A Narrative

Imagine walking into The Puzzle School. All around you are interesting activities akin to a museum. Student work adorns the walls, from engineering projects to video games to student-produced art, movies and poetry. To your left you see a makerspace, with students building and fixing everything from new equipment for a drone to furniture to jewelry. To your right is a room set up as a round table where students are debating how much racism is still prevalent in our society and what steps they can take to improve racial tensions.

Down the hall two teachers are co-teaching a multidisciplinary program on time keeping, exploring the history of how we track time and how it has affected everything from financial markets to video games. Students are designing their own time pieces, exploring different aesthetics and engineering challenges. They discuss how they might approach creating a business in order to sell their designs. As the program progresses the students will design their own online marketplace where they can attempt to market and sell their creations to the real world.

A number of other students are milling around the area in front of you. A small group seems to be building a contraption of some sort out of straws, cardboard, and duct-tape. A number are on their computers developing software projects. A few others are reading fiction and nonfiction books as part of a book club.

In the back corner you notice a number of students sitting with teachers, going through one-on-one discussions about how things are going, and how the student's interests are evolving. The teachers suggest ideas about classes, online resources, internships or independent projects that the student might find interesting. The teacher also provides some advice about what may be required for the student if they want to pursue certain paths, ranging from college expectations to parental concerns to what skills employers may be looking for in a given field.

You also notice that there aren't as many students in the building as you expected. You ask a passing student and they explain that many students are out at internships or taking classes offered in other schools and organizations throughout the city. The flexible schedule also allows students to take vacations with their families at different times, so some students are currently away on vacation. You ask whether this is disruptive at all or if students miss things when they are away. The student replies that, while you may miss some things, most everything is recorded and available online so you can keep up with any programs that you are interested in even if you can't be there physically.

"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

You ask a student why the school is called The Puzzle School and she says it's primarily about three things:

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, resulting in a nonlinear path toward success where occasional setbacks or slow progress are expected. The Puzzle School approaches everything from running the school to developing programs to supporting students through this lens, constantly trying to create an environment that facilitates growth for everyone involved.
3. The last aspect is about the puzzle pieces. 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 a personalized experience.

"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

The students continue, "in general everyone is doing interesting work and seems interested in learning more and supporting each other".

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

The student thinks for a bit. "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 them.

"Too many people would be bored or frustrated if we were all required to do the same things. The teachers here have a lot of respect for us. They treat us 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.

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 experimentation front and center. Students and faculty will be constantly involved in an process of testing ideas and receiving feedback, making small changes to improve the experience while ensuring that the environment is stable enough to avoid confusion.

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.

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

Programming

The primary goal 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 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. Create and perform with musical instruments 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