

# Coupled Pendulums

*Linked pendulums can get one another going.*

## Try this:

- Start one of the pendulums swinging. Notice that the other pendulum starts swinging, too.
- If you watch carefully, you'll see the two pendulums take turns swinging energetically and then slowing down.

## What's going on?

In this exhibit, energy that you add to one pendulum moves back and forth between both pendulums.

The rapidly swinging pendulum pushes on the motionless pendulum and starts it swinging. As the motion of the once-stationary pendulum grows, it takes energy from the other pendulum, eventually stopping it. Then the whole process repeats.

## Swing Time

These pendulums swing 60 times a minute from the lower pivots and 50 times a minute from the upper pivots, transferring energy 10 times per minute ( $60 - 50 = 10$ ). If you use the clock, you can time it for yourself.