DESIGN THINKING & TECHNOLOGY SOLUTIONS

Example: Using Design Thinking to Solve a Problem

A hypothetical example of using design thinking to solve a problem

Problem: at the end of lunchtime, the cafeteria was always full of trash that hadn't been disposed of properly.

The principal first thought to assign teachers to watch the students in the lunchroom and reprimand students who were seen leaving trash. But some students felt this was unfair, and the teachers didn't like having to be the "lunchroom police."

EMPATHIZE

So, a group of students set out to learn why the trash wasn't ending up in the trash cans. They surveyed students and drew diagrams of the lunchroom and the location of trash cans, including the number of trash cans.

DEFINE

After conducting this research, they learned that because the lunch period was so short, students often had to rush to get to their 5th-period class to avoid being tardy and didn't have time to get to the trash cans. They also learned that the trash cans were usually placed in an inconvenient location, far from the cafeteria exits.

IDEATE

They brainstormed lots of ideas for solutions and decided on a plan that included adding 3 minutes to the lunch period, moving the trash cans right next to the exits, and adding several more trash cans. They also planned to make signs to hang in the lunchroom that say, "Don't forget to throw your trash away!"

PROTOTYPE

They asked the principal to try their plan for one month. They would take pictures of the cafeteria at the end of lunch each day. They would also monitor how full the trash cans were at the end of lunchtime each day and talk with students and the lunchroom staff about their opinions about the changes.

TEST

The principal agreed to try the plan out for one month. At the end of the month, they shared their findings with the entire school community. It turns out that the lunchroom was indeed cleaner at the end of the one-month test period. But everyone agreed that the extra trash cans made the lunchroom too crowded, and the cans were often less than half full at the end of lunchtime. They decided to keep the extra time, trash can placement, and signs but decided to get rid of the extra cans.

STEM CAREER CONNECTIONS