

Dynamics Activities and Demos

At the stations around the room, you will try each demo and record your predictions of what you think will happen and your observations of what actually happens . After gathering observations, you will develop a unifying explanation for the behavior of the objects based on any similarities in the scenarios.

Activity Station	Prediction	Observation
Toilet Paper <ol style="list-style-type: none">1. Pull the toilet paper slowly in the direction that it comes off the roll.2. Roll up any excess.3. Now sharply pull the toilet paper in the same direction.		
Nuts about Hoops & Bottles <ol style="list-style-type: none">1. Balance a wooden ring on the bottle mouth.2. Place 4-6 metal nuts on top of the balanced ring (over the mouth of the bottle).3. Pull the ring sideways quickly & see if you can get them to fall in the bottle.		
Seatbelt Barbie <ol style="list-style-type: none">1. Put Physics Barbie in her convertible without a seatbelt and send her down the hill.2. Put Physics Barbie's legs under the red seat belt and see what happens.		
Hitting the Stake <ol style="list-style-type: none">1. With the block at the bottom, hold the stake in the middle.2. While choking up on the hammer, hit the end of the stake several times.		

Activity Station	Prediction	Observation
Spin the Human 1. Put the “antenna” on your head 2. Once it is balanced and still, turn your body to one side or the other.		
Chopping Blocks 1. Stack all of the blocks in a pile. 2. With the half-meter stick resting on the table, quickly swipe sideways at the bottom block. 3. Repeat.		

Develop a unifying explanation for the observations you made.

Some guiding questions:

- What is common between the objects in the demos?

- What is common between the actions in the demos?

Your unifying explanation that explains your observations:

Based on the explanation you developed, predict what will happen in each of the demos.

Demo	Prediction	Observation
Clearing the Table		
Egg Drop Soup		