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Teaching About Variables in Magnetism to Fifth and Sixth Graders MICHAEL BIRNKRANT, MATTHEW CATHELL, Material Sci & Eng Dept., Drexel University, Philadelphia, PA, PRISCILLA BLOUNT, JEAN ROBINSON, Martha Washington Elementary School, Philadelphia, PA, ADAM FONTECCHIO, ELI FROMM, Electrical & Computer Eng Dept., Philadelphia, PA — Middle school students are very familiar with using computers, but many are unaware of how a computer stores information. We develop a module to explain how computers store and retrieve information from a hard drive. The module was part of the year-long NSF GK-12 outreach program between Drexel University and local Philadelphia middle schools. The module complements the variables portion of their science and math curriculum. The module introduces magnetism as well as the link between the physical state of a hard drive and the picture on the screen. This module and others have contributed to improvements both in their classes and on their benchmark exams.

Michael Birnkrant
Material Sci & Eng Dept., Drexel University, Philadelphia, PA

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