

⚡ Teachers : Gearing Up The Future ⚡

By: Nikita, Aashi, Riya, Aadya, and Aniera

#96036A

Team: Smart Cookies

Downingtown, PA



Our Team

We are team 96036A, the Smart Cookies!! This is our second year doing Vex IQ. We enjoy how VEX IQ challenges us and helps us form a bond and learn new things. We are determined to continue this amazing journey of creativity, thinking, and most importantly FUN. We are proud of all the things that we have achieved! In our first year we qualified for worlds because we won the teamwork championship award, and we also won excellence, design, and many more because of our teamwork and perseverance throughout the year.



OUR TEAM



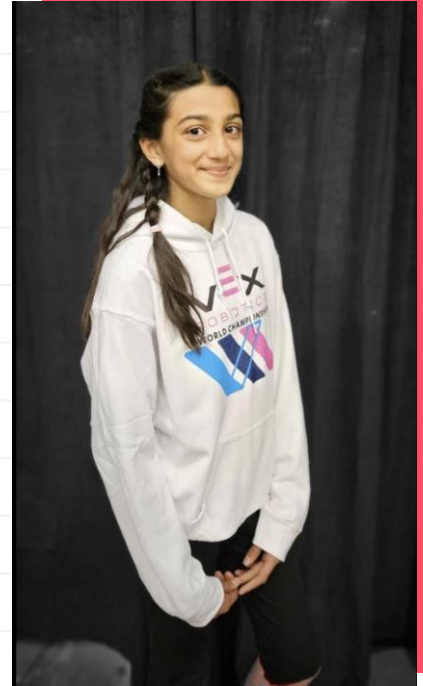
Aashi



My name is Aashi and I am in 6th grade. I absolutely love and take pleasure in robotics! I also love coding! This is my second year doing VEX IQ.

Some careers I'm interested in include being an engineer, programming, or STEM fields.

My name is Riya and I'm in 6th grade. I enjoy driving and building. This is my 2nd year in VEX IQ. One thing I like about Vex is I always have an entire team to rely on when things go wrong. I would like to be a science teacher when I grow up.



Riya



• OUR TEAM



Nikita

My name is Nikita and I'm in 5th grade. This is my 4th year of doing robotics. Some careers I'm interested in are NASA astronaut, chef, writer, ocean explorer, or food critic.

My name is Aadya and I am in 5th grade. One thing I like about robotics is that you can express your creativity. One thing I learned is that there is no "I" in a team. This is my second year of Vex and I can't wait!



Aadya



OUR TEAM



My name is Aniera and I'm in 5th Grade. One thing I love about robotics is, that whenever I don't understand something I can always turn to a friend for an explanation. Some careers I'm interested in are, being a dermatologist, journalist, singer, or a book critic. This is my 2nd year of robotics and I can't wait to continue this journey.



Aniera





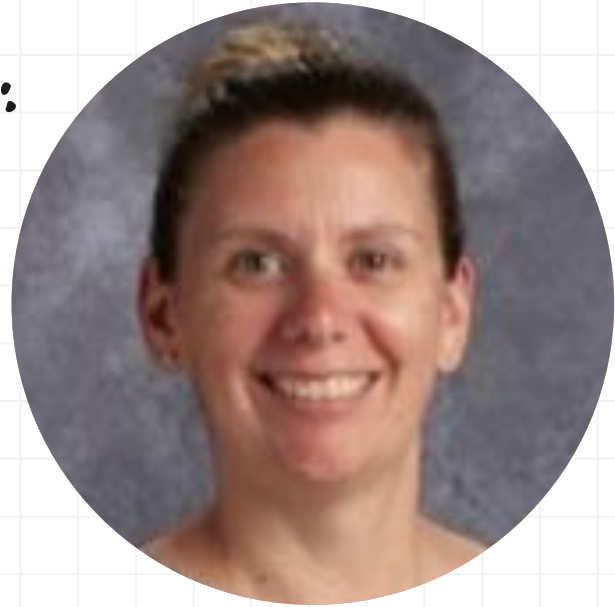
Why we chose teachers

Every successful person has an amazing teacher behind them, but they don't always get the credit they deserve. Although, they're important because they teach us so much, not just about math and reading, but also about life! They're a lot like engineers, solving problems every day by coming up with cool and creative ways to make sure we really understand the subject. Every day when you walk into your classroom and sit down, there is a lovely teacher guiding you into a world of creativity, fun, and learning. We might not always notice it, but they make a huge difference in our lives. So, we thought it's about time we learn more about these everyday heroes we call teachers!



Interview #1

∴ We interviewed Mrs. Bergman, a science teacher at Marsh Creek 6th Grade Center. She used to be a dolphin instructor in Florida Keys. She enjoyed teaching the kids about animal behavior. Mrs. Bergman makes learning a joy and finds unique ways to teach. She engages us by giving real-life examples.





