

## Math Instruction for the New Era

How one Oregon district took the plunge with blended learning and hasn't looked back



“We would remind people that the kids weren't any less smart.”

—Linda Seeberg and Dr. Chris Morton

The measures had just become more rigorous.

It wasn't a unique challenge facing Linda Seeberg and Dr. Chris Morton, two Redmond School District administrators who found themselves at a crossroads in the years following Oregon's adoption of the Common Core.

But the district's falling state test scores rankled just the same.

Redmond itself is situated at a crossroads of sorts. Asked to describe the area, Seeberg, Executive Director of Academic Programs, says: “The Cascade Mountains split our state. On the eastern side, it's considered high desert, whereas the western side is more populated and a lot rainier. We're right in that transition.”

Communities with names like Eagle Crest, Alfalfa, and Crooked River Ranch send their children to Redmond schools, where Seeberg has held roles from teacher to principal to administrator over a 30-year career.

Morton, Director of School Improvement, heeded a call to education after volunteering at the local community college. He and Seeberg, she as principal and he as teacher, helped to open Tom McCall Elementary in Redmond in 2006.

In 2015, it fell to Seeberg and Morton to guide staff and students on a journey to benefit everyone invested in the study of math for Grades K–5. The catalyst wasn't unique, but Redmond's brand of commitment to change and follow-through would be.



Redmond, Oregon

Metro Location: **Town**

K–5 Students: **3,300**

Elementary Schools: **8**

Title I: **63%**

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First grade teacher Jodi Husband volunteered to serve on the adoption team.

## Key Criteria for a New Curriculum

“Before Common Core, you typically saw more of what I would call ‘big-box’ curriculum,” says Seeberg. Big-box curriculum tended to de-emphasize cognitive rigor and student engagement, champion teacher-led learning, and sidestep authentic problem solving and productive struggle.



“After Common Core, it was a new era,” she continues. “It was unfamiliar. A little bit uncomfortable and a little bit exciting. We weren’t in a traditional place anymore.”

Seeberg and Morton invited an elementary instructional coach and 16 teacher volunteers to join them in exploring and selecting a new core math resource during the 2015–2016 school year.



Redmond would look to the new curriculum to do the following:

- **Reverse the anticipated decline in state test scores that followed Common Core.** As Morton often reminded colleagues, “The kids aren’t getting any less smart.” The measures were simply more rigorous, and the district needed to adapt.
- **Balance out a “disequilibrium” created by the gap between new standards and old curriculum.** To tide them over until the formal adoption window opened, Redmond had adopted a widely used supplementary resource as a stopgap. It was better aligned to the new standards but lacked supports, and the burden it placed on teachers caused a shock to the system. Seeberg likens it to boot camp: “The interim math resource was so dramatically different, it presented significant challenges for teachers.” More favorably, it left Redmond educators primed for change and much clearer about what they did and didn’t want in the new core resource.
- **Fulfill the needs articulated by 130 fellow teachers** captured in a districtwide survey. Asked what they wanted in a new curriculum, teachers included ease of use, student-friendly and engaging content, plentiful supports for differentiation, and a technology component in their requests.
- **Help extend their existing data culture to math.** Morton and Seeberg had worked to establish a vibrant, purposeful data culture for reading instruction. As such, staff were at ease speaking the language of data and growth and had begun pushing for similar screening, intervention, and personalization tools in math. “This need became a strong theme in our adoption process,” says Seeberg.

With a clear mandate set forth by the items above, the adoption team began its search by perusing the list of programs approved by the Oregon Department of Education’s Instructional Materials Evaluation Process.

They also visited the state’s regional caravan—a “petting zoo for instruction materials,” jokes Seeberg—where one Redmond group learned about a core resource that looked decidedly different from what anyone had seen before. They brought *Ready Mathematics* back to the group and met with some resistance.

As of 2018, *Ready Mathematics* and *i-Ready* were still the only programs to receive a perfect score—all 66 out of 66 points—across all K–8 grade levels from the Oregon Department of Education.

The programs were also rated as having ‘Exemplary’ alignment to the Common Core with regard to Mathematical Content and Mathematical Practices.

“I think we were looking with ‘old eyes,’ right?” Seeberg reminds Morton, copping to evaluating the materials based on what Redmond had used in the past. But the distinctive program’s advocates—all teachers—stood firm, insisting that the materials fulfilled the team’s requirements and prevailing on colleagues to join them in further exploration.

