

Appendix C



Country Adaptations to Items and Item Scoring

Fourth Grade

Items deleted

ALL COUNTRIES

M09_04, M13_04 Mathematics (faulty distracters)
S08_07, S09_06, S12_10 Science (faulty distracters)

ALGERIA

M08_08, M10_09, M12_13B Mathematics (scorer reliability less than 70%)
S06_05 Science (poor discrimination)
S08_05 Science (scorer reliability less than 70%)

AUSTRIA

S07_02 Science (translation error)

COLOMBIA

S11_04 Science (too few valid responses)

DENMARK

M11_03 Mathematics (printing error)

DUBAI, UAE

M09_05 Mathematics (negative discrimination)

EL SALVADOR

M05_03 Mathematics (poor discrimination)

GEORGIA

M03_03, M05_06 Mathematics (negative discrimination)
S04_04 Science (scorer reliability less than 70%)

HONG KONG SAR

S10_05 Science (negative discrimination)

IRAN, ISLAMIC REP. OF

S10_05 Science (negative discrimination)

KUWAIT

S07_10 Science (negative discrimination)

S11_04 Science (erroneous application of scoring guide)

LATVIA

M04_07 Mathematics (scorer reliability less than 70%)

S01_01A, S02_13B, S03_07, S04_04, S10_03, S10_06A, S10_06B Science
(scorer reliability less than 70%)

LITHUANIA

M09_08, M09_09 Mathematics (printing error in Booklet 8 only)

S06_12 Science (translation error)

MONGOLIA

M02_08A, M02_08B, M02_08C, M02_08D, M03_08A, M03_08B, M03_08C
Mathematics (administered without manipulatives)

M08_04B Mathematics (erroneous application of scoring guide)

S04_11, S06_13A, S06_13B, S08_09A, S11_06, S14_10B, S14_12 Science
(erroneous application of scoring guide)

S05_02A, S05_02B Science (scorer reliability less than 70%)

S10_04 Science (negative discrimination)

MOROCCO

M10_09, M12_13B Mathematics (scorer reliability less than 70%)

QATAR

S07_10 Science (negative discrimination)

SWEDEN

S04_04, S08_09B Science (scorer reliability less than 70%)

TUNISIA

M08_03 Mathematics (poor discrimination)
 S04_14 Science (negative discrimination)
 S07_10 Science (poor discrimination)
 S08_08 Science (too few valid responses)

Constructed-response items needing category recoding**ALL COUNTRIES**

M02_11, M03_10 Mathematics (recode 11 to 70)
 M04_09A Mathematics (recode 11 to 71)
 M08_08 Mathematics (recode 20 to 10, 10 to 70)
 M09_12 Mathematics (recode 20 to 10, 10 to 71)
 M13_01C Mathematics (recode 21 to 12)
 S06_03 Science (recode 20 to 10, 10 to 79)
 S06_04 Science (recode 11 to 70)
 S06_06 Science (recode 19 to 70)
 S06_12, S06_13A, S06_13B Science (recode 19 to 10)
 S08_09A Science (recode 11 to 10)
 S09_08 Science (recode 20 to 10 and 10, 11, 12 to 79)
 S09_10 Science (recode 19 to 10)
 S10_10 Science (recode 13 to 11)
 S11_04 Science (recode 19 to 79)
 S11_06 Science (recode 70 to 79)
 S12_09 Science (recode 70 to 11)
 S13_04 (recode 19 to 10)
 S13_10 Science (recode 71 to 70)
 S14_06 Science (recode 21 to 10 and 10, 11, 70 to 79)
 S14_10A Science (recode 19 to 10, 11 to 79)
 S14_10B Science (recode 19 to 79)
 S14_10A and S14_10B combined to form S14_10D,
 a new 2-point item, as follows:
 If S14_10A=10 and S14_10B=10 or 11, S14_10D → 20.
 If S14_10A=10 or S14_10B=10 or 11, S14_10D → 10.
 Otherwise, S14_10D → 70.

