PLEASE SUBMIT YOUR WORK THROUGH GOOGLE CLASSROOM

Imagine yourself at the International Science Olympiad (2). Your team is brought into an empty room. In the far corner of that room, sitting on a large weighing scale, there **appears SOMETHING which looks like a large black sphere**. You have never seen anything like this. **It is unclear if the SOMETHING is soft or hard, solid or liquid or gas.** You are told that it is a non-living thing.

You are given a **task to observe the SOMETHING from the distance** (you cannot come close), **give it a name** (scientists always give a name when they discover something), and **figure out as much as possible about it** (determine its properties and maybe try to find out what's inside). You are expected to **design and implement several experiments** for that purpose.

You can request and use whatever instruments or objects that you need, however you are forbidden to use your five human senses directly (you cannot touch the SOMETHING with your hands, smell or taste it; looking at it does not give you much, as stated above). Your time limit is 8 hours.

You are assured that whatever you do to the SOMETHING, it will not hurt you, so, you can plan any wild kind of experiments. You are assured that if during your experiment the SOMETHING gets damaged, it will be replaced with a new one so you can continue your exploration (if you blow it up you can blow it up again and again).

What would you do?

Try to come up with **at least three different experiments to perform**. Use a separate sheet of paper to describe your proposed experiments. Good luck!!!