Observations

The Puzzle School philosophy is based on a few core observations:

- In order to do your best work you need to be in an environment where you feel trusted and respected. Maybe more importantly, though, you need to care about the work. It can't be coerced. Your best work can only come if you legitimately care about it.
- The most effective learning tends to come when information is presented in different formats, at a pace that can be controlled by the learner, and in a manner that allows for non-judgmental "failure." Testing your understanding, receiving feedback, and developing a better understanding based on that feedback is a crucial part of the learning process.
- The range of skills and knowledge used by adults is extremely diverse and not limited to the subjects taught in school. Too often, though, the only time students have to explore the diverse options that exist in the real world and cultivate their own personal interests and talents is outside of school hours.
- The relationships formed through school are often as important or more important than what is learned. Students consistently benefit from healthy relationships with adults who understand who they are, what challenges they face, and what their goals are, especially if the adults act as advocates for the student.

The Puzzle Metaphor

The name, The Puzzle School, is a particularly important part of the vision. The puzzle metaphor provides the foundation for physical K-12 schools that reflect the above observations:

- **Puzzles are about the journey, not the goal.**
  We engage in puzzles because the process of solving the challenge is enjoyable and rewarding. Learning and our growth as individuals should be no different. The Puzzle School will give students greater ownership of what, how, and at what pace they learn so that students can find a process they appreciate, cultivating a lifelong love of learning.

- **Puzzles engage us in deep, interesting challenges.**
  Given the time and space to tackle a puzzle of our own choosing we will often engage deeply, losing ourselves in the problem, persisting until we are successful. By allowing students to co-design a personalized curricular path around fascinating and challenging programs and giving them more opportunities to explore their personal interests, The Puzzle School will engage students more deeply in learning and spark their curiosity about the world.

- **Puzzles encourage an iterative, design-thinking mindset.**
  The Puzzle School will infuse a problem-solving, design-thinking orientation into all aspects: the student experience, the pedagogy, and the administrative functioning of the school itself. Observe deeply. Develop strategies. Test strategies and iterate. Piece things together looking for fit. Expect frustration. Learn from setbacks. Iterate towards success. This process will inform how students approach their education, how they interact with the school, how the school is governed, the development of programs, etc.

- **Puzzle teach the creative process.**
  Puzzles range from structured to open-ended, ambiguous challenges. Creative work in general (writing, software engineering, politics, entrepreneurism, etc) can often be described as feeling like "solving a puzzle". The Puzzle School will seek to provide open-ended learning opportunities such as internships and independent projects that reflect the diverse skills, knowledge, and creativity valued in the real world.

- **Puzzles build persistence.**
  As Edison said, "I have not failed, I've just found 10,000 ways that don't work." When solving a puzzle, failure and mistakes are expected. "Failure" is simply part of the learning process. The Puzzle School will be competency-based, supporting frequent "failure" by allowing students to persist, with support and feedback, as long as necessary to achieve mastery.

- **Puzzles foster self-esteem.**
  The sense of accomplishment that one feels as one progresses through a puzzle and eventually completes it can help build confidence. Confidence in one's ability to strategize and ideate. Confidence in one's ability to persist despite missteps. The confidence to tackle more complex challenges. This confidence can help students prepare for a complex world.

Throughout their time at The Puzzle School students will work closely with advisors and mentors, developing deep relationships that will support students as they engage in increasingly complex and open-ended challenges reflective of real world work.

A Narrative

Imagine walking into The Puzzle School. The space immediately catches your attention as it is filled with interesting projects, books, and challenges. Student work adorns the walls, from engineering projects to video games to student-produced art, movies and poetry. Books are everywhere and there are specific areas dedicated to various activities, such as a makerspace, a debate space, a reading and writing room, etc.

Your guide asks if you have any questions.

"The minute I dropped out I could stop taking the required classes that didn't interest me, and begin dropping in on the ones that looked interesting."
– Steve Jobs

"So is this a project-based learning school?" you ask, pointing to the many projects adorning the walls.

