

What will you learn throughout the day?.....

1. Chemical reactions
2. Reduction and Oxidation - Redox reactions
3. Why colour of water changes in the reaction?
4. Repulsion of magnets
5. Levitation due to repulsion
6. Frictionless propeller
7. Mixing of colours and white light formation
8. Working of LED
9. Simple torch circuit and use of switch
10. Reflection of light
11. Dispersion of light due to smoke
12. What is LASER light?
13. Applications of LASER beam
14. Laws of reflection
15. Measurement of angle of incidence & reflection
16. Our planet Earth
17. Earth is tilted vertically by 23 degrees
18. Why days & nights occur?
19. Seasons on the Earth
20. Sun's path - the Zodiac
21. Concept and truth about "Sun Signs"
22. Centrifugal force in the Earth
23. Bulging of the Earth at equator

Things students should bring with them

1. Cutter
2. Scissor
3. Fevicol tube
4. Cello tape
5. Exam pad
6. 9 volt battery
7. Empty 1 litre mineral water bottle
8. Tiffin box
9. Drinking water bottle
10. Compass box



Academic year Based Courses

#### JUNIOR LEVEL

Every Sunday | Session : 1.5 Hours  
Duration : 18 weeks | For standard 3rd & 4th  
Take away kits.  
More than 35 Science experiments & projects

#### LEVEL 1

Every Sunday | Session : 2 Hours  
Duration : 22 weeks | For standard 5th to 9th  
Take away kits  
More than 45 Science experiments & projects

#### LEVEL 2

Every Sunday | Session : 2 Hours  
Duration : 22 weeks | On completion of Level 1 or Std 8/9  
Take away kits  
More than 40 Science experiments & projects

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[www.sundayscienceschool.com](http://www.sundayscienceschool.com)

We also offer different types of 1 hour to day-long  
Hands-On Science workshops, year long  
syllabus mapped activities for CBSC schools.

## Sunday Science School



#### Head office

##### Sunday Science School

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# 1 Day Hands-On Science Workshop

Magnetic Propeller | Redox Reaction |  
Newton's Disk | LASER Reflection |  
Motorized Bulging of Earth | Zodiac Band Model  
**TAKE AWAY KITS...**



## Activities & Projects in the workshop



### Blue Bottle Reaction

Interesting magical reaction. Colour of solution becomes blue when you shake the bottle. Solution turns colourless if kept for a while. It is a Redox reaction.

### Chalk Chromatography

Separate colour constituents of green food colour and see how they travel up a white chalk.



### Paper Chromatography

Get colourful pattern of sketch pen ink using filter paper. Understand chromatography and its application.

### Magnetic Propeller

Make an interesting project. A magnetic-repulsion based propeller. Pencil stands upright and spins when kept under a ceiling fan.



### Newton's Disk

Make a seven coloured Newton's disk spin on propeller and see how all seven colours, when mixed, produce white colour.

After cutting, fold it a bit to make propeller

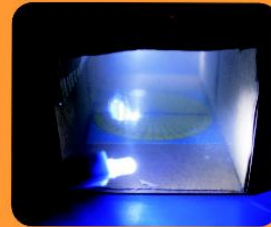


### Make a Torch

We often need a small hand-held torch. Make a button-cell based torch for science projects. The torch uses white LED and gives bright light.

### Reflection of white Light

Prepare a smoke box with a mirror placed on one side. See how white light scatters due to smoke in the box.



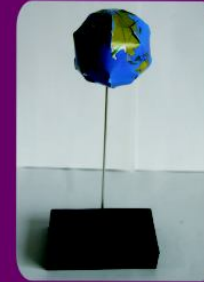
### Reflection of LASER Light

LASER source of light is different than ordinary source. Know about LASER and its applications. Throw LASER light in smoke box and see its beam. Also see how it reflects and forms images as well.



### Measurement of Angle

Using simple paper protractor, measure angle of incidence and angle of reflection using reflection box with mirror and LASER beam.

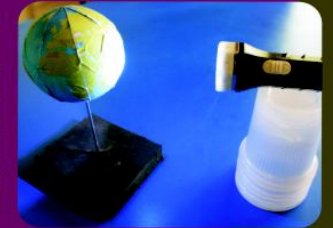


### Make an Earth

Prepare model of the Earth using a ball and paper print of the Earth. Make it stand and know how the Earth is tilted by about 23 degrees.

### Day & Light

Flash light of the torch made by you on the Earth's surface from one side and you will know how days and nights occur on planet Earth.



### Zodiacal Path of the Sun

As the Earth orbits around the Sun in 365 days, the Sun appears to move on backdrop of the stars. The 12 constellations on this path are called as the Zodiacal constellations. Make a model and explain this path.



### Bulging of the Earth

Due to continuous rotational motion of the Earth, it is bulged at equator. Diameter of the Earth is more at equator than that at the poles. Make a motorized model to show this phenomena.



.....All take away kits