“They are the ones who really drove the shift in conversation,” remembers Morton.

“And I’m grateful they did that,” adds Seeberg.

## Cutting the Search Short

Once the team had narrowed its choices to two, according to Seeberg, something unique happened: “We got to a point where our team literally looked at us and said, ‘One curriculum is standing out here, and we’re almost not interested in spending more time looking at any others.’”

They took an impromptu straw poll and discovered that 17 out of 19 members saw *Ready* and its technology component, *i-Ready*, as the number one choice despite the changes they would bring:

- **Redmond had never had a core math resource with an integrated technology component** like the adaptive Diagnostic for Mathematics and personalized online lesson pathways in *i-Ready*.
- **Redmond was not one-to-one for Grades K–5.** They had fewer devices than students, so their Chromebook™ carts moved from classroom to classroom to give everyone a turn.
- Emboldened by the new era prompted by the advent of Common Core, the district announced its decision to implement blended learning with the adoption of *Ready Mathematics* and *i-Ready* for all students in Grades K–5.
- Before school let out, all Redmond educators attended a live introductory session, where they were given materials to reflect on over the summer.



Chromebook™ is a distinctive brand feature of Google, Inc.

## Modernizing Teaching Methods in Mathematics

As the following school year began, Curriculum Associates' Professional Development providers and the district coaches walked teachers through the approach to teaching math that had inspired the adoption team.

### With *Ready* . . .

“ **This has been a big change for me.** I really needed to slow down and let kids have time to think, time to talk, time to process, and then time to share out as a whole class. I've learned to expect a different product coming out of the end of the lesson. Instead of finishing four worksheets, we go deeper into a few problems.

—**Second Grade Teacher**  
Terrebonne Community School ”

- **Students do most of the talking.** In *Ready's* Think–Share–Compare routine, teachers step back and put students' conversations and contributions at the heart of instruction. After establishing the meaning of the problem, students explore multiple ways to represent and approach the problem independently (*Think*), critique their strategies with partners (*Share*), and eventually make connections between representations (*Compare*).

“ I can easily pull the Tools for Instruction in the [Teacher] Toolbox to work on building individual skills. Everyone having access to all grade levels is unique to any other core program we have worked with!

—**Special Education Teacher**  
Sage Elementary ”

- **Lesson pacing slows dramatically to encourage focus.** Most *Ready* lessons span a week—five class sessions—to allow comprehension to take root.

- **Problem solving is paused while everyone examines the problem.** From early elementary to middle school grades, topics are often introduced using real-world problems. To aid understanding, students take part in multiple reads and contribute multiple answers to questions like, “What are we trying to find out?” and “What information is most important?”

“ **We know that there is immense value in pairing students,** especially when you've strategically chosen these partners. My 'smiley face' and 'star' partners sit in designated rows on the carpet. Smileys often have a good grounding in the domain, while stars need more support.

—**Kindergarten Teacher**  
Redmond Early Learning Center ”

- **Classrooms study and commit to the habits of authentic discourse,** such as making eye contact, taking turns to speak, being a good listener, formulating thoughtful questions, learning from mistakes, and agreeing and disagreeing respectfully. In the beginning, teachers scaffolded the path to discussion, using lesson vocabulary, Discourse Cards, or sentence starters to jumpstart kids' thinking.



At Sakamoto Elementary, teachers graph each week's average lesson pass rate. The data appears on a bulletin board in the hallway.

- **Students think beyond getting the right answer.** The challenge to identify and discuss multiple representations is inherent to *Ready*, where lessons never stop at finding just one strategy or solution.
- **Teachers are equipped with resources to support differentiation.** From the Teacher Resource Book to the online Teacher Toolbox to students' Practice and Problem Solving books, *Ready* provides a wide range of resources to challenge kids at every level.

“ We establish from the beginning that having a ‘stuck point’ is a celebration because it helps our brains grow.  
 —**First Grade Teacher**  
 Vern Patrick Elementary School ”

“ **I have them divide their whiteboards in half** and then I say, ‘Show me at least two strategies that you could use.’  
 —**Fifth Grade Teacher**  
 Vern Patrick Elementary School ”

“ **Ready provides games that are leveled, plus hands-on center work and problem-solving practice** to help me differentiate as we progress through each lesson.  
 —**Fifth Grade Teacher**  
 Lynch Elementary ”

“ The idea that all week we’re working on teen numbers, or all week we’re counting to 100 by tens, that allows the teacher to really focus on everything she’s doing. It also gives the rest of us, from principal to custodian to counselor, a chance to take part in and wrap around that lesson.  
 —**Principal**  
 Redmond Early Learning Center ”

