

## Acrobatics & Balance Experiment Tips

Read below for extra tips to help you complete your science experiments.



### Pendulum

- If you choose to do this experiment outside, make sure it's not windy. Wind will affect how the pendulum swings.
- Get help from a friend! When pouring the sand into the funnel, it is easier to have another set of hands to pour or block the funnel's hole.
- Experiment with different heights: the height of the lanyard, the height of the surface the pendulum is attached to and the height from where you drop the pendulum. See how the different heights affect how the pendulum swings and the number of time it completes full swings.
- The more space you have beneath your pendulum, the better. If you do not have a tray large enough to catch the sand, use newspaper or large scraps of paper to collect the sand as it falls. This will make clean-up easier.



### Balancing Acts: Act 1

- Make sure your binder clips are aligned and clipped to the same end of your acrobat. This will help with balance. You can also experiment by placing the clips in different locations to see how they affect the acrobat's balance.
- Experiment by balancing your acrobat on all sorts of objects, like on the corner of a table or the end of a spoon.



### Balancing Acts: Act 2

- Be patient with this experiment; it involves moving the dowel very slowly left or right in tiny increments to keep your acrobats balanced. Take your time finding the balance point—every object has one!
- Adding more weight (acrobat) to your dowel will affect the balance point. Again, slowly move the dowel left and right in small increments to find the new balance point.
- Add tape to the knotted strings at the points where they meet the dowel to help secure the strings and acrobats.