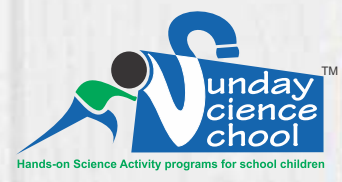


Standard 5

For 5th std, we have focused on skeletal system and functioning of heart of human body. Students also make a working model of windmill, understand chemical bonds, working of levers, densities of liquid and how eclipses occur. Students will also do experiments of seed germination and propagation and reflection of light using LASER pointer. In seed germination activity, students are expected to record their observations at home. A special attraction of this year is making of Mangal yaan along with PSLV launcher model. This will make them aware of Indian Space Program.



Hands-On Science Activities

501. Seed germination



- 1 Recognizing assorted seeds _____
- 2 Monocot / Dicot seeds _____
- 3 Observing stages of germination _____
- 4 Seedling formation _____

Understanding of plant reproduction, parts of seed, need of necessary factors for seed to germinate, types of seeds, their differences, relating floral parts with the parts of seed etc.

502. Match-it-right game for animals and plants



- 1 Making a **Match it right** board _____
- 2 Prepare matching exercise from syllabus _____
- 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.



Standard 5



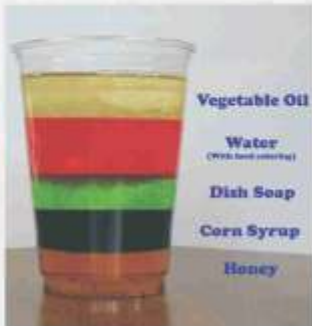
503. First Aid kit



- 1 Understand contents of first-aid kit and use of each of them
- 2 Applying band-aid on small wounds
- 3 Using crape bandage
- 4 Tying a sling to arm.
- 5 Cleaning wounds / use of ointment

Why do we need to know about First aid? Do's & Do nots in first aid. Care during burns, wounds, fractures etc. Animal / insect bites and care during such events.

504. Solutions and their concentrations



- 1 Making solution with different concentrations
- 2 Forming 3 layers of 3 colours using salt solution of different densities.

How much solute can be dissolved in solution? what is density?, how heavier solution can be kept at lowest level?, mixing of colours in solutions of different concentrations

505. Skeletal system



- 1 Outline cutting of bones
- 2 Making a skeletal system
- 3 Working of joints

Understanding functions of bones, joints. Interior & exterior skeletal system, names of different bones, types of joints, vertebral column, movements and body postures.

506. Wind mill



- 1 Preparing wooden board for windmill preparation
- 2 Preparing windmill tower

Understanding how discoveries have helped mankind, discovery of motor, windmill, how wind mill works?, wind is renewable form of energy, structure of towers of windmill.



Standard 5



507. Windmill making



- 1 Working of dynamo
- 2 Study of LED
- 3 Complete wiring of windmill
- 4 Working of model & decoration

What are types of wind mill? Use of pulleys to increase number of rotations, pulley ratio, diodes, polarity of diodes, electricity generation

508. Our Heart



- 1 Coloring 3D model of heart
- 2 Identifying chambers of heart and other parts

Heart is made up of 4 chambers, it is a pump that works continuously, heart has involuntary muscles.

509. Stethoscope



- 1 Measuring heart beats
- 2 Making a stethoscope
- 3 Working of stethoscope

Why does heart beat? how to measure heart beats?, discovery of stethoscope?, how doctors use it? parts of stethoscope? why do we get sound of heart through stethoscope?

510. Eclipse model



- 1 Making a Earth moon model
- 2 Creating shadows of objects
- 3 Making Lunar eclipse
- 4 Making Solar eclipse

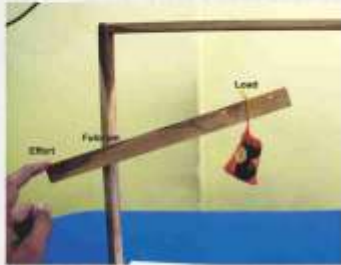
Understanding shadows of celestial bodies, importance of New Moon and Full moon nights for eclipses, also to know why there are no eclipses every month.



Standard 5



511. Class I lever



- 1 Making class I type lever
- 2 Load arm, effort arm
- 3 Changing fulcrum to get mechanical advantage

What is lever? common uses? How class I lever works? Load and effort, arm length, fulcrum, relation between force and distance of applying it.

512. Class II and Class III lever



- 1 Making class II type lever
- 2 Making class III type lever
- 3 Using spring balance measuring load and effort for II & III types

Position of fulcrum in class II and III lever, mechanical advantage, use of class III lever, measurement of load, effort, their length and proving their relationship

513. Periscope



- 1 Reflection in plane mirror
- 2 Image formation using mirror
- 3 Angle of object and image
- 4 Making of a Periscope

Light travels in straight line, light reflects from surfaces, how does mirror work?, reflection in plane mirror, knowing that angle of incidence and reflection are same, use of periscope, its applications in old times and modern times.

514. Mangalyaan



- 1 Making PSLV model
- 2 Making Mangalyaan
- 3 Know how Mars mission was carried out

What are satellite launch vehicles? PSLV and GSLV Launch of Mangalyaan using PSLV, fuel used in PSLV, its stages, Mangalyaan, its payloads, how was this mission carried out? etc.