

NAME:

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1. **On December 18, OUR LAST CLASS BEFORE THE WINTER BREAK, we will play a TRIVIA GAME based on what we have learned/reviewed so far.**

**Please read the game description that was given to you separately.**

**You should begin to study for it now: this week please review Lectures ##1-6.**

2. **Imagine yourself at the International Science Olympiad 😊**. 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 pitch-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 a distance** (you cannot come close), **figure out as much as possible about it (determine its properties and try to find out what's inside)**, and **give it a name** (scientists always give a name when they discover a *something*). You are expected to **design and implement several different experiments** for that purpose, the more the better.

**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). You are allowed to throw things at it, put it on fire, heat it, cool it, use magnets, anything that works from a distance.

Your time limit is 8 hours including the lunch break 😊.

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 page to describe your proposed experiments. Good luck!!!