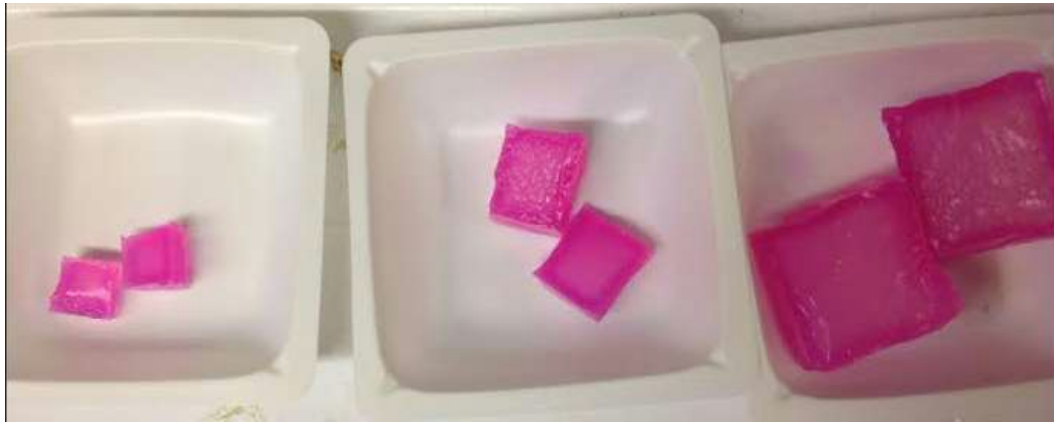


“Statement of Understanding”

What happened, and how do you know?

Claim ← **Reasoning** → **Evidence**



We investigated how far the pink liquid would diffuse into the agar cubes. We used 3 differently sized cubes and soaked them in the pink liquid for the same amount of time. What we saw was that the pink penetrated 50% of the small cubes, but only 10% of the big cubes. Since the cubes were soaked the same amount of time with the same liquid, the only difference was the size of the cube. The small cubes have higher surface area to volume ratio; surface area is where the liquid is in direct contact with the cube and can therefore enter the cube. Therefore, there are relatively more “entry points” for the pink liquid in small cubes compared to big cubes. **Therefore, diffusion happens faster when surface area to volume ratio is large.**