

# SECTION 1

## Enrichment

# Transferring Kinetic and Potential Energy

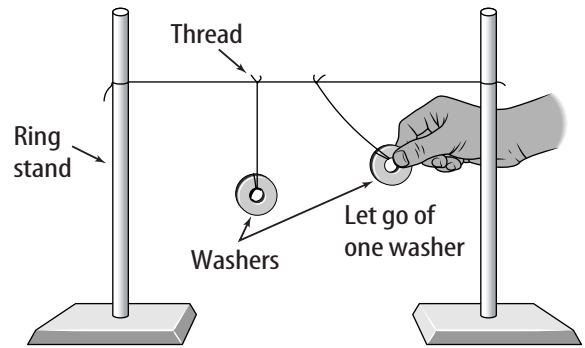
In this activity you will build twin pendulums. You will use the twin pendulums to observe how kinetic and potential energy can be transferred in a system.

### Materials

washers or bolts exactly the same size (2)  
ring stands (2)  
strong thread

### Procedure

1. Try to duplicate the apparatus shown in the figure. To build twin pendulums, place the two ring stands about 30 cm apart. Tie a piece of thread about one-fourth of the way down from the top of one ring stand. Attach the other end of the thread an equal distance from the top of the other ring stand. There should not be any slack in the thread.
2. Cut two 15-cm lengths of thread. Attach a washer to each thread. Tie the other ends of these threads to the horizontal thread, about 5 cm apart. The washers must hang at exactly the same height.
3. Pull one of the washers upward and backward so it is as high as the horizontal string. Let go of the washer and observe what happens.



### Conclude and Apply

1. Describe what happened to the two pendulums after you let go of the washer?

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2. Explain why the second pendulum was able to move without your touching it.

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3. Why did the pendulums eventually stop swinging?

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