



Observations

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

- You won't learn effectively if you don't care about the work or see the value in it. Your best work can only come from something you care about.
- You won't learn effectively in an environment where you don't feel trusted and respected.
- Every person is different. You can not expect students to do the same activity at the same pace all the time.
- Deeper learning requires failure. Testing your understanding, receiving feedback, and developing a better understanding based on the feedback is a crucial part of the learning process.
- Too often the only opportunities students have to explore their personal interests and talents are outside of school hours.

"If you want to build a ship, don't drum up people to collect wood and don't assign them tasks and work, but rather teach them to long for the endless immensity of the sea."

– Antoine de Saint-Exupery

The following sections provide different perspectives on how The Puzzle School might work based on these observations.

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. You begin by asking why it's called The Puzzle School?

1. Puzzles are activities that we take on because they are interesting and challenging and The Puzzle School believes that the best learning takes place when a student is personally interested and the challenge is appropriate to their skill level. All of the programs are designed to be interesting and accessible to a wide range of skill levels and students have many opportunities to explore their own interests through independent projects, internships, etc.
2. We solve puzzles using design thinking, a process of observation, ideating hypotheses and testing them, learning from the feedback and iterating. The Puzzle School approaches everything from running the school to developing programs to supporting students through this lens of constant iteration and improvement.

3. The goal of a puzzle is to fit the pieces together into a cohesive whole. The Puzzle School's primary goal is to help empower students to be able achieve goals that are important to them in life. In order to do so The Puzzle School draws on all available resources, ranging from in-school programs to internships at local businesses to online resources to programs and classes at local colleges. Students, teachers, and parents all work together to figure out what "pieces" fit best in order to provide best experience for each student.

"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

"That's interesting, so is it a project-based learning school?" you ask, still trying to process her description of the school.

"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 ways to practice those skills that the students appreciate. 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, but I don't think you could work with everyone here without some flexibility." 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.

"The student body here is really diverse. I don't think you could maintain the diversity you see 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 Philosophy

The puzzle metaphor provides a nuanced way for everyone involved in The Puzzle School to think about education.

The primary "puzzle" will be to figure out how to piece together resources from inside and outside the school walls to best meet the needs of each student, with staff, students, and parents all playing a role in this process. A combination of student interests and fundamental skills will drive this process, with staff and parents inspiring students with new ideas, providing support, advice, and networking.

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

The puzzle metaphor extends beyond this effort, though.

Puzzles embody both "interesting challenges" and Design Thinking. Everyone involved with The Puzzle School will engage in Design Thinking in an effort to both create an interesting and challenging environment as well as support students as they explore their own interests.

The environment will put the process of experimentation front and center. Students and faculty will be constantly involved in a process of testing ideas and receiving feedback, making small changes to improve the experience.

As students progress through The Puzzle School they will have a great deal of control over what they study and how quickly they progress. In doing so they will become practiced at taking control of their lives and education, communicating and working with other people, and leveraging the design process to achieve their goals. We believe these skills will serve students well no matter what path they choose.

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. Furthermore The Puzzle School will extensively leverage technology and all available resources, constantly trying new things and learning from them rather than looking for any specific, dogmatic approach. In this sense The Puzzle School will constantly evolve as new ideas are tried and replace existing practices, ensuring that The 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 primary goals of Puzzle School programs are to be both interesting/inspiring/important and appropriately challenging for a range of ages and abilities. Programs will often be multidisciplinary, but there will also be programs that specifically focus on fundamental and popular skills such as reading and writing, math and science, social-emotional skills, building a website, etc.

A few examples of possible 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.

The History of Time: Explore how time has been kept throughout history and the ramifications on everything from farming to financial markets to smart phones. Create artistic versions of timepieces from different periods, ranging from sun dials to candle clocks to pendulum clocks to simple watches to sell in an online store.

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.

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?

In addition to developing interesting programs The Puzzle School will strive to create an interesting environment as well, making it possible for 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. Highly recommended fiction and nonfiction books will adorn the walls and will be available to borrow. Arts and crafts areas and makerspaces will be designated and open to students. Book 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 video record each class so that students who are unable to attend can stay up-to-date. 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