Eighth Grade

Items deleted

ALL COUNTRIES

M02_15 Mathematics (poor discrimination)

S03_08 Science (poor discrimination)

S06_12C Science (faulty scoring guide)

S10_16, S14_13 Science (faulty distracters)

ALGERIA

M02_04 Mathematics (negative discrimination)

M04_05B Mathematics (scorer reliability less than 70%)

S14_07 Science (negative discrimination)

BAHRAIN

S08_09 Science (negative discrimination)

BASQUE COUNTRY, SPAIN

M02_04 Mathematics (negative discrimination)

BOSNIA AND HERZEGOVINA

M10_12B Mathematics (negative discrimination)

BOTSWANA

M07_03, M09_02, M09_10 Mathematics (negative discrimination)

S01_01, S08_10 Science (poor discrimination)

S11_09 Science (negative discrimination)

BULGARIA

S13_12, S14_02 Science (scorer reliability less than 70%)

CHINESE TAIPEI

S04_09 Science (scorer reliability less than 70%)

S09_07 Science (negative discrimination)

COLOMBIA

M11_13A Mathematics (too few valid responses)

CYPRUS

M09_13 Mathematics (erroneous application of scoring guide)

EGYPT

S08_09 Science (negative discrimination)

GEORGIA

M07_06, M12_13 Mathematics (negative discrimination)

S09_02 Science (poor discrimination)

S10_17, S14_02 Science (scorer reliability less than 70%)

GHANA

S01_01 Science (poor discrimination)

S06_02, S10_03, S11_09 Science (negative discrimination)

INDONESIA

S11_09 Science (poor discrimination)

ITALY

M03_10 Mathematics (poor discrimination)

S14_04A, S14_04C Science (scorer reliability less than 70%)

JAPAN

S10_17, S13_03, S13_12 Science (scorer reliability less than 70%)

JORDAN

M13_08 Mathematics (negative discrimination)

KOREA, REP. OF

S08_04 Science (negative discrimination)

KUWAIT

M04_07 Mathematics (negative discrimination)

S08_09 Science (negative discrimination)

LEBANON

S04_11C Science (negative discrimination)

MINNESOTA, US

S09_07 Science (negative discrimination)

MONGOLIA

M03_10, M06_13, M11_08 Mathematics (poor discrimination)
 M05_07C Mathematics (erroneous application of scoring guide)
 M08_12 Mathematics (negative discrimination)
 S04_11B, S05_08, S06_03, S06_07 Science (erroneous application of scoring guide)
 S06_08 Science (poor discrimination)
 S07_08, S10_07 Science (negative discrimination)
 S10_06, S10_09, S10_10, S10_12, S10_17 Science (scorer reliability less than 70%)

MOROCCO

M02_04, M04_13 Mathematics (negative discrimination)
 S01_06, S03_12, S04_04, S10_09, S10_12, S11_04 Science (scorer reliability less than 70%)
 S08_09, S09_07 Science (negative discrimination)

NORWAY

M02_02 Mathematics (printing error in Booklet 2 only)
 S11_10 Science (too few valid responses in Booklets 1-14 only)

OMAN

S07_08 Science (poor discrimination)

PALESTINIAN NAT'L AUTH.

M05_06 Mathematics (printing error)
 M07_03, M13_08 Mathematics (negative discrimination)
 S06_02 Science (poor discrimination)
 S07_08, S08_09 Science (negative discrimination)

QATAR

S06_02, S07_10 Science (poor discrimination)
 S10_06 Science (translation error)

ROMANIA

M12_14 Mathematics (negative discrimination)

SAUDI ARABIA

S08_09 Science (negative discrimination)

SERBIA

M10_12B Mathematics (negative discrimination)

S08_04 Science (poor discrimination)

SWEDEN

M10_08 Mathematics (negative discrimination)

S11_10 Science (too few valid responses in Booklets 1-14 only)

