



## Activity: Marble Run

Create a marble run from recycled materials!

### MATERIALS

- ▶ Cardboard for backboard
- ▶ Single piece of sturdy cardboard about the size of a board game lid or the side of a medium size box; about 12" x 18"
- ▶ Boxboard (cereal box material) for ramp and other elements
- ▶ Cut into about 1" wide strips; lengths can be cut to size as you build
- ▶ Tape (masking tape, duct tape, painters tape, or scotch tape will work)
- ▶ Scissors
- ▶ Marble or other small object that rolls
- ▶ Paperclips (optional, but highly recommended)
- ▶ Toothpicks (optional)
- ▶ Paper (optional)
- ▶ Straws (optional)

### CHALLENGES

1. Keep your marble rolling down your backboard as long as you can. Use a timer!
2. Incorporate at least 10 elements into your rollway.
3. Incorporate at least 3 different types of elements into your rollways (ramps, tunnels, trap doors, seesaw, etc.)

### ELEMENTS OF A ROLLWAY

1. Ramps
2. Tunnels
3. Trap Door
4. Jump
5. Hoop
6. Seesaw
7. Pinwheel
8. So many possibilities!

### WAYS TO ATTACH RAMPS TO A BACKBOARD

1. Tape
2. Anchor toothpicks into backboard as brace for ramps
3. Make an L bracket out of a paper clip or piece of boxboard
  - ▶ Bend a paperclip or strip of boxboard into an "L" shape
  - ▶ Tape your "L" to the backboard; try both orientations to see what works for you
  - ▶ Rest ramp to "L"
  - ▶ Tape ramp to "L"