Admissions to Std 9 & 10 Students

Dates
17-18-19-20
May 2016

“HANDS-ON”
SCIENCE
CRASH
PROGRAM
FOR 10th STD

Learn Class 10 Science By Doing Experiments As Per Syllabus

All Take away kits...!

Preparatory Program to Develop Conceptual Understanding

Sunday Science School

www.sundayscienceschool.com
Activities on Day 1

Chemistry - Session 1
- Study of Periodic Table
- Formation of calcium hydroxide by combination of calcium oxide and water
- Conversion of calcium hydroxide to calcium carbonate using carbon dioxide gas
- Electrolysis of water
- Displacement of copper metal from Copper sulphate solution by zinc metal
- Formation of yellow precipitate of lead iodide using lead nitrate and potassium iodide
- Redox Reaction

Electricity
- Electricity Board making activity
- Making of simple circuit and use of switch
- Understanding short circuit
- Identification of conductors and insulators by using simple circuit.
- Verification of Ohm's law by changing resistance in the circuit - use of rheosiat
- Types of circuits - Bulbs in series and bulbs in parallel
- Resistivity of metals
- Use of Carbon Film Resistors along with bulbs in series and parallel circuits
- Making of electrical heater to show heating effect of electrical current

Magnetism & Electromagnetism
- Tracing magnetic lines of forces using iron fillings
- Making of electromagnet to demonstrate magnetic effect of electric current
- Preparing solenoid
- Magnetic lines of in a circular wire loop
- Attraction & repulsion in electromagnet
- Make a working model of simple DC motor
- Making a hand-held Electricity Generator
Chemistry - Session II

- Making of molecular models of Carbon compounds, like, Methane, Ethane, Propane, Butane, Ethene, Propene, Ethyne, Propyne, Cyclohexane, Benzene
- Polymer formation Reaction
- Examining samples of acids and bases using Synthetic indicators - methyl orange, Litmus paper, pH Paper
- Reactivity of metals with acids
- Reactivity of acids with carbonates and bicarbonates
- Reactivity of acids with metal oxide
- Reactivity of acid with base (Neutralization)
- Verifying salts as acidic salt, basic salt, and neutral salt (NH₄Cl, Na₂CO₃, NaCl)

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Optics (Reflection & Refraction)

- Prepare optical bench and light source
- Image formation in plane mirror
- Image formation in Concave and convex mirror using optical bench.
- Convergence, Divergence of light and focal length of Concave and convex lens (Ray box activity)
- Images formed by convex lens with object at different distance (optical bench activity)
- Refraction through glass slab activity
- Dispersion of light - rainbow formation

Biology

- Human Anatomy - study of Brain, Nervous system, Heart, Circulatory, Respiratory System and more...using colourful card and charts
- Working of Eye - making a model using lens, bowls and screen
- Working of lungs - making a study model
- Flash Card based learning for important Biology topics from syllabus