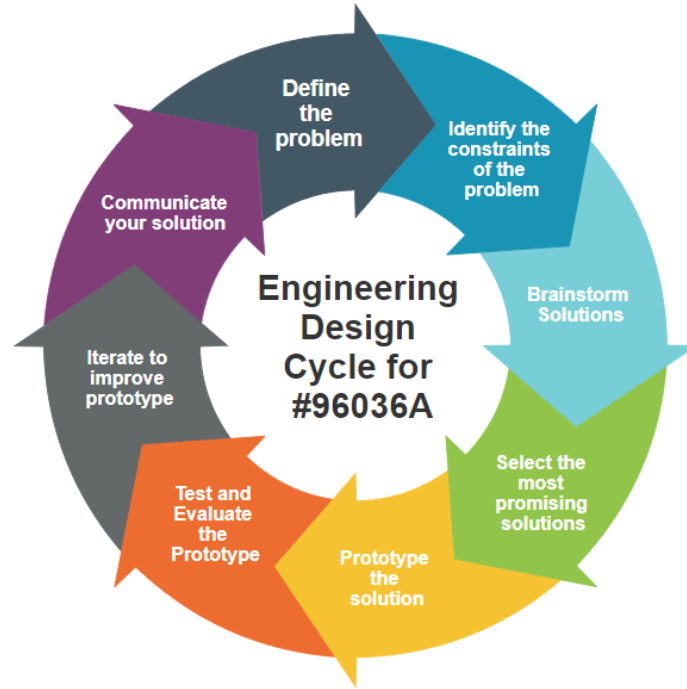
Interview #2

We also interviewed Mrs. Melsch, a science and math teacher at East Ward Elementary School. All teachers use the engineering design process. To get the job of teaching, you need to go to college and get a masters degree. Most of the problems teachers solve are with trial and error as well as learning from others. Teachers create their lessons by collaborating with others and defining the problem.





Our Engineering Design Process



A Teacher's EDP (Engineering Design Process) ∴

- ∴ A teacher's Engineering Design Process starts with choosing the lesson and/or topic that needs to be taught. Then, they find the best ways to teach this information by assigning projects or activities. After selecting a few ways, they use prior knowledge to select how they will deliver the lesson. Then they teach! While teaching they observe what went well and what needs improvement. For example, Mrs. Bergman sees if the lesson was effective, (did the student enjoy it and did they learn from it) in her 1st Period class. If it wasn't, she tries to improve the lesson for her following classes. By doing so, she learns about student choice, and plans her next lesson based on the knowledge she gained in the first one. ∴



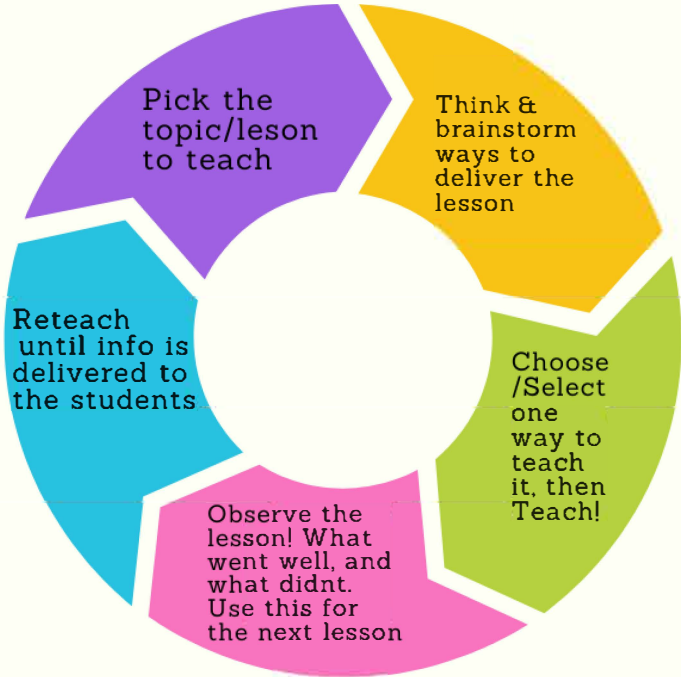


A TEACHER EDP

MADE BY: 96036A SMART COOKIES



- STEP 1:
CHOOSE/SELECT
- STEP 2:
BRAINSTORM
- STEP 3:
SELECT
- STEP 4:
OBSERVE
- STEP 5:
REPEAT



★ Our EDP Compared to Teacher's EDP

- We start with defining our problem, but teachers start with choosing what lesson they want to teach. Then we identify our constraints, like size limits, speed, weight, materials, etc. Like teachers, we go on to brainstorming some ways to solve the problem, but teacher's brainstorm ways to deliver the lesson. Again, like the teachers, we pick/select which idea to use. Then, we prototype, we try out our idea and observe what worked well and what did not. After that, we fix or iterate our plan and try again.





VEX Helps Us!

- ∴ VEX Robotics helps us prepare for a better future. Whether we chose to become a teacher or an architect, they all use the EDP Process in some way. When we break down a problem we find a better solution. After doing research on teachers (just one of the millions of jobs) we better understand how much a Robotics Engineering Design Process will help us in the future.





Credits



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Vex Site: <https://www.vexrobotics.com/>

Used Canva for pictures

Teachers: Mrs. Melsh and Mrs. Bergman

THANK YOU!

