Appendix D: Country Adaptations To Items and Item Scoring
## Country Adaptations To Items and Item Scoring

### D.1 Items To Be Deleted In Countries

<table>
<thead>
<tr>
<th>All Countries</th>
<th>M02 Mathematics (figure incorrectly drawn; no answer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>H07 Mathematics (Barchart histogram of travel time – y-axis mislabeled)</td>
</tr>
<tr>
<td>Canada, French</td>
<td>H07 Mathematics (Barchart histogram of travel time – y-axis mislabeled)</td>
</tr>
<tr>
<td></td>
<td>I02 Mathematics (4/5 of books more than 2/3 – option C missing; it is the key)</td>
</tr>
<tr>
<td></td>
<td>T04 Mathematics (Height of stack from paper thickness – stem not correct)</td>
</tr>
<tr>
<td>Cyprus</td>
<td>F03 Science (Humans interpret senses – Wrong in 95, kept the same)</td>
</tr>
<tr>
<td></td>
<td>H01 Science (Not a function of the blood – Wrong in 95, kept the same)</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>R01 Science (Bacteria/mold experiment – mistranslated stem)</td>
</tr>
<tr>
<td>Finland, Swedish</td>
<td>O04 Mathematics (Decimal rounded to nearest hundredth – mistranslated stem)</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>E12 Science (Stone in underground caves – poor discrimination)</td>
</tr>
<tr>
<td></td>
<td>J18 Mathematics (Distance between towns from map reduced; scale incorrect)</td>
</tr>
<tr>
<td></td>
<td>Z02 Science (Diagram of rain from sea – scoring reliability less than 70%)</td>
</tr>
<tr>
<td>Hungary</td>
<td>C12 Science (Substance Not a fossil fuel – “fossil fuels” in stem is mistranslated)</td>
</tr>
<tr>
<td>Indonesia</td>
<td>I12 Science (Interdependence among organisms – five options instead of four)</td>
</tr>
<tr>
<td></td>
<td>J05 Science (Gravity acting on rocket – negative discrimination)</td>
</tr>
<tr>
<td>Iran</td>
<td>B07 Mathematics (Graph showing greatest increase – stem mistranslated in 1995 and 1999)</td>
</tr>
</tbody>
</table>
Israel, Hebrew
I07 Mathematics (Area of paved walkway around pool – misprint in key C)
O11 Science (Chemical change involving elements – mistranslated key)

Israel, Arabic
I17 Science (Animal on Earth longest time – translation error)

Italy
L11 Mathematics (Graph of humidity in room – vertical scale on map incorrect)

Japan
E12 Science (Stone in underground caves – poor discrimination)

Jordan
I17 Science (Animal on Earth longest time – translation error)
N09 Science (Balancing 10 and 5 liter buckets – printing problem, figure not clear)

Korea
A11 Science (Overgrazing by livestock – misprint)

Latvia
E12 Science (Stone in underground cave – poor discrimination)
L03 Science (Physical characteristic of prey – mistranslated in stem)

Macedonia (Both Languages)
I11 Science (Observation of bubbling electrodes – negative discrimination)

Macedonia, Albanian
P09 Mathematics (Expression equivalent to n x n x n – stem misprinted; underscores between n’s instead of multiplication signs)

Macedonia, Macedonian
P09 Mathematics (Expression equivalent to n x n x n – stem misprinted; nothing between N’s)

Moldova (Both Languages)
G12 Science (Nonrenewable natural resource – negative discrimination)
R01 Science (Bacteria/Mold experiment – mistranslated stem)

Moldova, Russia
B07 Mathematics (Graph showing greatest increase – stem mistranslated)
E09 Science (Time/temperature table – mistranslated response options)
H07 Mathematics (Barchart histogram of travel time – y-axis mislabeled)

Morocco
P10 Mathematics (Diagram of similar triangles – error in labeled angle size)
P16 Mathematics (Day/Time in table at shown temperature – printing error; thermometer incorrectly shaded)
Country Adaptations To Items and Item Scoring

Philippines, Filipino
L03 Science (Physical characteristics of prey – mistranslation in stem)
P16 Mathematics (Day/Time in table at shown temperature – printing error; thermometer not shaded)

Romania, Hungarian
C12 Science (Substance Not a fossil fuel – “fossil fuels” in stem is mistranslated)

Romania, Romanian
E09 Science (Time/temperature table – Duplicate key resulting in double gridding)

Slovak Republic
F03 Science (Humans interpret senses – mistranslated stem)

South Africa, Afrikaans
B02 Science (Energy released from car engine – error in key, B)
H07 Mathematics (Barchart histogram of travel time – y-axis mislabeled)
I10 Science (Gas need for rust to form – poor discrimination)
I14 Science (Transmission of sound on the moon – five options instead of four)

Thailand
N17 Mathematics (Amount of paint left – mistranslated stem)
P16 Mathematics (Day/time in table at shown temperature – printing error; thermometer not shaded)

Tunisia
E12 Science (Stone in underground cave – poor discrimination)
O01 Mathematics (Graph of cooling water – printed twice in booklet)
P16 Mathematics (Day/time in table at shown temperature – printing error; thermometer not shaded)
U01 Mathematics (Printing error in table – missing “2” in first cooling time)

Turkey
I17 Science (Animal on Earth longest time – negative discrimination)
K11 Science (Thermometer scale for boiling water – negative discrimination)
R01 Science (Bacteria/mold experiment – negative discrimination)

Korea
C02 Mathematics (Pie graph of crop distribution – switch options C & D)

Moldova (Both languages)
I10 Science (Gas need for rust to form – switch options A and B)
D.3 Items Needing Free-Response Category Recoding

**Science**

P06 (Digestion in stomach)
- Recode 10 into 11
- Combine 20, 21, and 22 and recode into 10
- Recode 29 into 19

W02 (Two reasons for water shortage) – For W02D only!
- Recode 10 into 71
- Recode 20 into 10