

List of Possible Topics for Investigations

- factors effecting static friction between surfaces
- factors effecting the motion of a pendulum
- factors effecting the oscillation of a spring
- factors effecting circular motion
- factors effecting the speed of a parachute
- range of projectiles
- efficiency of a catapult
- optimum pressure for a basketball, football or soccer ball
- efficiency of a block and tackle
- load and speed variations of a parachute
- the friction between shoe soles and various floor materials
- potential energy stored in a track shoe sole
- Simulation of a bungy jump
- The sporting impacts of a ball with a bat.
- Forces and energies of a bouncing ball
- Sweet spot of a tennis racket.
- Investigate the drag on objects towed in water (consider changes with length, depth of water and other factors)
- Bouncing ball
- How does the efficiency of a DC motor depend on the load and the voltage?

There is a list of topics at the link below. It is a long list and some may not be suitable for us or may need modification. Remember we do not have unlimited time or resources.

<https://www.vicphysics.org/documents/teachers/Experimental%20investigations%20for%20Units%203%20and%204.doc>