Potential and Kinetic Energy Slingshot Lab Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Materials

-Rubber Band

-Penny

-tape measure

Procedure

1. Using two fingers, carefully stretch a rubber band on the table until it has no slack.
2. Place a penny on the table, slightly touching the midpoint of the rubber band.
3. Push the nickel back 0.5 cm into the rubber band and release. Measure the distance the penny has traveled in millimeters. Record this number in the table.
4. Repeat steps 3 and 4, each time pushing the penny back an additional 0.5 cm

|  |  |
| --- | --- |
| Distance you pulled the penny back | Distance the penny traveled |
| 0.5 cm |  |
| 1 cm |  |
| 1.5 cm |  |

Conclusion:

1. Describe how the distance that the nickel travels depends on the distance that you stretch the rubber band.
2. Infer how the takeoff speed of the nickel depends on the distance that you stretch the rubber band.
3. Where during the lab is there potential energy demonstrated?
4. Where during the lab is there kinetic energy demonstrated?
5. Infer how the kinetic energy from the nickel’s motion depends on the distance that you stretch the rubber band.