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MY CONTRIBUTION

Benefits of Origami: More than “Two-Fold”

BY JANET RIVERA MEDNIK

The Japanese art form of origami demonstrates how a precise sequence of careful folds and crisp creases can transform a plain square of paper into a beautiful piece of art. But can the ancient art of paper-folding hold the key to boosting academic achievement among boys? Can it even foster a new generation of critical thinkers?

Absolutely, says Arden “Georgi” Thompson, a former Maine teacher of gifted students, and past recipient of the Presidential Award for Excellence in Science Teaching. In 2006, Thompson began incorporating the lessons of origami in her classroom as a way to bolster interest in math among girls. It didn’t take long for her to become convinced that origami could unlock mathematical potential, particularly among boys.

Thompson’s use of origami in the classroom aligned with research showing that boys and girls *do* learn differently. In *Why Gender Matters*, Leonard Sax explains that girls possess more P cells, which are adapted to seeing color and texture; while boys have more M cells, which are best adapted to detecting location, direction, and speed.

“The girls would usually read the directions as they folded, but the boys told me that they just looked at the pictures and only read the text when they got stuck,” explains Thompson. “The boys put



Arden Thompson helps students prepare for tomorrow’s careers.



their modules together in different, complex ways and invent new shapes that [aren’t] on the instruction sheets.”

To encourage “outside the box” thinking, Thompson snapped and displayed photographs of these young mathematicians and innovators. Before long, her classroom resembled an art gallery, filled with proud, smiling portraits of boys who had successfully challenged themselves to use geometry concepts to create and construct with their minds as their guide, and paper as their only tool.

Though Thompson spent most of her 33 years of teaching with students deemed “talented and gifted,” the 76-year-old teacher scoffs at the label. “The truth is, every kid holds a gift. It is our job as teacher to find the ‘gift’ in

students and to nurture it.”

In a paper entitled, “Folding Boys Back into School,” Thompson says, “Because certain students are not adept at doing the kind of limited academic tasks we set before them, they begin to consider themselves failures and begin to shut down and dislike school. Origami offers a way to capture the attention of these children and provide them with a way to demonstrate their real gifts.”

Thompson, 76, now serves as an “artist-in-residence,” teaching students and teachers around MidCoast Maine, how folds, creases, and imagination can unleash a gift of seeing “what isn’t there, but could be,” a trait vital to advanced mathematicians, architects, engineers, and inventors.