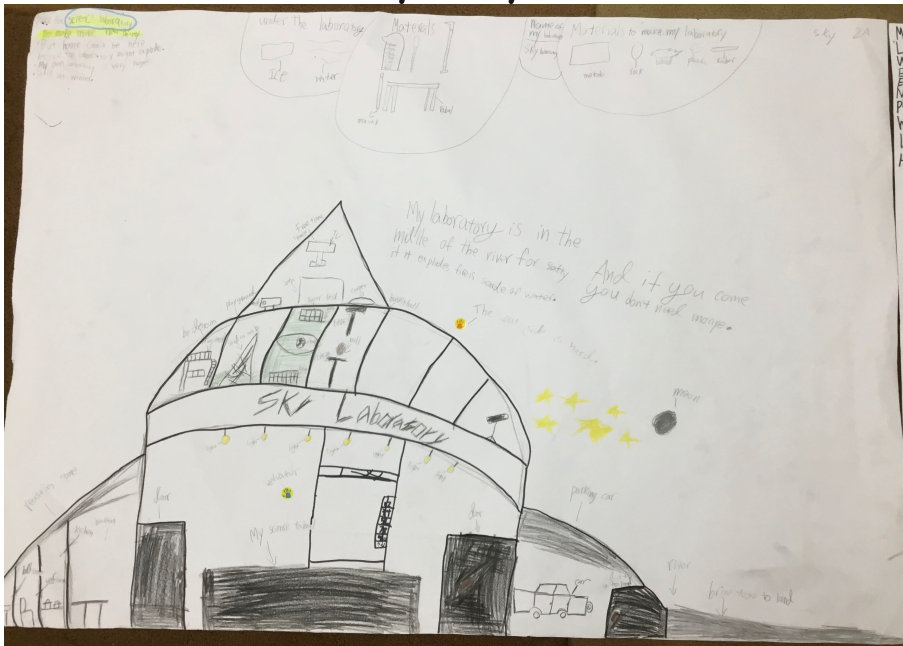


# My Design Journal

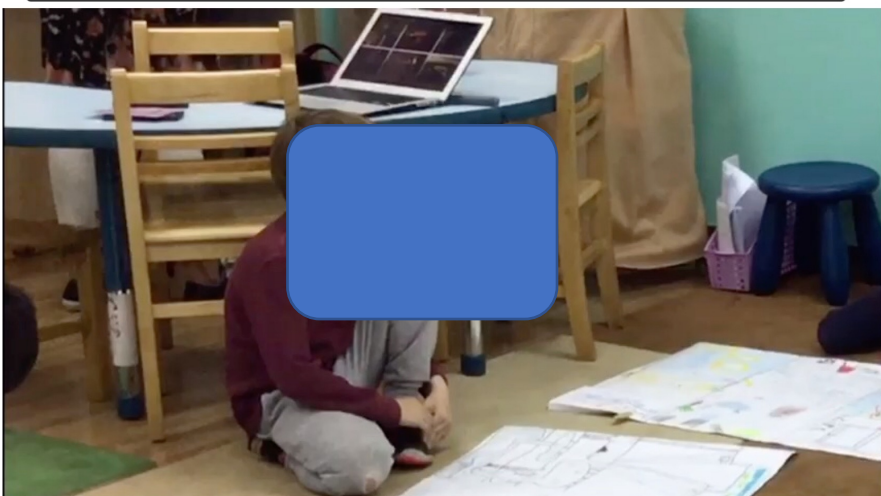
## The Laboratory

### By Sky



This is my science laboratory, my laboratory has 12 rooms and my laboratory is in the middle of a lake. My laboratory has an elevator but if the water touches the elevator it will break and might catch on fire. My laboratory is in the middle of the lake because if it caught on fire, water can let fire go away that is why the laboratory is in the middle of the lake and the temperature in the lake is not cold. The propose of my laboratory is to make new things and do science.

#### step 3- Identifying and sharing my 2 challenges.



The elevator looks like a cuboid. The elevator is right in the middle of the laboratory and there are

two levels in my laboratory. The elevator is my hard part because I need to know how to make the light and how I can make the water not to touch the elevator.

