

Circular Motion Activities

TEACHER NOTES

Station 1 Ferris Wheel

- Set is up on a computer. It will run best if it is copied to the hard drive.
- stopwatch

Station 2 Anti-Gravity Machine

- Set is up on a computer. It will run best if it is copied to the hard drive.
- stopwatch

Station 3 Roller Coaster

- Set is up on a computer. It will run best if it is copied to the hard drive.
- stopwatch
- It is best to advise students that the time they record at the loop's top is not the same as the period. They will need to calculate the tangential velocity before calculating the period of motion.
- The loop's irregular shape requires you to use a radius of 7 meters for all calculations.
- The animation that displays how to record the train's velocity uses 6 cars. The actual video uses 7 train cars. The easiest way to count the number of train cars is to pause the video.

Station 4 Scrambler

- Set is up on a computer. It will run best if it is copied to the hard drive.
- stopwatch
- This scrambler's motion repeats its self. Given that the period of motion around the center, major, axis is "T," the period of motion of the smaller, minor, axis is " $\frac{1}{2} T$."

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