McGraw-Hill Education
Publisher's Response to
EdReports.org Evaluation of
Everyday Mathematics 4, Grades K-2

After a careful and thorough analysis of the EdReports review of *Everyday Mathematics 4*, McGraw-Hill Education and the author team from the University of Chicago found it to be incomplete, inaccurate, and misleading. It fails to provide an authentic representation of the curriculum and its alignment to the Common Core State Standard for Mathematics (CCSS-M) and the Publishers' Criteria.

While extensive and undeniable evidence of the strengths and successes of *Everyday Mathematics* exists—other independent review panels, efficacy research, success stories, decades-long iterative development, field testing, academic research —the EdReports review takes a shallow and incomplete look at the curriculum.

▶ Why is the EdReports review of *Everyday Mathematics 4* incomplete, inaccurate, and misleading?

- **The review often misinterprets the CCSS-M as well as the coverage of the CCSS-M in *Everyday Mathematics 4*.**
- **The EdReports process and tools were not well-suited to evaluating a spiral curriculum.**
- **The review persistently overlooks rigorous instruction and support for mathematical discourse in *Everyday Mathematics 4.***
- **The review applies arbitrary criteria that are not a part of the EdReports evidence guides.**
- **The review has numerous errors and inaccuracies.**

Fundamentally, the report failed because the process, tools, and reviewers were unable to accurately evaluate a research-based spiral curriculum like *Everyday Mathematics 4*. A spiral curriculum depends on distributed instruction and practice, with multiple exposures to concepts, skills, and applications carefully articulated in combination with other, concepts, skills, and applications. Research has repeatedly found that a spiraling approach is best for deep, enduring learning.

Creating a spiral curriculum requires the thoughtful weaving of learning trajectories within and across grades. In order to capture the depth and connectedness of learning that a spiraled approach enables, a successful review of a spiral curriculum must consider the entire progression, not just isolated moments of instruction, lessons, or activities. Unfortunately, it is clear that EdReports' tools, Evidence Guides, and process respond well to labeling, but are

challenged to accurately review rich, intricate curriculum such as *Everyday Mathematics 4*. Clarity of labeling is not more important than meaningful curriculum engineering.

We respect the mission of EdReports and will continue to work with it to help improve the integrity of its processes by identifying issues in the review of *Everyday Mathematics 4*.

▶ How does *Everyday Mathematics 4* support the CCSS-M and the Publishers' Criteria?

Everyday Mathematics 4 was developed over six years, beginning in 2010. During this time, the author team conducted an extensive review of research in the learning sciences and an exhaustive study of both the CCSS-M and the Publishers' Criteria. Lessons were rigorously field tested with over 1,400 students across the country, a process that drove continuous and iterative improvements before publication.

It is our opinion that *Everyday Mathematics 4* is the best researched and most carefully developed Common Core curriculum available.

▶ Is there evidence of this report's weaknesses?

Due to space limitations, we can provide only a few examples of the numerous examples of flaws we found with the review. If you would like a more comprehensive list, go to:

www.cemse.uchicago.edu/edreports

▶ What are some examples of issues with this report?

Below are several examples where the report falls short.

Misinterpretations of CCSS-M and *Everyday Mathematics* Content

Across the grades, the reviews frequently misinterpretate the standards for mathematical content and of how those standards are presented in the curriculum.

Issue: Review Confused Mass and Weight

In Kindergarten, Indicator 1a, the initial EdReports Review we received stated: *The material assess the use of a pan balance. Pan balances are meant to measure mass, a Grade 3 expectation (3.MD.A.2), not weight. To use the pan balance to measure weight, the gram weights would need to be used.*

This comment, which was eventually deleted by EdReports after we pointed out their error, reveals a lack of understanding on the reviewer's part of weight and mass and also of the relevant Kindergarten Measurement and Data standards, which call for direct comparisons of weight, for which a pan balance is a completely appropriate tool.

EdReports Process and Tools Were Challenged to Review a Spiral Curriculum

A thorough review of a spiral curriculum cannot simply examine individual lessons in isolation. Instead, the review must track standards across multiple activities, lessons, and units. Only then is the full breadth of coverage evident so that the program's level of focus, coherence, and rigor can be evaluated.

