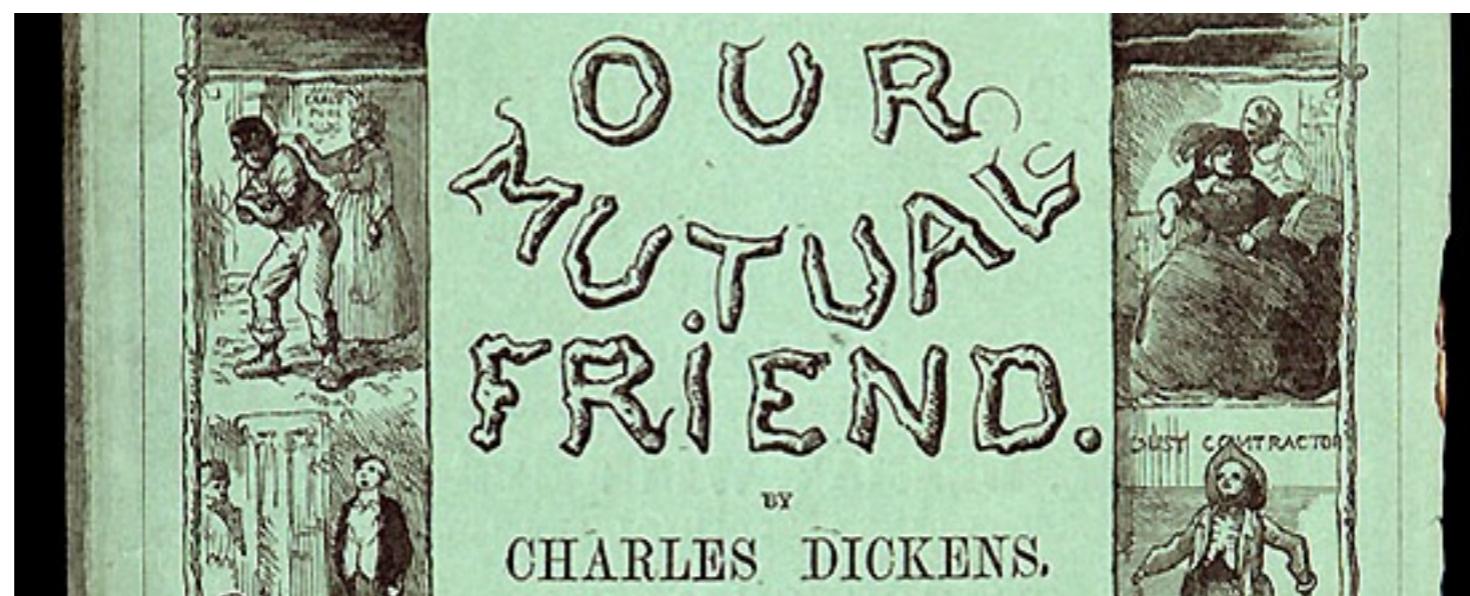


“Then idiots talk” said Eugene, leaning back, folding his arms, smoking with his eyes shut, and speaking slightly through his nose, “of energy If there is a word under any letter from A to Z that I abominate, it is energy. It is such a conventional superstition, such parrot gabble!”

Charles Dickens
Our Mutual Friend (1865)



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SES 194

Energy in Everyday Life

Temperature - Kinetic Energy

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We have all used a thermometer - to check for a fever, see if the Thanksgiving turkey is safely cooked, or to help us decide how to dress before leaving home for the day/night.

How does a thermometer work? And when you measure temperature, just what exactly are you measuring?



