

Speed Investigation

Data Table

		Independent variable:		
		<i>Slow roll</i>	<i>Medium roll</i>	<i>Fast roll</i>
Dependent variable:	<i>Trial 1</i>			
	<i>Trial 2</i>			
	<i>Trial 3</i>			

Procedures

1. Place two large textbooks (or stacks of smaller books) on either side of the track. Carefully split a graham cracker in half along the perforated line. Prop up one unbroken half of the graham cracker on the track against the books as shown. Make sure that the line in the middle of the cracker is horizontal. Set the empty cart at the opposite end of the track, aligned with the end of the track.
2. Very gently, push the cart toward the graham cracker. The cart should move as slowly as possible while still making contact with the cracker. Record your results in the data table. If the graham cracker was damaged at all, clean up any crumbs and replace the graham cracker before the next trial. Do this “slow roll” three times, and record the data.
3. Before replacing the graham cracker, try to get the cart moving a little faster. Do your best to get several practice “medium speed” rolls that look about the same in a row before replacing the graham cracker. Record the data for three “medium” speed rolls, replacing the cracker and cleaning up crumbs as necessary between trials.
4. Repeat step 3 for a “fast roll.” You should get the cart moving as quickly as you can without letting it derail.

