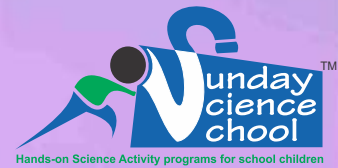


Innovate

## Standard 8

By this age students would have developed skilled hand. They will learn to make slides and observe under compound microscope. After understanding elements, compounds, polymers; they will make plastic polymer themselves. An electric board game will be developed for the topics, which cannot be covered by doing experiments. To understanding working of eye, they will make a Eye model. Students will perform experiments on static electricity, sound, light and also make a Daniel cell. On the topics on Earth and Space, students will make IRS satellite, Barometer and U tube manometer to understand atmospheric pressure, by making drifting continent and seismic detector, they will learn about Earthquake.



## Hands-On Science Activities

### 801. Match-it-right game for animals and plants



- 1 Making a **Match it right** board

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- 2 Prepare matching exercise from syllabus

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- 3 Play using boards of all students one by one

Discussion on animals, birds, plants, food, diseases etc. Design this game and assignment to students to create more exercises.

### 802. Plants and Animals



- 1 Growing yeast plants

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- 2 Potato starch grains

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- 3 Onion cells

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- 4 Cheek lining cells

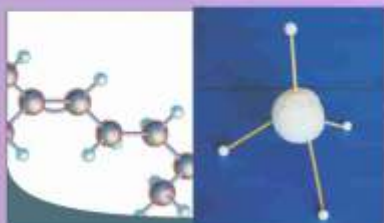
Students will learn about- taking sections of samples, staining biological objects, making permanent slide. Observing various tiny objects and understanding structure.



## Standard 8



### 803. Polymer formation



- 1 Making Carbon compounds
- 2 Chains of hydrocarbons
- 3 Reaction to make Polymer
- 4 Observation of polymer

Organic chemistry, organic chains and bonds, polymers, plastics, uses of polymers, what is reaction?, how new compounds are formed, properties of compounds

### 804. Periodic Table

- 1 Classification of elements
- 2 Learn Periodic table

Understand periodic table, metals, non-metals and metalloids, physical and chemical properties of elements, reactivity series of metals, alloys of metals,

### 805. Working of Eye



- 1 Study of convex lens
- 2 Focal length of lens
- 3 Image on retina
- 4 Making of a eye model and understanding its function

Understanding working of eye, organ and organ systems. convex lens, its shape, focal length, parallel rays and their convergence, image formation, magnification, retina, lens of our eye and how does brain understand image of objects?

### 806. Static electricity



- 1 Bend the water stream!
- 2 Make a Electroscope.
- 3 Charging & discharging of electroscope

Understanding of electron, proton. How charge gets transferred? Application of static charge in day-to-day life.





## Standard 8



### 807. Barometer



- 1 Test your strength- Magdeburg
- 2 Make a model to understand working Barometer

Air around us exert pressure on us. Understand it by performing experiments and working of barometer.

### 808. Pressure in a liquid



- 1 Pressure and Human body
- 2 Make U tube Manometer

Pressure in a liquid at a given depth is independent of direction but varies with depth. Liquid exerts pressure in all direction. Student will understand and observe it.

### 809. Sound



- 1 Know about 2 types of waves
- 2 Make a model to understand Transverse waves
- 3 Experiment to understand Longitudinal waves

Waves and waveforms, electromagnetic wave & sound waves, transverse and longitudinal waves, speed of sound, speed of light, oscillations of molecules etc.

### 810. Daniel cell



- 1 Electrolyte, non-electrolyte
- 2 Chemical effect of electric current
- 3 Make a Daniel cell

Understand conductor, insulators, electrolyte, non-electrolyte mediums. Electroplating and its applications. Working of a electrolyte cell.



## Standard 8



### 811. Light



- 1 Dispersion of light \_\_\_\_\_
- 2 Refraction of light \_\_\_\_\_
- 3 Magnetic propeller \_\_\_\_\_
- 4 Making of a Newton's disk \_\_\_\_\_

Why does white light disperse into seven colours? If we add all 7 colours can we get white light back again?

### 812. Drifting continent



- 1 Cutting and pasting continent \_\_\_\_\_
- 2 Drifting continent model \_\_\_\_\_

Know the interior structure of the Earth- Crust, mantle and core. Learn about tectonic plates, and its movement.

### 813. Satellite



- 1 Parts of satellite \_\_\_\_\_
- 2 Make a Indian Remote sensing satellite \_\_\_\_\_

Understand working of satellites revolving around Earth, their orbits, functions and uses of satellites.

### 814. Seismic Detector



- 1 Building of a Tower \_\_\_\_\_
- 2 Making of a Seismic detector \_\_\_\_\_

How and where do Earthquake occurs? Know about epicentre, hypocentre, aftershocks, and Richter scale.