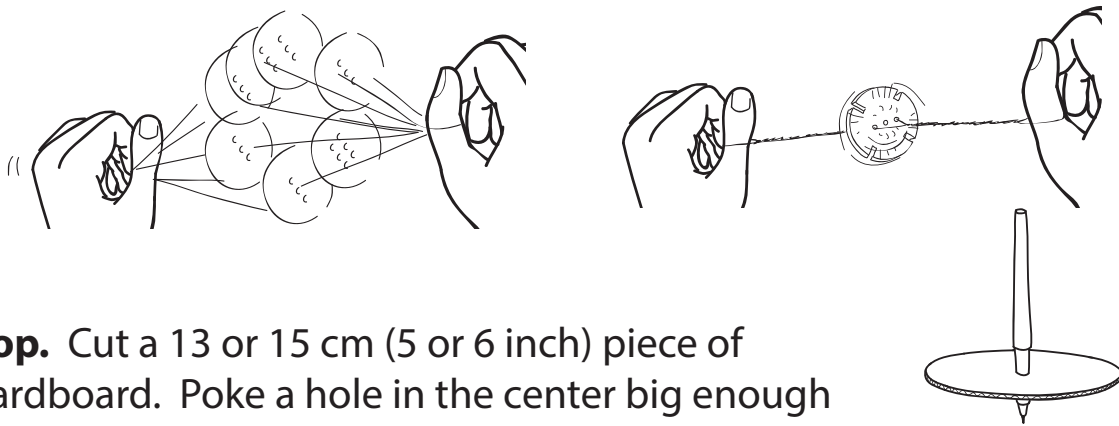


## HOME/SCHOOL CONNECTION

### Investigation 2: Patterns of Motion

**Zoomers.** Traditional zoomers are made from a button and a piece of string or strong thread. The string is strung through two button holes and tied to make a loop. The button will spin when you twirl it around to put a twist in the string and pull it tight to unwind.



**Top.** Cut a 13 or 15 cm (5 or 6 inch) piece of cardboard. Poke a hole in the center big enough for a pencil or felt-tip pen.

### Try this!

- Add more cardboard disks to the top.
- Compare zoomers made with a big button and with a little one.
- Add a spinning design to a top or zoomer. (The best way to see the spinning design on a zoomer is to change the position of the zoomer. Bring one hand in front of your face. Move the other hand away from you. Make the zoomer go fast or slow. Watch the design change.)
- Make tops from different materials.
- Be curious!—try anything you can think of!

What did you make? What did you try? What happened?