

17.6: Thinking about the Material

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?

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.

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