

Makers Box -August 2019

let's look at everything students made in the Maker Space in August

Year 1

Plants in a bottle - Recycled Planters, Science

Students were introduced to the concept of eco-gardening as they are learning about plants in the classroom. They were asked to collect old plastic bottles and they converted them into planters.



Year 2

Refraction of light – Kaleidoscope, Science

Students were introduced to light and how it travels through different medium. After that, they were asked to collect old Pringles Canisters in which they are building their own Kaleidoscope.

Year 3

Material Exploration, Science

Students are being introduced to different types of materials and how these materials can be machined using different processes.



Year 4

Human Anatomy, Movement and Analogy with robots, Science

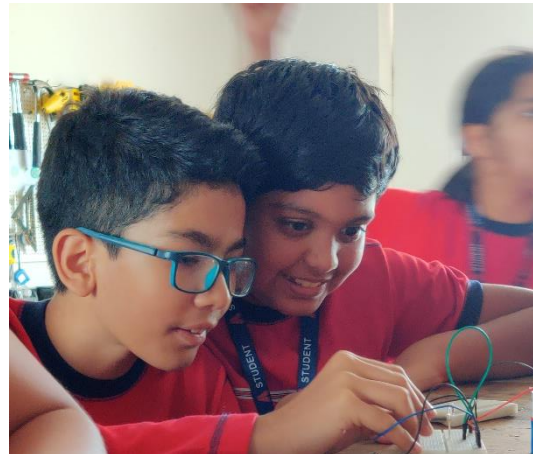
Students of year 4 were introduced to Human Anatomy and Degrees of Freedom. After that, they were asked to establish an analogy between Humans and Robots. How intelligence works, is it same? Can we transfer intelligence in robots? After discussion, students coded their robots using Block Programming.



Year 5

Light Spectrum, RGB Circuits

Students of Year 5 are learning about light. During their Makers session, they were exposed to red green and blue as Primary colours and how these colours can be combined to create any colour. After which they designed circuits on breadboard using RGB LEDs.



Year 6

States of Matter, Viscosity and Material Density

Students of Year 6 are learning about different states of matter and what better to explore transient states such as semi-solids than slime? They created their own slime in lab and explored change in state along with factors like viscosity and fluid density.



Year 7

Smart Displays, Physics

Students of Year 7 are learning how to design a smart display that is see-through as well as reflective in nature thus understanding about reflection and refraction.

Year 8

Electrons, Charge & Renewable Sources of Energy

Students of Year 7 are learning about various sources of energy generation and hence, they started exploring solar panels. Now, to derive electric current from panels, they have to solder wires on them. So, they started by learning about soldering.



Year 9 & 10

RFID Devices

Year 9 & 10 successfully coded an RFID reader using Microcontrollers and they will be using the same to design an RFID enabled locking system.



Year 11 & 12

Portfolio Project- Call back birds to campus

Students of Year 11 & 12 are designing Bird feeders that can be hung on trees and can be refilled when needed. Students started by identifying patterns of bird flight, then defining the feeders with a sketch and a 3D Model.



World Studies, Robert Stevenson and Shakespeare

For the month of August, authors in focus were Robert Stevenson and Shakespeare.

Students in Primary School were introduced to Treasure Island by Robert Stevenson whereas students in Secondary school were introduced to Hamlet by William Shakespeare.

Students from Key Stage 1 & 2 designed an interesting Treasure Hunt Game filled with clues to solve and challenges to face in order to reach to the Treasure buried on an island, a chest filled with candies.

Students from Key Stage 3,4 & 5 worked on a Design Challenge where they redesigned the complete architecture of Globe Theatre, made it reinforced and modernised it with latest architectural approach.

KEY STAGE 1 & 2

Students from Primary School started the design of game using woodworking where they used MDF Board to create the base and painted it like an Ocean.



After making the base, students used the oldest technique – Paper Mache to create an island using old newspapers.

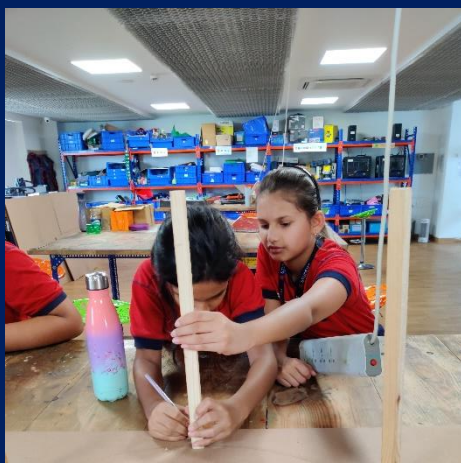
They 3D printed game pawns and dice and created the Path to treasure using Paper cut outs.

Once the game was complete, students also designed challenges and clues for the game and we also played a round with Year 1 students.



KEY STAGE 3 & 4

Students from Secondary School started redesigning the Globe Theatre after a discussion and then selected the layout. After which they selected the dimension for the redesigned model and started putting it together.



Some of the key features of this redesign are as follows:

1. White colored building to reflect sunlight and keep inner environment cooler.
2. A billboard on top to show what show is going on inside.
3. A more fortified structure with pillars and beams
4. Sound proofing angular walls to make sure each corner is able to hear dialogues from stage.

ENRICHMENT CLASS

Students completed the control panel for their Arcade Machine and during their motor-club sessions, they are learning about how to handle a bicycle and how to disassemble and assemble different parts of a bicycle.



Disclaimer: Safety is priority at MakersBox. We urge all our students to wear proper safety gear before working in the lab. Sometimes, Students take out their safety gear to get their pictures clicked.