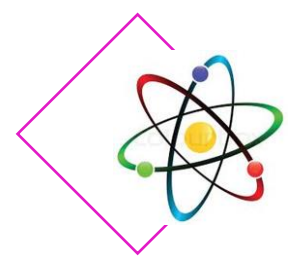


**YOUNG SCIENTIFIC  
EXPLORER 2019**

*ASTI REPORT*

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A mini “Science Fair” was organised on 23<sup>rd</sup> March 2019 at Setia Eco Templer Sales Gallery. We, Association of Science, Technology and Innovation (ASTI) was invited by Setia Eco Templer through Six Fingerz Events Company and we have contributed on this day by setting up a Science experiment booth for children. We showcased 10 experiments based on scientific concepts to the children and then walked them through the experiments. Our focus was not only to teach the scientific concepts to the children but also to give them an enjoyable experience. We wanted to show them that Science is fun and to instil in them a passion for science and innovation.

The experiments showcased were as follows.

### **1. Density**

**Aim:** To make the egg float

**Procedure:**

1. In both the glass fill half of it with water
2. In the second glass only add 3 table spoon of salt and mix it well. Name this glass as magic.
3. Lastly put eggs in slowly, one in each glass.
4. Take note of what happens.

### **2. Presence of Air**

**Procedure:**

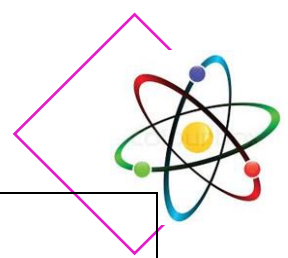
1. Fill the basin full with water.
2. Place the tissue paper in the bottom of the glass so that it cannot move about.
3. Turn the glass upside down and press down the glass until it touches the bottom of the basin.
4. Lift the glass straight up out of the water. Do not tilt the glass

### **3. Static Electricity**

**Aim:** Observe the static electricity

**Procedure:**

1. Tear a tissue into small pieces.
  2. Rub the ruler vigorously using tissue paper.
  3. Hold the ruler one inch above the small pieces of the tissue paper.
  4. Observe the changes.
-



#### 4. Surface Tension

**Aim:** To observe the force exist on the surface of the water

**Procedure:**

1. Fill the basin with water.
2. Create two small paper boats using the manila card, and label them (Boat A & Boat B).
3. Cover the base of both paper boats with cellophane tape.
4. Place boat A aside.
5. Apply a small amount of soap on the rear underside of boat B.
6. First, place boat A on the basin, and record the movement of the boat.
7. Repeat the same steps with boat B.
8. Record and compare the movement of the boats.

#### 5. Oxidation/Chemical Bonds

**Aim:** To investigate the disappearance of the colour.

**Procedure:**

1. Fill up half of the food container with water.
2. Put 2 drops of red food colouring into the water and mix it well.
3. Then add 1 drop of the stain remover into the red colour water with a dropper. Add on the stain remover with the dropper until you obtain a colourless solution.
4. Now add 1 drop of the red food colouring again into the solution.
5. Observe what happens to the solution.

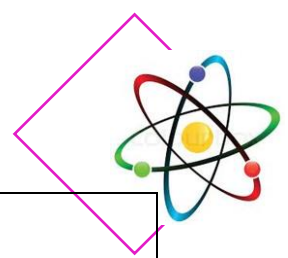
#### 6. Pressure in Fluids

**Aim:** can we increase the force of water?

**Procedure**

1. Using the nail, pierce a vertical line of holes on one bottle. Pierce a horizontal line of holes on the other bottle. **(Do this with the help of an adult)**
2. Cover both bottles' hole that you made with sticky tape.
3. Fill the bottles with water. Remove the tape first from one bottle, then the other.





### **7. Bernoulli's Principle**

**Aim:** To investigate Bernoulli's principle

**Procedure:**

1. Blow a balloon and insert a bundle of straw into the balloon.
2. Place a ping pong ball on top of the bundle of straw (place where air is coming out).
3. Release air from the balloon slowly and record observation.

### **8. Air Pressure: Anti-water gravity**

**Aim:** To observe air pressure.

**Procedure:**

1. Put the cardboard over the mouth of the glass, making sure that no air bubbles enter the glass as you hold onto the cardboard.
2. Turn the glass upside down (over a sink or outside until you get good)
3. Take away your hand holding the cardboard.

### **9. Air Pressure: Suck a water balloon into a bottle**

**Aim:** To observe air pressure.

**Procedure:**

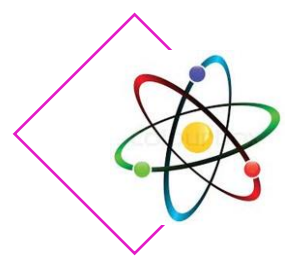
1. Fill the balloon with water. (Put the balloon onto a tap and fill it until it is slightly bigger than the mouth of the jar or bottle.
2. Light a piece of paper and drop it into the bottle.
3. Put the water-balloon on top.
4. The balloon should be pushed into the bottle.
5. To get the balloon out, put the straw into the bottle and blow in.

### **10. Refraction of Light: Make a Water Lens**

**Aim:** To study about the refraction of light.

**Procedure:**

1. Draw any pictures on a paper.
  2. Place the glass in front of a graphic.
  3. Adjust the distance between the glass and the graphic until the image can be seen clearly through the empty glass
  4. Slowly pour water in and see what happens.
  5. Repeat the experiment again using different distances between the glass and the graphics.
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We also had another station with interesting puzzle sets for the children to build. Each puzzle tested their creativity, critical thinking and perseverance. This station was here not only to attract the children but to further highlight that learning can be fun and done through unconventional means as well.

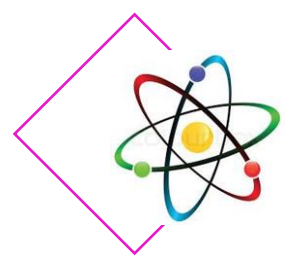
Each station was manned by dedicated ASTI staff (as listed below) who interacted and explained to the children about each experiment.

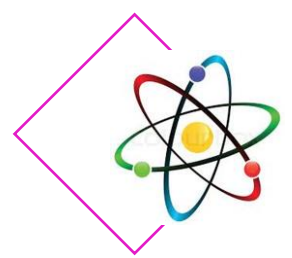
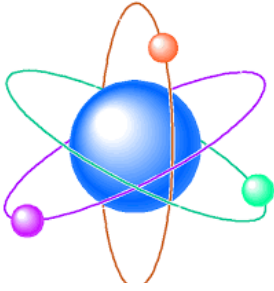
- Ms. Vanitha Vasu
- Ms. Yugeswari Krishnan
- Ms. Vija Letchumy Rajoo
- Ms. Shubashini Mathyalingam
- Ms. Darishini Nadarajah
- Mr. Sarvin Vigiye

We conducted our stations from 11am to 5pm on the day and interacted with over 50 children during that time. The feedback we received from the children was overwhelmingly positive with many of them expressing interest in the scientific concepts. They were in amazement of the results and ask a plethora of questions. We believed we achieved our goal set out for the day which was to peak their interest in science.

## PICTURES







ASSOCIATION OF SCIENCE, TECHNOLOGY & INNOVATION

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