## Non-obvious controls:

• If you are doing a lecture demonstration, set your screen resolution to 1024x768 so the simulation will fill the screen and be seen easily.

## **Important modeling notes / simplifications:**

• The cartoon figures holding the rope are displayed to help students understand why the objects stay apart.

## Insights into student use / thinking:

- Students need to measure from center of mass, but we want them to discover this on their own. If they use something else, like distance between outer edges, they should find that doesn't make sense.
- We avoided giving too many clues in the Learning Goals, so students would construct their own ideas, not just look up "Universal Law of Gravity"

## Suggestions for sim use:

- For tips on using PhET sims with your students see: <u>Guidelines for Inquiry Contributions</u> and <u>Using</u> <u>PhET Sims</u>
- The simulations have been used successfully with homework, lectures, in-class activities, or lab activities. Use them for introduction to concepts, learning new concepts, reinforcement of concepts, as visual aids for interactive demonstrations, or with in-class clicker questions. To read more, see <u>Teaching</u> <u>Physics using PhET Simulations</u>
- For activities and lesson plans written by the PhET team and other teachers, see: <u>Teacher Ideas &</u> <u>Activities</u>