"No, not exactly," she begins, "we definitely do a lot of projects here, but it's not exclusively project-based. The goal of The Puzzle School is to be responsive to each student, to give them as much ownership over the process as possible, and try different ways to help students make progress. This definitely includes projects, but values other techniques, such as direct instruction, depending on the situation."

"Oh, so is every student doing different things all the time?" you ask, nervous that it sounds a little too loose.

"Yes and no," she says. "Everyone here understands the importance of fundamental skills like reading and writing, and social-emotional skills, etc. but teachers are always working to find different ways to practice those skills. A student could work on their own, in a group, online, in a class, with a tutor, etc.. The teachers really try to have a conversation with each student to figure out how best to help them learn."

"It sounds a little chaotic," you say, still concerned that someone could get lost in all of the flexible options.

"It's a tough balance to maintain." She looks around the school, observing the diversity. Students of all ages and races, with and without disabilities interact with each other in front of her.

 "I don't think we could support such a diverse student body if we required all students to do the same things at the same time. Every student has a different set of skills. Even students with learning disabilities are going to be better in some areas and more challenged in others. The teachers have a lot of respect for the students and try to treat them like individuals with different talents and interests rather than one big group. It may not be as orderly as some other schools, but I think the flexibility it provides is a real strength."

The Logistics

The Puzzle School will be an evolving environment that constantly engages in a conversation with students, families, teachers, and communities, collecting feedback and trying to improve.

The Puzzle School will be open 8am - 6pm, year round to meet the holistic needs of parents and students, but will be flexible so that families can spend time with each other on convenient schedules. Students will be able to work more independently, taking breaks and vacations when desired without having to worry about missing fundamental lessons and falling behind.

The Puzzle School will extensively leverage all available resources and will constantly try new ideas rather than looking for any specific, dogmatic approach. In this sense The Puzzle School will evolve as new ideas are tried and replace existing practices, ensuring that The

"As soon as children find something that interests them they lose their instability and learn to concentrate."
– Dr. Maria Montessori

Puzzle School reflects the needs and interests of students, parents, and the community as effectively 50 years from now as it will today.

Programming

The Puzzle School will develop both multidisciplinary programs as well as programs that specifically focus on fundamental and popular skills such reading and writing, math and science, social-emotional skills, building a website, communication and debate, etc.

A few examples of possible multidisciplinary programs include:

Plays from Scratch: A group collaboration to write a play and either act it out or animate it through Scratch (a software engineering tool), recording each character's voice to bring it to life.

Structural Strength: Can you build a wall to stop a flood? Can you build a container that can protect an egg from a fall? How do structures in the real world incorporate different structural techniques while maintaining a high quality aesthetic as well?

Elder Advice: Video record interviews of parents and grandparents asking them about the most important lessons they've learned in their lives. Compare the advice from your family with other families and advice found in other sources such as commencement speeches and reflect on how those lessons apply to your own life.

Signs of Life: What does it mean to be alive? Take nature hikes and study different biological environments, read philosophical texts on what it means to be alive, and program robots with basic artificial intelligence that are responsive to feedback.

Physical Music: Explore diverse music styles from around the world and how they are created. Perform with musical instruments you've created from recycled materials while learning about the physics of how each instrument works.

In addition to developing interesting programs The Puzzle School will strive to create an interesting environment as well, allowing students to engage in interesting open-ended activities when not involved in a specific program. The school will be filled with student work to celebrate and inspire other students. Books will adorn the walls and will be available to borrow. Arts and crafts areas and makerspaces will be designated and open to students. Debate clubs and other student organized activities will be integrated into the school day.

In general the school day will be structured but flexible. Programs will be offered at specific times, but every attempt will be made to accommodate students who have conflicts. Additionally students will be encouraged to engage in independent projects and look outside of the school walls to find classes online and in the local community and potential internships that reflect their personal interests.

"Do not train a child to learn by force or harshness; but direct them to it by what amuses their minds, so that you may be better able to discover with accuracy the peculiar bent of the genius of each."
– Plato