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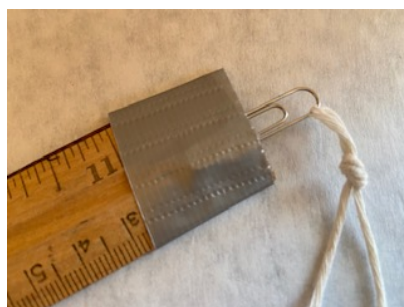
Mission: Raven Hill provides a place that enhances hands-on and lifelong learning for all ages by connecting science, history & the arts.

Pendulums

Welcome, all you physical scientists, better known as physicists! Exploring PENDULUMS can lead to lots of questions and investigations. You will need some tape, scissors, ruler, paperclip, some small objects for weights, plus a tall box or can or even a chair will work. Tape the ruler onto the can, box or chair, so it hangs out and away from the base. Your pendulum needs to swing free. Tape the paperclip onto the end of the ruler, again allowing for free swinging of the pendulum. Cut a length of string. Tie a loop in one end and tie the weight (called the BOB) on the other end of the string. Hang the loop of the string from the paperclip. Raise the weight or bob even with the ruler and release. Remember not to push the bob, when you let it go. Gently release it for each trial. Count each time the pendulum swings toward you. The swing away and back is called a “period”. Around 1583, the Italian scientist Galileo first noted the constancy of a pendulum’s period by comparing the movement of a swinging lamp in a Pisa cathedral with his pulse rate. Keep a written record of how many periods your pendulum swings before it comes to a total stop. What do you notice about each period? Try a different length of string with the same weight or bob. Try a different bob. Record the number of periods for each trial. If you have a swing in your backyard, you can be a part of a pendulum! You and the swing seat form the bob of the pendulum. If you go to the park to swing, be sure to clean the swing and social distance. Enjoy and remember to put all your supplies away, when you are done investigating.



1 Gather supplies



2 Assemble the pivot point



3 Attach pendulum



4 Release & count