

Whitney
MT-A125-01
November 3, 2001
Dr. Russell Blyth

Hypercube

Making this Hypercube really helped me understand the fourth dimension. I was having a little trouble grasping the idea that there is a place where shapes can exist, but you can't really physically see them. I know that this Hypercube I made is only a third dimension representation of a fourth dimension idea, but seeing a concrete object really helped conceptualize it for me. It also helped that I made it with my own two hands. Sitting at my kitchen counter, I watched the fourth dimension come to life right in front of me with pipe cleaners and straw.

I chose pipe cleaners and straw for a few reasons. The first reason was I couldn't think of anything else that would work. The second reason is because when I was shopping at Wal-Mart, I realized that there were neon colored straws and matching neon colored pipe cleaners. I just couldn't help but think how cute a bright green, purple and pink hyper cube would be.

As I was constructing my hyper colored hyper cube, I tried to visualize the unfolded version of it. I was having a little trouble with this before, but now it is easy to see the different cubes within the folded hyper cube. I was stricken with the density a folded hyper cube must have. In just one cube there exists eight cubes all squished in together. It really is a cool concept. I am so glad that I made this hyper cube because the whole process made me feel like a true mathematician.