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Can Youthful Students be Encouraged to Self-repair Damaged Vision Using Elementary Mathematics and Physics Principles? NADJA FERREIRA, Camaragibe, PE, Brazil, ROGER MCLEOD¹, University of Massachusetts, Lowell — Safe and easy self-repair of damaged vision in youth, detected from squinted eyes, motivated by simple applied math and physics, and over-stretched elastics. Parental permission and participation, with math skills of numerical cancellation, bring physics understanding to students. They recognize pupil diameter changes with light intensity. Ideas of focal surfaces and wavelength dependence can be achieved by burning paper with a magnifying glass, and dispersing light with a prism. Safeness of eye and head movements required are like those of the mother in applying makeup, or of a father in shaving. Easily defined, performed and monitored visual tasks can complete the repair(s).

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