

17.6: Thinking about the Material

17.6.1: Reflect and research

1. Could Gauss' law be applied to magnetism? Why or why not?
2. What else has Gauss done?
3. Are there other interaction for which Gauss' Law can be applied?
4. What are Maxwell's equations?
5. How are measurements of flux used in environmental research?
6. How does one use Gauss' Law to test the $1/r^2$ dependence of Coulomb's Law?

17.6.2: To try in the lab

1. Propose an experiment to measure the charge of an object using Gauss' law.
2. Propose an experiment to measure the electric field of a charged object, then compare your experimental results to the theoretical results predicted calculated by Gauss' law.
3. Simulate the surface charge distribution on the inside and outside of a conducting cubic shell which encloses a point charge.

This page titled [17.6: Thinking about the Material](#) is shared under a [CC BY-SA 4.0](#) license and was authored, remixed, and/or curated by [Ryan D. Martin, Emma Neary, Joshua Rinaldo, and Olivia Woodman](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- [17.6: Thinking about the Material](#) by Ryan D. Martin, Emma Neary, Joshua Rinaldo, and Olivia Woodman is licensed [CC BY-SA 4.0](#).
Original source: <https://github.com/OSTP/PhysicsArtofModelling/blob/master/README.md>.