“ **Full conversations do not come immediately or naturally.** When the school year started, there were a lot of fill-in-the-blank sentences. I would give the sentence, and they would turn to their partner and just give one word or a short phrase.  
 —**Second Grade Teacher**  
 Terrebonne Community School ”

“ **One great part of this time is that I can glean misunderstandings.** If a student is off-base in what he thinks the problem is about, then I can address that before we have gotten too far.  
 —**Second Grade Teacher**  
 Terrebonne Community School ”

Redmond had begun adapting instructional practices to embrace the new era, and in short order. While it was a tremendous undertaking, the intention was to make things easier in the long run.

"I give my teachers credit for jumping in with both feet right off the bat," says one principal. "This has really simplified the process of teaching math. I think confidence is up because they don't feel like they're delivering a four- or five-page sermon every day."

And yet, the books and teaching methods weren't all that was new. Enter *i-Ready*.



Fifth grade partners discuss finding the volume of a box.

## Taking the First Diagnostic

As they settled into new routines during whole and small group instruction, students used Redmond's shared Chromebooks for the first of three adaptive Diagnostics in *i-Ready*. If the program detected a student rushed through, the student took it again.

Upon completion of *i-Ready Diagnostic*, all students receive:

- **An overall scale score**—a number between 100–800 to indicate overall proficiency in the skills and standards tied to their particular grade
- **A scale score for each of four math domains** to indicate specific skill deficits
- **An indication of whether they are performing on, below, or above grade level** (and for those on level, a placement of Early, Mid, or Late in the year)
- **A growth target**—the number of points to try and add to their overall scale score by end of year
- **A queue of online lessons and quizzes created just for them**, based on their individual Diagnostic results

Launching their first online lessons, Redmond students chose their *i-Ready* study buddies and got acquainted with the animated characters while teachers eased into the program's most essential reports.

“First, we looked at administering the Diagnostic. Then in October we turned to data analysis, picking out the reports we thought would be most useful. We walked teachers through every step and then continued to return to buildings to check in and answer questions.

—Stephanie Wilcox  
Instructional Coach

”

Instructional coaches Stephanie Wilcox and Kelly Hicks played an essential part in supporting everyone on *i-Ready* while collaborating with Curriculum Associates' service staff to pace the implementation effectively.

"The data in *i-Ready* is amazing, but it can be overwhelming at first," explains Wilcox. "So we took it in parts."



**“During *i-Ready*, I’m circulating,” says fourth grade teacher Tracie Ronhaar.**

## Teachers’ Reactions to Personalized Instruction

In *i-Ready*, Personalized Instruction consists of interactive lessons, practice activities, and quizzes. Students have two chances to pass each Lesson Quiz. Redmond’s districtwide goal was for each student to log 45 minutes of recorded Time-on-Task—the program doesn’t count the time a student is idle—in *i-Ready* every week.

Redmond teachers assumed an active role in students’ Personalized Instruction, and the kids’ engagement increased over time.

“We have a goal of 25 minutes by Wednesday and 45 minutes by Friday,” says a first grade teacher who uses individual conferencing to review *i-Ready* growth goals and placements with students. “They are more aware and motivated to succeed.”

In fourth grade, teachers saw an opportunity for real-world application when they began a tradition of students graphing average pass rates each week. As they work through online lessons, another fourth grade class must show their work in an *i-Ready* notebook, which their teacher quickly reviews and notates after each session.

Teachers’ engagement with *i-Ready* impressed upon students that it was to be embedded in day-to-day classroom routines and expectations:

- **“During *i-Ready*, I’m circulating, I’m looking over their shoulder, I’m checking what domain they’re on.** I’m noticing whether the work on their whiteboard matches what is happening onscreen. If it doesn’t, we go through it together right then.”  
—Tracie Ronhaar, Terrebonne Community School
- **“In the beginning, I had several students failing the lessons.** I found that they didn’t really know how to use scratch paper. They didn’t know how to listen, watch, and engage. So, we did a couple lessons as a class that fit with what we were doing in *Ready*: ‘What should we do on this screen? What did the character say that was important?’ And if a student failed a lesson: ‘Well, what can you do differently next time?’”  
—Fifth Grade Teacher, Vern Patrick Elementary School
- **“*i-Ready* is this crucial piece of students getting what they need.** It’s a very important extension of me, is how I see it. Kids are getting instruction, they’re being assessed, and they’re given feedback. We’re taking the ceiling off, and we’re allowing students to demonstrate mastery and move at their own pace, which I am so passionate about.”  
—Kindergarten Teacher, Redmond Early Learning Center

