Statistics curricula world-wide are undergoing a period of review and reflection. Curriculum change requires an articulation of ambitions and purposes, exemplified by curriculum materials and assessment tasks. Whatever the curriculum specification, it is high-stakes assessments that drive the enacted curriculum. The GAISE Report sets out a broad vision for statistics, and provides an extensive collection of illustrative assessment tasks. We have developed a comprehensive analytical framework which encompasses rather more radical views of what the statistics curriculum should comprise. We classify the GAISE tasks, and identify strengths and areas which will benefit from further development. We provide examples of tasks designed to assess emerging goals for statistics education, and to extend GAISE. Conceptual frameworks are essential for curriculum reform; they offer a focus for discussing curriculum ambition. If new educational goals cannot be exemplified by assessment tasks, then reform efforts will fail.