1. Hypothesize which object you think will have the most potential energy and why?

2. Fill in this chart.

|  |  |  |  |
| --- | --- | --- | --- |
| Object Height | Ball Trials | Paper Trials | Paper Clip Trials |
| 1M |  |  |  |
| 2M |  |  |  |
| 3M |  |  |  |
| 4M |  |  |  |
| 5M |  |  |  |

1. Draw a graph to represent this data. We are using TRIALS!! Use the appropriate graph and make a key.

5. Fill in this chart using your documents A-G.

|  |  |  |  |
| --- | --- | --- | --- |
| Object | Height (meters) | PE (Joules) | Weight (Newton’s) |
| Ball | 5 m |  |  |
| Paper Clip | 5 m |  |  |
| Paper | 5 m |  |  |

6. Use this equation: GPE = w × h, to find the gravitational potential energy of each object. Show your

 math work on this sticky and box your anwers. Answers should be recorded in kg when you discover

 the mass of each object. The G=9.8 m/s2 as this is the gravitational constant for a free falling object.

 PE is given to you on your Documents (be sure to multiply by G before entering answers into chart)

7. Choose a Document A-G. The potential energy (PE) of each object is given in joules (J). List the objects in order from

 lowest to highest potential energies **for two** of the documents A-G. Place letter on top of T Chart.

 Document One Document Two

8. Summarize: What is the relationship between an object’s height above the ground and its gravitational potential

 Energy in 4-5 sentences.

9. Infer: Place the ball and the paper on the same shelf.

 A. Which object has more potential energy?

 B. Why do you think their potential energies are different?