## Sharing Devices

It took considerable juggling, but Redmond implemented *i-Ready Diagnostic* and *i-Ready Personalized Instruction* on shared devices. At one elementary school, there were four Chromebook carts for five grade levels and 15 classrooms. Schedules governed where each cart would be on an hour-by-hour basis. In one fourth grade classroom, for example, the carts visited for 30 minutes on Mondays, Wednesdays, and Thursdays.

“Scheduling our devices was one of the biggest struggles that we faced at the beginning of the year,” says Jennifer Hesse, Principal at Vern Patrick Elementary.

To ease the pressure around the shortage, Hesse added *i-Ready* to the Specials rotation, ensuring teachers would have an additional dedicated block for *i-Ready*. Students were assigned numbers that were affixed to the devices so they could be distributed and put to use quickly.

Several teachers also offered *i-Ready* as an approved “when done” activity, so students could do their lessons after they’d completed assigned work, provided devices were available. One principal says *i-Ready* became her students’ number one choice in this circumstance.

## Rearranging 90-Minute Lesson Blocks

As they began to explore the benefits of using *Ready* and *i-Ready* together, Redmond found they had to rethink their mandatory 90-minute math blocks.

Seeberg explains, “In the past, we saw the block as consisting of two distinct components: 60 minutes of core followed by 30 minutes of personalized instruction. So, at first, we applied this thinking to the new program.” Teachers tried teaching a 60-minute *Ready* lesson followed by 30 minutes of centers, but problems arose with pacing appropriately to incorporate *i-Ready* and keep to the schedule.



Kindergarteners follow their individualized lesson paths in *i-Ready*.

### Venues for the Review of *i-Ready* Data during Year 1:

- *i-Ready* district performance overview meetings (twice per year with Curriculum Associates)
- Professional Learning Community (PLC) meetings
- Administration check-ins with principals (four times per year)
- Response to Intervention (RTI) meetings
- Usage and pass rate check-ins with teachers
- Coaching sessions on how to conduct a student data chat

So the district invited educators to think more flexibly about the 90-minute block, thereby working toward a tighter integration of text-based and data-driven instruction.

As an example, one grade level found the following to be a perfect blend: 20 minutes of *i-Ready* for the whole class followed by a 45-minute *Ready* lesson, and then 25 minutes of centers, which comprised small group instruction, independent work, partner work, and one-on-one instruction.

## What Data Culture Can Do

In November 2017, Seeberg and Morton gave a symposium talk for fellow educators on Redmond’s first year with *i-Ready* and *Ready*. Sharing out some of Redmond’s advice for success, they described the importance of using purposeful data and building a data culture.

The ultimate goals of all the attention on data were simple:

- **Support principals in taking informed action.** “*i-Ready* has made my job quite a bit easier from the standpoint of having concrete information on a regular basis for math,” says one principal. “Not only do we have student data, but we also have specific information to inform how to make changes to student programming.”
- **Support teachers in taking informed action.** “In the past, I didn’t really have an opportunity to get a baseline of where students were individually,” says one fourth grade teacher. “With *i-Ready*, I get instant feedback. I continue with my whole class lessons and am giving everybody the opportunity to learn on-level skills, but I am also able to see which kids need that special intervention.”

“ From December 6–21, my class passed 146 lessons with an 87 percent pass rate. They won the hot chocolate party! It amazes me how driven they now are to pass their lessons, even when there is no active competition happening.

—**First Grade Teacher**  
M.A. Lynch Elementary ”

“ We add marbles to a jar for passed lessons. When we fill the jar, we get a class reward.

—**Second Grade Teacher**  
Sage Elementary ”

“ We celebrate passed lessons with a ding of a bell.

—**Fifth Grade Teacher**  
Terrebonne Community School ”

“ If a student passes with 100 percent, she writes her name on a green sticky note and puts it on the board. We love seeing our progress! If a student does not pass, she discreetly places a sticky note on my desk so I can help.

—**Third Grade Teacher**  
Sage Elementary ”

Teachers took it upon themselves to implement student recognition and growth celebrations, and the impact was a surge in student ownership.

