In The Peck School’s Idea and Design Lab, the catchphrase Think, Question, Do is colorfully posted to the walls next to laser-cutters and smart boards, sewing machines and 3D printers. But how does this axiom speak beyond the tools in that room—beyond the room itself—and become a roadmap showing how children learn?

Agency by Design (Abd) is both a research initiative and teaching framework that helps educators address this question. Begun in 2012 through Harvard’s Project Zero at the Harvard Graduate School of Education, AbD’s initial work delved deeply into the whole of maker education and pedagogical research. Researchers hypothesized that by fostering an innate sensitivity to design—the ability to look closely at something, and see how parts interconnect and relate to a whole—students can better realize their own agency in taking responsibility for their learning. Which is, of course, the ultimate goal of maker education: a growth mindset in which students are empowered to shape their own worlds.

Bruce Schwartz, Director of the Osborne Idea & Design Lab, along with Lower School Technology Integrator Jen Garvey and Lower School Science Teacher Dr. Kathy Kennedy, have been using Agency by Design to guide lessons in Peck’s K.I.D. and Idea & Design Labs—where it’s often easier for young minds to visualize and begin developing these thinking patterns through hands-on, STEAM-related projects. The goal is to begin transferring these modes of thinking outside the labs into traditional classroom spaces.

“We spent a year looking at frameworks,” said Jen Garvey. “We’re not just looking at how to rethink products and inventions, we’re trying to rethink processes. And AbD’s thinking routines can be used for any grade...for example, using ‘Looking Closely’ to observe the natural world might have a different outcome for a first grader than an eighth grader, but that pattern of thinking is the same at any level.

And the more these patterns are used, the more they become habits.”

Bruce Schwartz adds that “Even though in the labs we focus on bringing things to market, we emphasize the process over the product. We’re bringing to light the thinking patterns that are applicable equally in making a device, or breaking down a piece of music, or writing an essay. We want students to take the thinking and the questioning that they do here in this lab, and use that mindset in every other class, and outside of school.”

The AbD framework is responsive and flexible; it encourages collaboration and community, and helps students visualize connections and patterns. It speaks to young people’s innate curiosity about the world around them, providing ample room to ask why, to explore and tinker, see results, and go back again. To put it another way, the framework acts as a set of teaching “instructions” that can be used to get students of all ages to begin examining, questioning, and reasoning—no matter the age, or subject matter.

The framework is circular, and can be used in parts or as a whole. It encourages three core capacities: Looking Closely, Exploring Complexities, and Finding Opportunity. Each of these is transferable to any academic process—from designing and prototyping a paper-cup bobsled to critically analyzing literature. The framework also includes ‘thinking routines’ that help reinforce necessary habits of mind to achieve these capacities. For example, the first grade recently used AbD’s “What If” thinking routine to imagine how they could better design a house for a partner, practicing divergent thinking (imagining new possibilities) and convergent thinking (deciding on an effective approach to redesign a system.)

All of Peck’s teachers will be trained in the Agency By Design framework over the next three years.