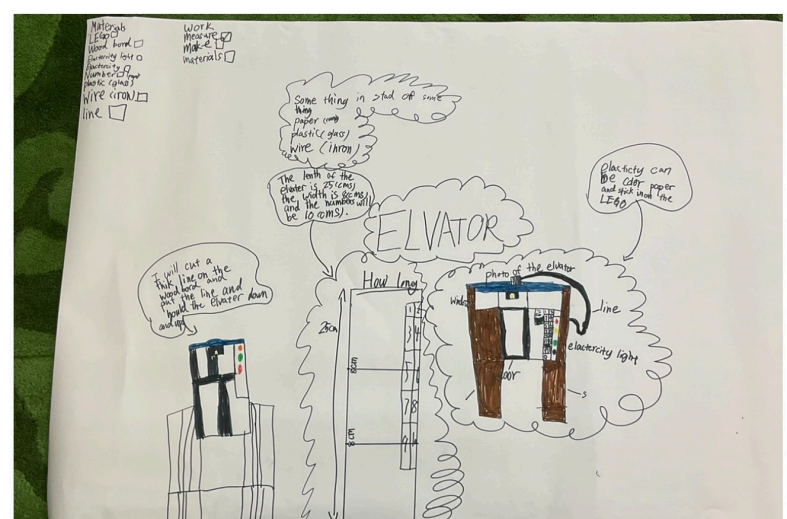
#### step -4 make your stucture on the app.



I made my hard part on the app Makers Expire but I didn't finish it because it takes me a lot of time to make the hard part on the app. When I finished, it I added the elevator on my plan.

There is another hard part, it is the curved top and the last hard part is the inside. The inside has an elevator, door, bridge and a lot of things in the laboratory. The laboratory is very big and on the top of the laboratory is a play room and it's big too.

#### Step-5 Plan the hard part of the structure





I watched a video that tells me how to make a wood elevator and how to make a LEGO elevator the length of my elevator.

I started drawing my elevator. My elevator needs a string to drag it from the box, and the elevator's light are green, yellow, red, and black. Green means you can open the door yellow means just opening the, door red means you can't open the door, black means it is moving up or down. I need a string to hang the elevator up.

#### Step 6- planning



I started drawing and writing my second plan. My second plan is how to make the elevator with LEGO or wood. I chose wood and the light will be a small electricity light. I glued colored paper on it and when I turned the light on, the will be the color of the colored paper. A string will hang up a box and then the elevator can go up and down. The length of the string is 55 (cms) the two pieces of wood on the side is 26(cms) the width of

the elevator is 8 (cms). There is space for the elevator to go up and down, the width of that is 8 (cms), the length of the space that the elevator goes up and down is 25 (cms). The real elevator might be 2 meters tall and it is very long.

#### step 7- creating



When I made the back of the elevator it was all brown. I couldn't see the thing in the elevator so I used the plastic paper. The elevator will be on it and move up and down. I added the elevator, I put a cardboard on both the sides because I need to let the elevator only go up and down.

#### Step 8-Reflect





The light switches are at the back of the hanging string. They are for turning on and off the lights. I put a wood on the string because if I pull the string the elevator will go up, if I don't pull the string the elevator will go down. I colored green, yellow, red, and black is because I know which switch is for which colored light.

Step 9 - test



The pulley rolls the string up and down, that is how the elevator goes up and down. I tested it but many lights didn't work. I tried and tried then I found the solution. The solution is don't open the light a lot or the battery is going to die. I can't use it anymore and it didn't die a lot, that is the solution.

The thing I learned is that structures are very hard to make and the light is hard to make too. I can't turn on and off the light a lot or the light will die, lights need electricity. The materials that a structure needs is a strong foundation, iron to let the structure to stand.

The skills I used is thinking skills because I need to think what materials I need to use and how will I make my elevator, I used self-management skills because I need to manage how long the elevator string needs to be. I worked all by myself to get the project done.

