Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour \_\_\_\_\_\_\_\_\_

**Ball on a String**

**Focus Question:** How does a ball stay in motion spinning around on a string?

**Safety Precautions**: Be sure that the strings are securely attached to the orbiting balls. When spinning, give the spinner plenty of room. DO NOT spin the ball too fats, the point is not to make the ball fly off the string.

**Procedure:**

1. Select the variable you will test. Fill in your variable section on your data chart below. Check this in with Ms. Murphy X\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(approval)

2. Spin the ball and record observations of its motion. Use arrows and symbols to represent speed and direction

3. Clean up your lab area, and answer the comprehension questions.

|  |  |  |
| --- | --- | --- |
| Trial # and changed variable | Labeled Diagram of your model | Observations of orbit motion or lack of motion |
|  |  |  |
|  |  |  |
|  |  |  |

**Comprehension Questions: Answer the following questions using complete sentences and a restate.**

1. What is causing the ball to move in a circle?

2. What does the ball WANT to do or to go?

3. How does inertia play a role in the investigation?

4. What kind of things orbit?

5. What does it mean for an object to orbit?

6. What are we modeling with our ball and string model?

7. What is the main force in action during this model?