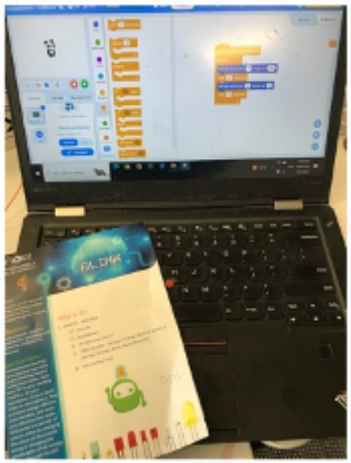
MINISTRY OF INSPIRATION

STEAMS School Newsletter



Building an animated underwater reef

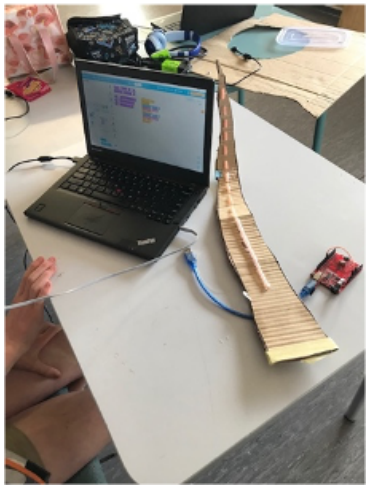
Yaelle's class has been working on creating a scene for Te Ramaroa: The Festival of lights. The class has researched and found out about different corals and tube worms that live at the bottom of the Ocean. They discussed how some organisms have bioluminescence which means they create their own light! They then designed and created a group project of an animated underwater reef. Some of the corals have light circuits built into them and the tube worms have parts that come out of the top and feed.

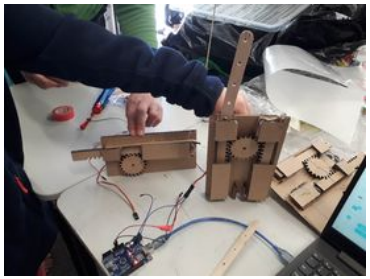
Denny has built and programmed a motor to create movement and light for the coral scene. To do this he has learned how to programe the laser printer to create the mechanisms that will move the feeding tubes. He has soldered the LED lights to create a circuit for the corals. Then he used MBLOCK to programme the movement. He connected this to an Arduiono to create the

illusion that the feeding tubes are emerging and retreating into the tube. An impressive project. When asked what he had enjoyed most about Denny said, “I really liked making the tubes for the mechanism to go in, we had to think about how wide it was and papiermached it and painted it. I also enjoyed learning how to solder and use the laser cutter.”

Creating an animated electronic light up Octopus

In Mike’s Senior class on Thursdays the group have been investigating the adaptations needed for creatures to survive in deep sea in order to create a group project for Te Ramaroa: The Festival of lights. They got particularly interested in Octopi. Amy created an amazing moving model to show them how they could create mechanisms and create programmes in order to make the tentacles move independently. This inspired them greatly, and they have been very engaged researching octopi, learning how to write the coding for the mechanisms to work and pretending to be eye doctors! Hugh came up with a great idea for the suckers on the tentacles; to disassemble different sized googly eyes and invert them. So a working group of eye doctors was formed, dissembling different sized googly eyes and gluing them on the tentacles. Hugh said of the project, “We just wanted to make it the most realistic octopus we could!” Last week the team worked on adding fabric to the model and adding eyes and syphons. Can't wait to see the finished moving model!





Moving mechanised Light Boxes

Erin’s classes have been creating amazing light boxes with mechanisms inside. These have been programmed to create moving shadows of underwater creatures. They are all very individual and the students have been fully involved in reseaching their choices and working out how to make their movements realistic. They are very impressive and you can see from the image how complicated the mechanisms have to be to create the movement. Lots of learning happening about the properties of Light and the formation of shadows!
