

Motion and Stability 3rd Pre-visit Activity

3-PS2-1- Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.

3-PS2-2- Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.

Essential question: How do equal and unequal forces on an object affect the object?

Supplies needed:

- 1 Egg (may vary if more trials)
- Toilet paper roll
- Glass cup filled with water
- Pie tin or any pan with a lip
- Paper
- Writing utensil

Teacher Preparation:

Begin with gathering all material. To set up the experiment, place the glass filled with water on the table. Then, put the pan on top of the glass of water. Next, place the toilet paper roll directly on top of the pan, aligned with the glass of water. Last, place the egg on top of the toilet paper roll.



Procedure:

Have students work in pairs/groups to predict how to get the egg in the glass of water. You can have students draw a plan how this will happen or you can have them discuss verbally. Have students share their plan with the class. CAUTION: This may be messy if egg breaks, but FUN!

Optional- Test multiple students plans.

This is a link to how this experiment works- Teacher use only:

<https://www.youtube.com/watch?v=STQRUzalH2M>