Kerr's (1972) model of the curriculum was an improvement over Tyler's (1949) model. It is, however, known that new concepts, knowledge and methods of teaching invariably influence the curriculum and hence its development. For example Shulman's (1986) concept of Pedagogical Content Knowledge (PCK) and van den Akker's (2004) concept of Levels of the Curriculum have greatly influenced curriculum development and implementation. For this reason this paper critically assessed Kerr's model of the curriculum in the light of emerging curriculum concepts and knowledge and how it could be modified to make it suitable for a more effective science education. The paper looked at the strengths and weaknesses of Kerr's model and proposed a new and simpler model of the curriculum. The usability of the proposed model is illustrated through specific examples that indicate how it can be adapted to various levels of the curriculum. Key Words: Pedagogical, usability, competencies, multitudinous, constraints.