

Exhibit 13.2: TIMSS 2015 Science Items for Concurrent Calibration at the Fourth Grade

| Item Type | Points | Items Released in 2011 | | Items Common in 2011 and 2015 | | Items Introduced in 2015 | | Total | |
|-------------------------|--------|------------------------------|--------|-------------------------------------|--------|--------------------------------|--------|-------|--------|
| | | Items | Points | Items | Points | Items | Points | Items | Points |
| Multiple-Choice | 1 | 42 | 42 | 47 | 47 | 35 | 35 | 124 | 124 |
| Constructed Response | 1 | 25 | 25 | 40 | 40 | 34 | 34 | 99 | 99 |
| | 2 | 5 | 10 | 8 | 16 | 4 | 8 | 17 | 34 |
| Total | | 72 | 77 | 95 | 103 | 73 | 77 | 240 | 257 |

TIMSS 2015 Fourth Grade Science Items for Concurrent Calibration by Content and Cognitive Domains

| Science Content Domains | Items Released in 2011 | | Items Common in 2011 and 2015 | | Items Introduced in 2015 | | Total | |
|----------------------------|------------------------------|--------|-------------------------------------|--------|--------------------------------|--------|-------|--------|
| | Items | Points | Items | Points | Items | Points | Items | Points |
| Life Science | 30 | 32 | 44 | 49 | 30 | 33 | 104 | 114 |
| Physical Science | 28 | 29 | 32 | 32 | 29 | 30 | 89 | 91 |
| Earth Science | 14 | 16 | 19 | 22 | 14 | 14 | 47 | 52 |

| Science Cognitive Domains | Items Released in 2011 | | Items Common in 2011 and 2015 | | Items Introduced in 2015 | | Total | |
|------------------------------|------------------------------|--------|-------------------------------------|--------|--------------------------------|--------|-------|--------|
| | Items | Points | Items | Points | Items | Points | Items | Points |
| Knowing | 30 | 34 | 38 | 41 | 29 | 32 | 97 | 107 |
| Applying | 31 | 32 | 39 | 42 | 27 | 28 | 97 | 102 |
| Reasoning | 11 | 11 | 18 | 20 | 17 | 17 | 46 | 48 |
| Total | 72 | 77 | 95 | 103 | 73 | 77 | 240 | 257 |