# Activity #5 - Paper Roller Coasters

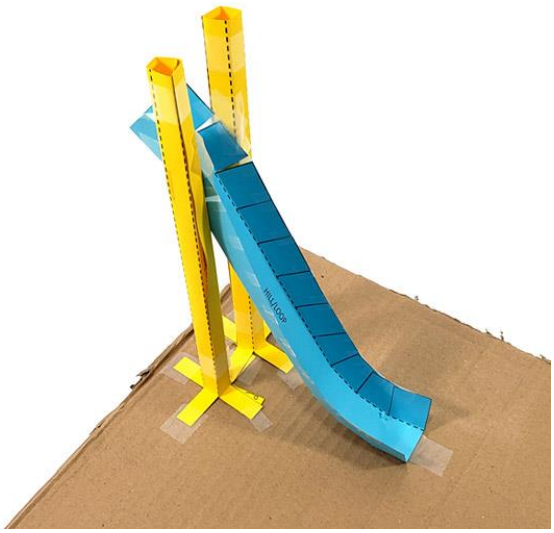
Preview video

## Materials Needed

- Paper roller coaster templates. Use the ones provided or print your own here .
- Piece of corrugated cardboard to use as a base, at least 12"x12"
- Scissors
- Clear tape
- Marble or round bead
- (included) Student worksheet

## Directions

- Watch the preview video.
- Build the two support posts and one ramp by cutting, folding, and taping them together.
- Practice rolling a marble down the hill. If you need more supports, you can build them.
- Add a hill or a loop to your roller coaster.
- Test the roller coaster. If you need to make changes, please do it now.
- Tape the roller coaster down.



## Procedure

- Test your roller coaster. The marble should make it to the end. Make changes if it does not.
- Record any information you see. (When does the marble slow down? When does the marble speed up?)
- If time allows, add more sections to your roller coaster track.
- What problems did you encounter when testing their initial roller coaster designs?

STEAM Connections

Civil engineers build bridges. They have to be able to support the weight of people, cars, and trucks. Most bridges can't move while supporting the weight of vehicles. If you are interested in building roller coasters, you may enjoy a career as a civil engineer.

Source: https://www.sciencebuddies.org/teacher-resources/lesson-plans/roller-coaster-kinetic-potential-energy#summary