Materials

* Table with flat surface
* Table cloth
* Dishes, bowls, cups with flat surface (the heavier the better)

Procedure- To perform this experiment, lay some table cloth on a table and smooth out the cloth so that it won’t get caught. Next place your breakable object on top of the table cloth, make sure to allow some of the cloth to hang off the edge of the table. Next grab the excess cloth and give it a quick tug downwards away from the table.

Observation- If done correctly the cloth will slide out from under the dishes, cups, and bowls with little movement of mom’s fine china (Don’t use mom’s fine china). With enough practice there will be no movement at all.

Explanation- This trick works using friction and inertia. Remember newton’s first law? The object will want to stay still so by pulling on the table cloth, friction force is the external force and will drag the object. This is why a heavier object makes this experiment easier, as it is less affected by friction. Pulling down quickly is effective because it decreases the time of friction acting on the dinnerware.