# Activities

Welcome to the activities page! Here you’ll find interactive and hands-on exercises to deepen your understanding of modern classical mechanics.

## Sample Activity: Pendulum Lab

* **Objective:** Explore the motion of a simple pendulum and measure its period.
* **Materials:** String, weight, stopwatch, ruler.
* **Instructions:**
  1. Set up a pendulum of known length.
  2. Displace it by a small angle and release.
  3. Measure the time for 10 oscillations.
  4. Calculate the period and compare with theory.

**Tip:** Try different lengths and plot period vs. length!

## Sample Activity: Energy Skate Park (PhET)

* **Objective:** Investigate conservation of energy using a virtual skate park.
* **Link:** [PhET Energy Skate Park](https://phet.colorado.edu/en/simulation/energy-skate-park)
* **Instructions:**
  1. Open the simulation and build a track.
  2. Observe kinetic and potential energy as the skater moves.
  3. Experiment with friction and track shapes.

Add your own activities in activities.md using markdown!