SYRIAN ARAB REPUBLIC

M07_03 Mathematics (negative discrimination)

S14_07 Science (negative discrimination)

THAILAND

S08_04 Science (negative discrimination)

TUNISIA

M11_02 Mathematics (translation error in Booklets 1-14 only)

S04_04, S10_17 Science (scorer reliability less than 70%)

UKRAINE

S04_04 Science (scorer reliability less than 70%)

Constructed-response items needing category recoding**ALL COUNTRIES**

M04_12A Mathematics (recode 11 to 70, 70 to 71)

M05_05 Mathematics (recode 20 to 10, 10 to 70)

M08_05 Mathematics (recode 11 to 70)

S01_08B Science (recode 20 to 11, 29 to 19)

S04_06 Science (recode 12 to 71)

S05_14B Science (recode 71 to 12, 72 to 71)

S06_07 Science (recode 10 to 20, 11 to 10, 70 to 11)

S07_11 Science (recode 20 to 10, 29 to 19, 10 to 12)

S08_12 Science (recode 20 to 10, 21 to 11, 29 to 19, 10 to 12)

S08_13 Science (recode 20 to 10, 10 to 70, 11 to 71)

S09_10B Science (recode 20 to 10, 29 to 19, 10 to 12)

S10_10 Science (recode 11 to 70, 70 to 71)

S12_12 Science (recode 11 to 70)

S14_02 Science (recode 21 to 20, 11 to 10)

S14_05 Science (recode 20 to 10, 21 to 11, 10 to 12)

Country Adaptations to Bridge Items and Bridge Item Scoring

Fourth Grade

Items deleted

ALL COUNTRIES

S02_08 Science (deleted in TIMSS 2003)

ARMENIA

S01_03, S01_04 Science (deleted in TIMSS 2003)

S11_04 Science (trend difference greater than two logits)

CHINESE TAIPEI

M05_10 Mathematics (scorer reliability less than 70%)

HUNGARY

M09_06A, M09_06B Mathematics (too few valid responses)

M14_06 Mathematics (deleted in TIMSS 2003)

S10_02 Science (deleted in TIMSS 2003)

IRAN, ISLAMIC REP. OF

S05_02 Science (trend difference greater than two logits)

S05_06 Science (deleted in TIMSS 2003)

LITHUANIA

M12_06C Mathematics (deleted in TIMSS 2003)

MOROCCO

M11_10 Mathematics (deleted in TIMSS 2003)

NETHERLANDS

S13_03 Science (deleted in TIMSS 2003)

TUNISIA

S05_06 Science (deleted in TIMSS 2003)

Eighth Grade

Items deleted

ALL COUNTRIES

M06_07, M06_11, M06_12, M06_13 Mathematics (calculator item in TIMSS 2003)

ARMENIA

S13_10 Science (erroneous application of scoring guide)

BAHRAIN

M10_10 Mathematics (poor discrimination)

BOTSWANA

M02_14 Mathematics (negative discrimination)
S02_01, S05_01 Science (deleted in TIMSS 2003)

CYPRUS

S02_01 Science (negative discrimination)

EGYPT

M01_12 Mathematics (deleted in TIMSS 2003)
S09_13, S14_01 Science (deleted in TIMSS 2003)

GHANA

M01_01 Mathematics (deleted in TIMSS 2003 in Booklet 12 (B4 in TIMSS 2007 only))
M01_05, M01_12, M01_14, M02_06, M02_07, M02_12, M02_14, M02_15, M05_09, M09_05, M09_10, M10_02, M10_03, M10_04, M10_05, M11_02, M11_05, M11_06, M11_10, M11_12, M12_04, M12_05, M12_09, M12_10, M13_02, M13_04, M13_05, M13_06, M13_09, M13_10, M13_11, M14_01, M14_05, M14_09 Mathematics (deleted in TIMSS 2003)
M02_04 Mathematics (negative discrimination)
M10_10 Mathematics (poor discrimination)
M12_03 Mathematics (not administered in TIMSS 2003)
S01_03, S09_03 Science (deleted in TIMSS 2003)
S09_06, S09_13 Science (negative discrimination)

