GRADES 6-8

Mathematics Assessment Sampler

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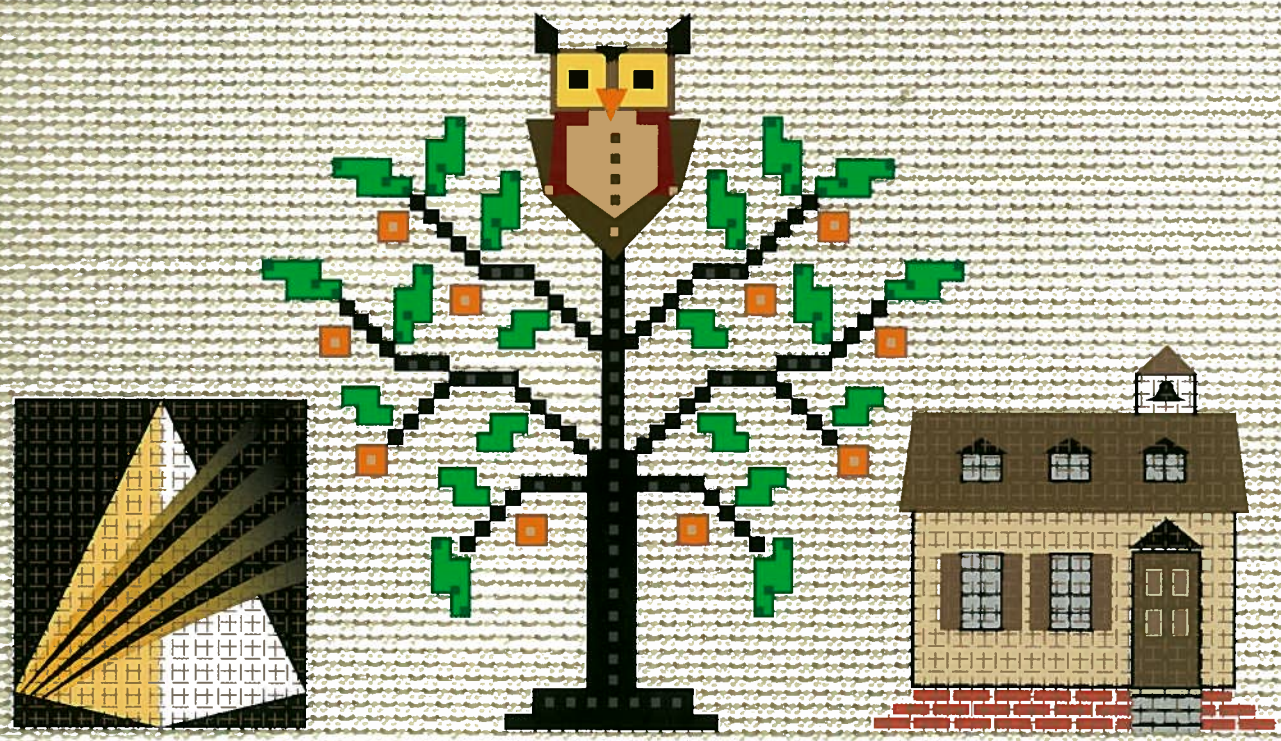
ITEMS ALIGNED WITH NCTM's *PRINCIPLES AND STANDARDS*



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Mathematics Assessment Sampler, Grades 6–8

Assessment is driving many educational decisions, including grade placement, graduation, and teacher evaluation. With that influence in mind, educators need to use good assessment material as an essential tool in the teaching and learning processes. This series was designed to present samples of student assessment items aligned with NCTM's *Principles and Standards for School Mathematics*. The problems, which were designed as formative assessments, focus on students' conceptual knowledge as well as their procedural skills and are suitable for use as benchmark assessments or as evaluations of how well students have met particular NCTM Standards and Expectations. Each volume includes student work with comments; multiple-choice, short-response, and extended-response questions; teacher notes; a chapter for professional development; a bibliography with a resources section; and a matrix that identifies the particular NCTM Standards and Expectations related to the assessment items.

Grades 6–8

The Assessment Sampler Grades 6–8 task force compiled this volume from many sources, including state and provincial assessments. The collection of sample assessment items is sorted according to the strands of–

- number and operations,
- algebra,
- geometry,
- measurement, and
- data analysis and probability.

Because students are assessed on standardized tests with a preponderance of multiple-choice items, the writing team chose samples of such items as well as explanations for the answer choices in many items. The items also include short-answer and extended-response problems designed to give students opportunities to demonstrate their skills and understanding. "Teacher notes" to suggest ideas for making multiple-choice items more meaningful, and a variety of rubrics, are also included.

The professional development chapter is designed to help in-service and preservice teachers understand and use levels of complexity for particular problems, use and adapt multiple-choice items, use assessment tasks as an in-service topic, employ scoring rubrics, use technology in assessment, and design their own assessment items.

The hope is that teachers find this compilation of problems and items interesting and helpful as they seek to learn about their students' thinking and consider how their students' responses might guide their instruction.

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