

**PHYSICS IX-X GRADES**  
**LIST OF PRACTICAL**  
**STANDARD EXPERIMENTS**

1.	To measure the area of cross section by measuring diameter of a solid cylinder with vernier callipers.
2.	To measure the volume of a solid cylinder by measuring length and diameter of a solid cylinder with vernier callipers.
3.	To measure the thickness of a metal strip or a wire by using a screw gauge.
4.	To find the acceleration of a ball rolling down an angle iron by drawing a graph between $2S$ and $T^2$ .
5.	To find the value of "g" by free fall method.
6.	Investigate the relationship between force of limiting friction and normal reaction to find the co-efficient of sliding friction between a wooden block and horizontal surface.
7.	Measure the force of limiting friction by rolling a roller on a horizontal plane.
8.	To determine the value of "g" by the Atwood's machine.
9.	To determine the resultant of two forces graphically using a Horizontal force table.
10.	To verify the principle of moments by using a metre rod balanced on a wedge.
11.	To find the tension in the strings by balancing a metre rod on the stands.
12.	To find the weight of an unknown object by using vector addition of forces.
13.	To find the weight of an unknown object by using principle of moments.
14.	To study the effect of the length of simple pendulum on time and hence find "g" by calculation.
15.	To prove that time period of a simple pendulum is independent of (i) mass of the pendulum (ii) amplitude of the vibration.
16.	To study the relationship between load and extension (Helical spring) by drawing a graph.
17.	To find the density of a body heavier than water by Archimedes principle. National Curriculum for Physics IX-X 47
18.	To find the density of a liquid using 5 ml syringe (instead of density bottle).
19.	To find the specific heat by the method of mixture using polystyrene cups (used as container of negligible heat capacity).
20.	To draw a graph between temperature and time when ice is converted into water and then to steam by slow heating.
21.	To measure the specific heat of fusion of ice.
22.	To verify the laws of refraction by using a glass slab.
23.	To find the refractive index of water by using concave mirror.
24.	To determine the critical angle of glass using a semi circular slab and a light ray box/or by prism.
25.	To trace the path of a ray of light through glass prism and measure the angle of deviation.
26.	To find the focal length of a convex lens by parallax method.
27.	To set up a microscope and telescope.

28.	Verify Ohm's law (using wire as conductor).
29.	To study resistors in series circuit.
30.	To study resistors in parallel circuit.
31.	To find the resistance of galvanometer by half deflection method.
32.	To trace the magnetic field using a bar magnet.
33.	To trace the magnetic field due to a current carrying circular coil.
34.	To verify the truth table of OR, AND, NOT, NOR and NAND gates.
35.	To make a burglar alarm/fire alarm using an appropriate gate.

**Note:**

1. At least 30 standard practical alongwith exercises are required to be performed during the two years of course of studies of grades IX-X.
2. Use of centimetre graph paper be made compulsory.