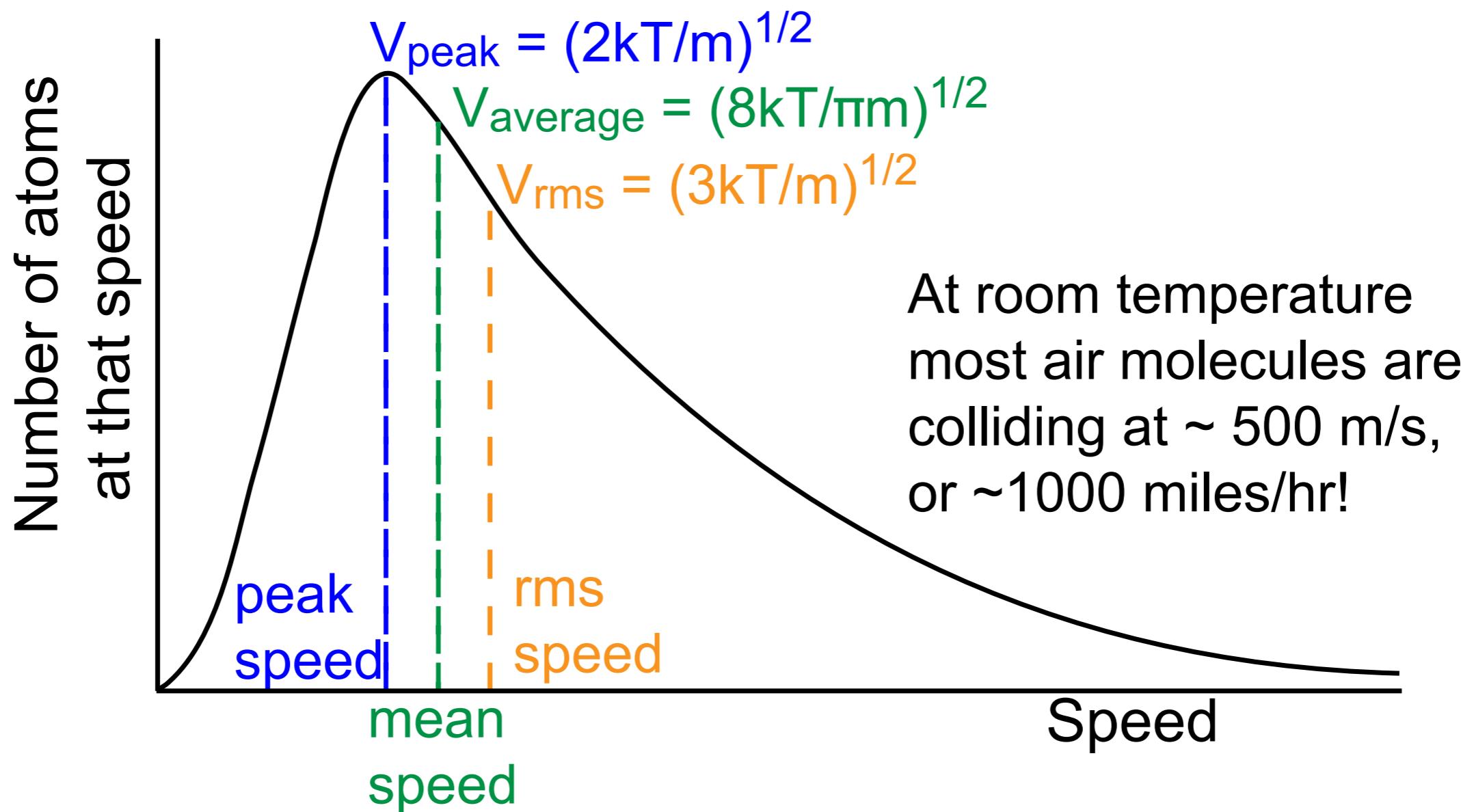
The prefix **thermo-** means *heat* in Greek. A thermos keeps heat in or out. You wear thermal clothing to prevent body heat from escaping. Thermodynamics is the study of heat.



Despite its name, a thermometer does not measure heat, but rather temperature. **Temperature and heat are quite different quantities.**

Temperature is a measure of the kinetic energy of the molecules within a substance.

When you record the temperature, you are measuring how fast the molecules are moving.



Nerd Alert

When you are outside one January instead of saying, “Wow, its cold out this morning!,” you could say “Wow, the molecules in the air are moving slow this morning!”.

