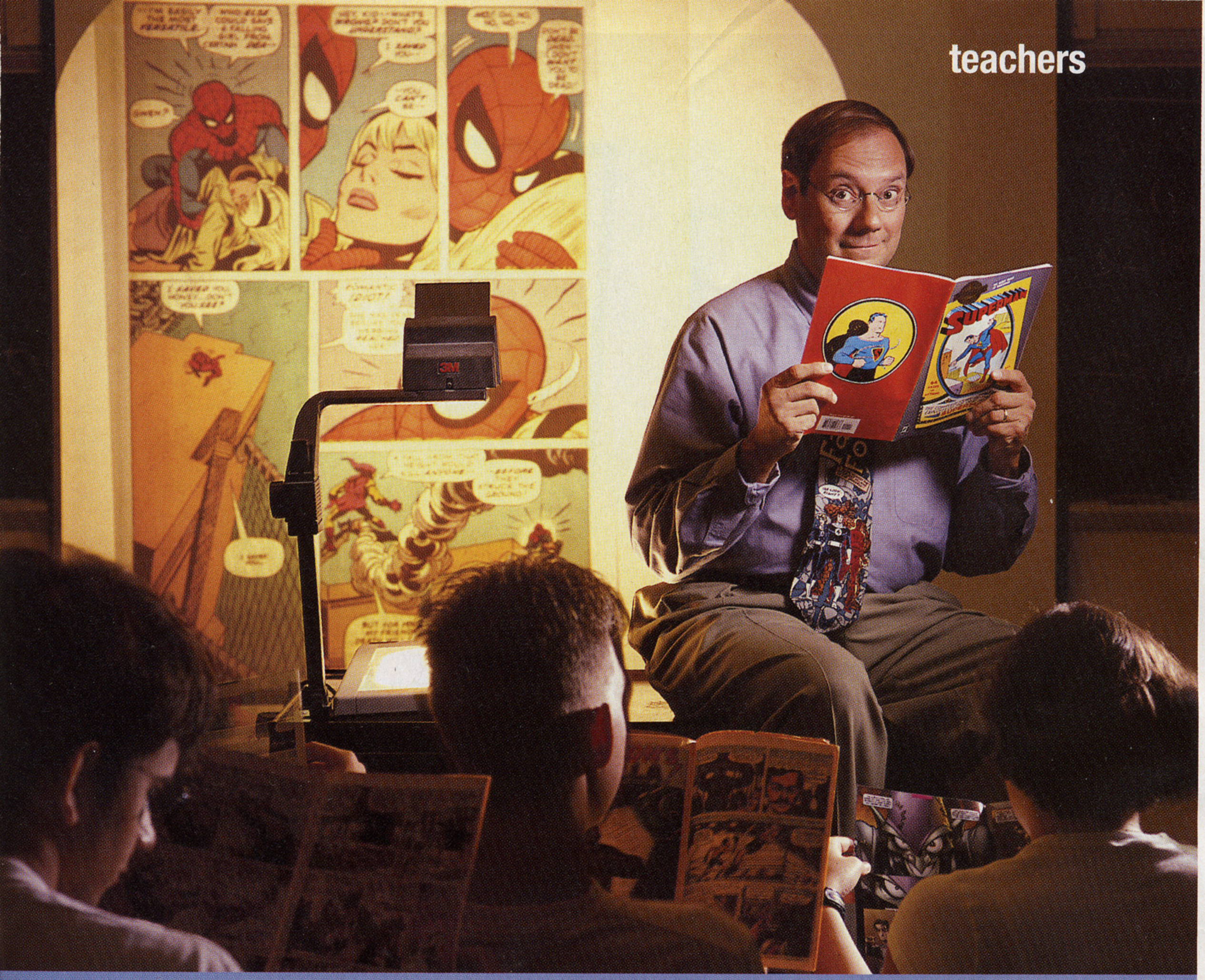

"What I'm doing is very sneakily teaching students how to think critically and scientifically," says Kakalios (in class).

Pow! Zap!...Physics?

Prof. Jim Kakalios spices up science with a colorful teaching tool: comic books

At the University of Minnesota, 15 freshmen are grappling with one of the great problems of physics: What killed Spider-Man's girlfriend Gwen? When the Green Goblin pushed her off a bridge, it appeared that the superhero's webbing snared her in the nick of time. Yet she died. Why? "It's no surprise," says Prof. Jim Kakalios. By catching her so abruptly, he explains, Spidey exerted 10 times the force of gravity, breaking Gwen's neck.

Somewhere Isaac Newton must be smiling—even if he's a tad perplexed to see his laws applied to Science in Comic Books, a seminar Kakalios, 44, devised to make physics accessible—even enjoyable. "It's one thing to say, 'Force equals mass times acceleration.' We actually do stuff with it," says Kakalios. A lifelong comics devotee, he started the course in 2001, addressing such brainteasers as "How fast must Superman travel to leap a 660-ft. building in a single bound?" (140 mph) and "Could the Flash vibrate himself free if Captain Cold trapped him in a block of ice?" (Yes. The kinetic energy would melt the ice.)

Students consider Kakalios superheroic. "The class is one of the things that convinced me to come to Minnesota," says engineering major Jay Plath, 19. The Queens-born professor had forsaken comics in high school after "discovering girls" but found escape in his old hobby as a stressed-out University of Chicago grad student. Now a married father of three, he devours four comic books a week—all in the line of duty. "A dirty job," Kakalios says, "but somebody's gotta do it." ●

Photograph by **BLACK/TOBY**