















Countries participating in TIMSS aim for a sample of at least 4,500 students to ensure that there are enough respondents for each item. The 14 student booklets are distributed among the students in each sampled class according to a predetermined order, so that approximately equal proportions of students respond to each booklet.

Students' knowledge and understanding of mathematics and science are assessed





multiple-choice items (1 point each) and constructed-response items (typically 1 or 2 points) that allow for partial as well as full credit. The exact number of score points and the exact distribution of item types per block varies somewhat.

TIMSS 2015 is the sixth in the TIMSS series of regular four-year studies, and provides data on trends in mathematics and science achievement over a 20-year period, from 1995 through 1999, 2003, 2007, and 2011, to 2015. TIMSS will be administered again in 2019, 2023, and so on into the future. With each assessment, as the international reports are published, many items are released to provide the public with as much information as possible about the nature and contents of the assessment. At the same time, the measurement of trends is safeguarded by keeping secure a substantial proportion of the items. As items are released, new items will be developed to take their place.

According to the TIMSS 2015 design, 6 of the 14 assessment blocks in each subject will be released when the assessment results for 2015 are published, and the remaining 8 will be kept secure for use in later assessments. The released blocks will include three blocks containing trend items from 2007, two blocks of trend items from 2011, and one block of items used for the first time in 2015.


The released items will be replaced with new items before the next survey cycle, in 2019.

The assessment design for TIMSS Numeracy 2015 consists of 10 blocks of numeracy items (10–15 per block) as shown in Exhibit 14. As the inaugural year for TIMSS Numeracy, all of the items are newly developed for 2015. Two TIMSS Numeracy 2015 item blocks—N02 and N08—will consist of TIMSS 2015 mathematics items—item blocks M02 and M08, respectively, from the fourth grade assessment. The numeracy item blocks will follow the same development guidelines described in the Question Types and Scoring Procedures section with respect to the use of multiple-choice and constructed-response items.









designed to collect basic information about the organization of the mathematics and science curriculum in each country, and about the content of these subjects intended to be covered up to the fourth and eighth grades. It also includes questions on attrition and retention policies, the local or national examination system, as well as goals and standards for mathematics and science instruction.

The *TIMSS 2015 Encyclopedia* provides context for mathematics and science instruction in the participating countries. Information from the curriculum questionnaire is reported along with a chapter prepared by each country providing information about the countries' education systems and policies, including emphasis placed on mathematics and science. In addition, each country summarizes its mathematics and science curriculum including information about instructional time and the use of instructional materials, equipment, and technology. Teachers' educational training and professional development also is described, as well as information about examinations