Issue: Counting Lessons, Not Coverage

In Grade 2, Indicator 1e, the EdReports Review states: *The content does not always meet the full depth of standards. This mainly occurs because of a lack of lessons addressing the full depth. For example, there are seven lessons which address 2.OA.1; however, only three of them are subtraction.*

It is clear that the reviewer did not understand the spiral at work here and overlooked numerous practice opportunities beyond the initial lessons that address the full depth of the standard. There are 153 separate exposures (problems and activities) to this standard in the Grade 2 curriculum, of which 34 in the first semester alone have to do with subtraction.

Failure to Recognize Rigor and Mathematical Discourse

The review consistently overlooks or discounts instruction that supports conceptual development, procedural fluency, and application.

Issue: Failure to credit instruction that develops fluency with procedural skill and fluency.

In Grade 1, Indicator 2b, the EdReports Review states: *Addition and subtraction within ten is given enough time and focus for students to develop the fluency. However, the following fluencies are not given the time and focus needed:*

- *1.NBT.A.1: "Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral." Most of the lessons in this series focus on numbers under 100. Lessons where students either work with or at least see numbers over 100 occur in 1-11, 3-8, 5-6 (only in the homework), 5-12 (using the number grid to subtract), and lesson 9-9 (homework to 107). Number of the day Routine does give the student work with numbers larger than 100.*
- *1.OA.A.2: Word problems with three addends. This only occurs in two lessons, 4-10 and 6-6.*

With respect to 1.NBT.A.1, the reviewer acknowledges but discounts the Number of the Day Routine, which provides daily practice with numbers over 100 starting early in the second semester. Standard 1.NBTA.1 is addressed 174 times in the program and to claim inadequate coverage is incorrect.

The reviewer's claim about 1.OA.A.2 is also incorrect. Standard 1.OA.A.2 is covered in one routine, the focus portion of five lessons, the practice portion of seven lessons, and in Math Boxes or Home Links in 11 further lessons.

Everyday Mathematics 4 provides extensive instruction for building procedural skill and fluency in almost every lesson. To claim otherwise is misleading.

Arbitrary and Obtuse Criteria and Metrics

Conflicts between the criteria in the EdReports Evidence Guides and reviewers' comments abound in all grades.

Issue: Faulty Interpretation of Support for Standards for Mathematical Practice Development

EdReports claims that all grades of *Everyday Mathematics 4* fail to teach the full meaning of the mathematical practices (Indicator 2f) because various opportunities fall short of that full meaning.

But the Evidence Guide for Gateway 2 states, "Every instance of an MP being marked does not necessarily have to encompass the full meaning of an MP, but taken together there should be evidence that the materials carefully attend to the full meaning of each practice standard." So citing individual cases that supposedly fail to teach the full meaning of a practice is not enough. The reviewers have failed to follow the Evidence Guide.

The *Everyday Mathematics 4* approach to the MPs is in line with what the Common Core and the Publishers' Criteria require. The curriculum breaks down the complex skills required by the SMPs down into constituent parts -- the Goals for Mathematical Practice -- and carefully builds understanding of the full standard throughout the year. In fact, *Everyday Mathematics 4* as a whole attends very well to the full meaning of the practice standards.

General Errors and Inaccuracies

In the roughly two weeks we were given to review the report prior to its publication, we reported many errors to EdReports, some of which were corrected. The number of errors, however, is so large as to call into question the overall integrity of the process and the report. And many problems still remain.

For example, in Grade K, Indicator 1d, the reviewer misunderstood the pacing for kindergarten and miscounted the number of instructional days. Open Response and Reengagement lessons are designed to be delivered over two days. The curriculum expects that each unit includes five additional days for additional practice, differentiation, and assessment, including Beginning-of-Year, Mid-Year, and End-of-Year benchmark assessments. The total number of instructional days is 170, with 125 days for instructional lessons and 45 days for practice, instruction, differentiation, and assessment.

Though we alerted EdReports to this mistake, the score remained unchanged.