

## F.U.T.U.R.E. Recycling Online Challenge

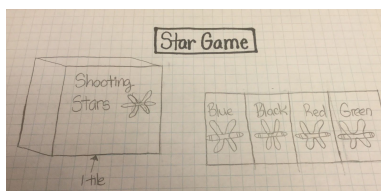
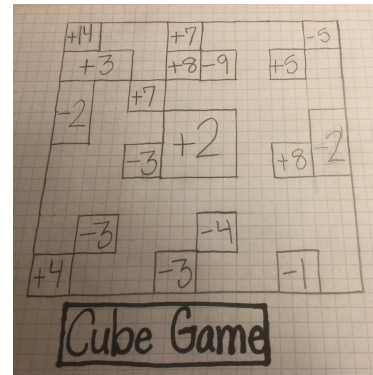
# Math Remediation Game

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When our team decided we wanted to do this challenge, we sat down with our coach to analyse the requirements and come up with some ideas. Once we talked ideas, we ended up going with some kind of game to help the special needs class in our school with both physical limitations and educational boundaries such as addition, subtraction, and multiplication.

Once we had a general goal of who and what we wanted to help, the team started brainstorming designs. We decided to go and talk to Coach Hemingway, one of the special needs teachers, in order to get his feedback about our ideas. He gave us some good feedback and told us some things we would want to adjust in order to benefit the kids more.

As we were thinking about what we had to work with and our goal, we knew we had to have some kind of scoring in order to have multiplication, subtraction, and addition in the game. So, we thought of the fact that we wanted to include aiming which help with throwing and grasping. Then, we started sketching a basic design. One of our team members suggested we do a square made of Vex Arena Tape split up into other squares that each represent a positive or negative number amount that would have Starstruck Cubes thrown into the scoring zones. We decided to go with this design because it incorporates aiming, addition, and subtraction. We tested this game and thought it over. It had almost all of the basic components we wanted.



However, it was missing the multiplying component. So, we ended up making another game that includes someone throwing Starstruck Stars that have different colored vex tape on the ends of the points into a bin made out four Vex Arena Foam Squares, duct tape, and two pieces of paper that have the scoring values of each colored star. Once you have tossed as many stars you can get in the bin in 30 seconds, you do simple multiplication to figure out you're score. An example would be when someone throws five stars in the bin and each star was worth four points each, they would multiply the two numbers together to get their score. This game includes aiming, multiplication, and addition. After testing it, it almost had all of the basic components except for subtraction.

In conclusion, both games are made almost out of all Vex Arena Parts from last year's game, Starstruck. Our goal was to make a fun, educational game that helped special needs kids with physical and educational boundaries. We succeeded in doing this because they wanted to keep it in their room. In combination, these two games completed our general idea and the components within it.