HONG KONG SAR

S01_01, S11_05 Science (negative discrimination)

HUNGARY

S01_13 Science (negative discrimination)

INDONESIA

M02_04 Mathematics (deleted in TIMSS 2003)

M10_10 Mathematics (poor discrimination)

S01_08, S05_01 Science (negative discrimination)

IRAN, ISLAMIC REP. OF

S10_09A Science (negative discrimination)

ISRAEL

S09_06, S11_07 Science (negative discrimination)

ITALY

S10_10B Science (poor discrimination)

JAPAN

S01_09 Science (scorer reliability less than 70%)

S10_06 Science (poor discrimination)

JORDAN

M09_01, M14_02 Mathematics (deleted in TIMSS 2003)

S09_05, S09_06 Science (deleted in TIMSS 2003)

KOREA, REP. OF

S02_11 Science (deleted in TIMSS 2003)

S11_07 Science (negative discrimination)

LEBANON

M01_06 Mathematics (deleted in TIMSS 2003)

LITHUANIA

M02_14 Mathematics (translation error)

M13_08 Mathematics (negative discrimination)

S14_09 Science (deleted in TIMSS 2003)

MALAYSIA

M10_02 Mathematics (trend difference greater than two logits)

MOROCCO

S01_08, S01_12 Science (deleted in TIMSS 2003)

S01_11, S13_06, S14_03 Science (negative discrimination)

NORWAY

M13_08 Mathematics (negative discrimination)

M13_10 Mathematics (poor discrimination)

PALESTINIAN NAT'L AUTH.

S01_06, S01_16, S09_05, S09_06 Science (deleted in TIMSS 2003)

QUEBEC, CANADA

M05_08 Mathematics (deleted in TIMSS 2003)

ROMANIA

M01_05, M01_07, M01_14 Mathematics (printing error in B4 only)

M01_09, M10_07, M10_08, M10_09, M10_11, M12_01, M12_10, M12_12,

M12_13A, M12_13B, M12_13C, M14_03, M14_04A, M14_04B, M14_04C,

M14_05, M14_06 Mathematics (printing error)

M02_03, M02_04, M02_05, M02_08, M02_09, M02_11, M12_04, M12_05,

M12_08 Mathematics (printing error in Hungarian version only)

M12_11 Mathematics (deleted in TIMSS 2003)

S01_07 Science (trend difference greater than two logits)

S01_08 Science (printing error in B4 only)

S01_10 Science (printing error in Hungarian B4 only)

S05_11, S05_13, S06_05, S06_06 Science (printing error in Hungarian version only)

S06_08 Science (printing error in Hungarian B3 only)

S10_04, S10_09A, S10_09B, S10_10A, S10_10B, S12_11, S14_08A, S14_08B
Science (printing error)

SINGAPORE

M11_09 Mathematics (trend difference greater than two logits)

SLOVENIA

M10_09 Mathematics (too few valid responses)

S14_08B, S14_09 Science (deleted in TIMSS 2003)

TUNISIA

M11_06, M12_13A Mathematics (trend difference greater than two logits)

S01_06, S05_01, S09_11, S10_01 Science (negative discrimination)

S09_13 Science (poor discrimination)

S13_01 Science (deleted in TIMSS 2003)

Constructed-response items needing category recoding**ALL COUNTRIES**

M13_14 Mathematics (recode 20 to 10, 10 to 70)

S09_03 Science (recode 20 to 10, 29 to 19, 10 to 12)

S10_06 Science (recode 20 to 10, 21 to 11, 22 to 12, 29 to 19, 10 to 71, 11 to 72, 19 to 79)

S13_10 Science (recode 20 to 10, 29 to 19, 10 to 70, 19 to 79, 70 to 71, 71 to 72)