimental work, leaving the girls to take data or serve as the “recorder” for the group. Many girls tend to hang back in mixed gender groups, thereby losing the opportunity to actively participate in the science or technology or engineering. Girls also tend to stop trying when things become difficult, thinking that they just can’t learn it. Presenting STEM as difficult does not challenge many girls; instead it makes these fields daunting and unapproachable.

Many girls come to elementary school with little or no experience with “tinkering”—building with Legos™, helping a parent repair household items or open computers, etc. Girls also may have received many spoken and unspoken messages about STEM from parents, teachers, and television that math, science, and similar fields are not for girls, are too hard or are not valued.

GEMS clubs address all of these concerns and more. When you start a GEMS club, you immediately send the message that girls can do STEM, and that they are valued as a group and as individuals. You provide a risk-free environment where there is no competition other than doing your personal best. Emphasis is on learning and having fun, not being the fastest or loudest. All girls get to do all of the activities, and all girls get to experience success. Girls leave GEMS clubs meeting excited about their experiences and eager to share their learning with others.

