In this talk I will discuss the idea of a meta-structure for elementary and middle school mathematics. In an era of increasingly prominent (and detailed) grade-level standards, I will discuss the need for teachers, curriculum developers, and standards-writers to cultivate the habit of regularly revisiting this bird’s eye view of the K-16 curriculum. I will then argue that the right kind of Calculus course can help teachers develop such a perspective. Clever lessons on integration by parts will not be discussed. (Received February 05, 2008)