

The Puzzle School

The Puzzle School is an Innovation School in the exploratory stage. We are working toward a high school, 6-12, or K-12 model (depending on district needs) somewhere in the greater Boston area. We are currently exploring working with Cambridge Public Schools.

The Puzzle School design is based on the observation that there are certain skills (described below) that are widely applicable to the human experience. These skills are crucial not only to the learning process and the creative process, but also to self-direction, relationships, civic engagement, and the coordination and support of many people working together (e.g. a school or workplace).

The puzzle metaphor extends beyond simple jigsaw puzzles and captures how a scientist or a writer might talk about puzzling something out or how their work feels like solving a puzzle (see below for quotes demonstrating the wide-ranging relevance of the idea). However, even the simple jigsaw puzzle encapsulates many of the skills we seek to support, and we believe the enjoyment of this activity by many people for over 250 years is further evidence of how deeply ingrained and important these skills are to each of us.

The puzzle metaphor seeks to align everyone within The Puzzle School (e.g. students, teachers, administrators, and parents) around the development and use of these skills through a shared vocabulary and identity. We believe that students who attend The Puzzle School and staff who work there will come to identify themselves as "puzzle-solvers" or people who can use the skills described below to tackle complex and ambiguous challenges such as teaching, learning, working toward future goals, running a school, etc. We believe that this identity and the shared vocabulary that will define much of The Puzzle School will lead to a healthy environment that is respectful of everyone involved and continuously improving and evolving to meet the needs of students today as well as in the future.

Students who graduate from The Puzzle School will be well-practiced in these skills and as such will be more prepared to handle the ambiguity of challenges and goals that lie ahead of them as they gain greater independence in society. They will be practiced at examining their own lives and working toward goals that are personally important to them while also respecting the goals and challenges of people around them and of their community. This does not exclude traditional subjects but rather provides a foundation on which students and teachers can more effectively approach teaching and learning a wide range of subjects.

Specific examples of activities we will explore at The Puzzle School have been provided below.

Puzzle-Solving Skills

The following is a list of skills that the puzzle metaphor encourages. It is not meant to be a complete or definitive list nor is it meant to describe a specific orderly process. Any of these skills can be deployed at any time while solving a complex challenge.

- De-composition
 - They understand that everything around us is more complex than it initially looks. People are more complex than their gender or race, skills are more complex than an expert makes them look, long-term goals are comprised of many baby steps, etc.
- Observation / Asking Questions / Empathy / Reframing
 - There is a whole subset of skills involved with the process of trying to understand either the whole or the pieces that comprise the whole. Increasing competence over a range of these skills can help people gain deeper insights and understand things more effectively.
- Developing Hypotheses / Brainstorming Ideas
 - Again there is a subset of skills and techniques around how one develops hypotheses or which baby steps can be taken toward a goal.
- Testing Hypotheses / Seeking Feedback
 - A puzzle-solver looks at all actions as an opportunity to learn more and improve future hypotheses. A wrong hypothesis is not a failure, but an expected learning opportunity that leads to a better hypothesis.
- Understanding Interactions and Emergent Effects
 - It's easy to lose the forest through the trees when you are focused on individual hypotheses. A puzzle-solver pays attention not only to individual hypotheses but how all of the pieces are fitting together, interacting with each other and potentially creating emergent effects that were not obvious if a hypothesis was tested in isolation.
- Nonlinear Progress
 - A puzzle-solver is not overly discouraged by a hypothesis that did not work out exactly as planned. They recognize that every hypothesis and action improves their understanding and they use that improved understanding to make further progress.
- Reflection
 - Often, as a better understanding is gained, the original goal may no longer be appropriate, or an original, overarching hypothesis may be proven wrong. A puzzle-solver is skilled at avoiding blind dedication toward a goal.

Specific Activities

The following are a few possible activities that demonstrate how the puzzle metaphor can influence a wide range of experiences within a school.

- Self-Direction Continuum (Independent Projects & Internships)
 - All students will be supported in designing and executing independent projects and small group work of their own design and internships in their area of interest. Students who need more support to navigate these ambiguous challenges will receive it as each student moves along the continuum of self-knowledge, independence, and self-direction. Mentors from the community with expertise in the subject area will further support students in their work.
- Holistic School Assessment
 - The Puzzle School will seek feedback from students, parents, and teachers on a regular basis through surveys and text messages. This feedback will help The Puzzle School improve everything from the students' academic experience to their social and emotional experience to the logistical and communication challenges of interacting with the school.
- Program & Resource Laboratory
 - The Puzzle School will carve out space and time to act as a laboratory for new programs and resources. As students test new ideas they will provide feedback and collaborate around improving each idea, encouraging students to not just use each resource, but to analyze the resource, think about how to improve it, and practice providing feedback on it. These experiences will help students move away from a consumer mentality and more toward becoming a designer of their own educational experiences.
- Retrospectives
 - On a weekly basis students and staff will have retrospectives. Retrospectives allow everyone to provide positive and negative feedback about the school environment in a safe manner. The process allows students to practice their observation and introspection skills, gives students a greater voice in the school, and provides opportunities for students and staff to understand the perspectives of each other.
- Negotiated, Competency-Based Requirements
 - Graduation requirements will be competency-based, allowing students to complete the requirement at any time and move at an accelerated pace or get extra help when necessary. Students will be able to negotiate requirements, encouraging a dialog between the student and adults regarding what skills will best serve that student in college, career, and life.

Quotes

"Math, it's a puzzle to me. I love figuring out puzzles."

~ Maya Lin

"And so I started trying to learn the law. I was never successful in getting legal relief for myself, but I really enjoyed the process of solving this legal puzzle, writing out the solution and then sending it off to the court to get an answer."

~ Shon Hopwood

"Once I began doing stand-up, I didn't get a kick out of the applause or the attention, but I did get a kick out of the puzzle aspect of it, searching for the right bit, adding another few pieces each night until the bigger picture appears. That's the appeal: the challenge of it."

~ Stephen Merchant

"So this was the big secret historians keep to themselves: historical research is wildly seductive and fun. There's a thrill in the process of digging, then piecing together details like a puzzle."

~ Nancy Horan

"For me, writing a novel is like solving a puzzle."

~ Mohsin Hamid

"As a kid, I was into music, played guitar in a band. Then I started acting in plays in junior high school and just got lost in the puzzle of acting, the magic of it. I think it was an escape for me."

~ Michael J. Fox

"When you write non-fiction, you sit down at your desk with a pile of notebooks, newspaper clippings, and books and you research and put a book together the way you would a jigsaw puzzle."

~ Janine di Giovanni

"I tell people all the time, as I was going through my process of being a comedian or being an actor and a writer at 'SNL,' I tell people that everything you do is all a piece of your puzzle to determine where you're going to end up at."

~ J. B. Smoove

"Once I get on a puzzle, I can't get off."

~ Richard Feynman