## Coach Wilcox’s District Newsletter Celebrates Growth



Stephanie Wilcox

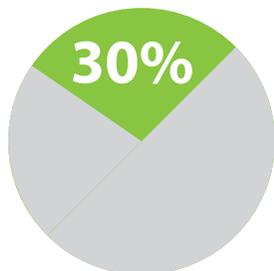
To appreciate the extent of Redmond’s engaged, all-in data culture, one can look to math coach Stephanie Wilcox’s upbeat district newsletters for spring 2018. “The CIA Times” chronicles news about Curriculum, Instruction, and Assessment around campus with transparency and enthusiasm.

Following the second Diagnostic in January, Wilcox penned a feature called “Rockin’ the Growth in Math,” in which she compiled three growth-related data points for every Grades K–5 classroom in the district and published results for some of the standouts. (Teacher and student names did not appear.)

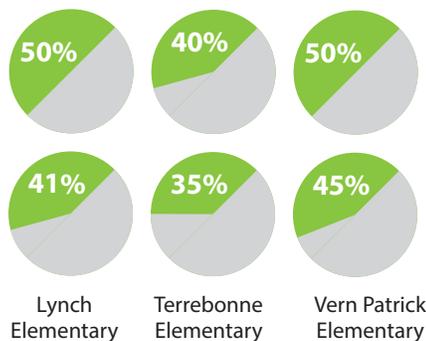
Note that growth targets in *i-Ready* indicate an expectation of where each student will be by the end-of-year Diagnostic. That is, it would be typical to reach 100 percent of one’s goal at the end of the school year. Doing so by January, therefore, is a notable achievement indicating a student is exceeding expectations.

### Percentage of Students Who Reached Their End-of-Year *i-Ready* Growth Target by January 2018

Grade 5 Overall



Top Classrooms



All grades were represented in the newsletter with data like that shown here, along with a list of strategies that teachers had raised as levers for encouraging dramatic growth in *i-Ready*.

“People, we are moving the dial and making a difference!” Wilcox declares to close the newsletter, appending the hashtags #datadatadata and #movinonup.

## Redmond Teachers Facilitate Blended Learning

A final sign of progress is the increasing sophistication with which Redmond educators are using *i-Ready* data to inform and improve instruction, and in particular, differentiation.

In Year 2, Redmond made it a goal to continue identifying just what blended learning looks like and to increase its practice.

Here's what they found:

- ***i-Ready* data can inform whole class instruction.** Teachers are looking at where kids are with *i-Ready* lessons and what they're struggling with to inform whole class instruction. One first grade teacher noticed that many of her kids had struggled with the *i-Ready* lesson on odds and evens, so she started asking the class each day, "Is today's date odd or even?"
- ***i-Ready* data can inform small group formation.** Teachers are consulting *i-Ready* student profiles when grouping students for small group instruction and center time. Teachers also note that the makeup of small groups is fluid, and *i-Ready* helps them know when and how to re-form them.



Teacher Tracie Ronhaar gives a mini-lesson on fractions during *i-Ready*.

- ***i-Ready* can be used as a differentiated station within a rotation.** In Redmond's fifth grades, students at the *i-Ready* station work their lessons using a tracking sheet to note down their progress.

“ The data bear this out: Redmond fifth graders who received such intervention achieved an average of 156 percent of their *i-Ready* growth target at the end of the year. ”

- ***i-Ready* data can inform what happens at the teacher's table.** Direct instruction time with the teacher is often tailored to the needs of the small group or individual using *i-Ready* data. As one kindergarten teacher says, "Based on what I am seeing in the Diagnostic, I am able to really pinpoint what I'm working on with students. I ask myself, 'How can I make my teacher station more meaningful, based on what this group is showing me?'"
- ***i-Ready* can strengthen intervention practices.** Teachers regularly personalize intervention based on *i-Ready* data, and one fifth grade team's extensive PLC work in this area prompted a feature in the district newsletter: "Essentially everything each student does in math intervention is now designed very specifically for that individual student," says one teacher. "It takes quite a bit of time to set up and prep for, but it is working!"
- ***i-Ready* can prompt a personalized mini-lesson.** When students do not pass an *i-Ready* Lesson Quiz, they get one more chance before the domain is shut off and flagged. Teachers often intervene before the second try to do an impromptu mini-lesson to increase the likelihood a student will pass.

## Ready for Some Results?

After two years, a rich data culture for math had taken root in Redmond. Working together, teachers and leaders had raised awareness and rallied around concrete strategies for effective blended instruction.

Daily math lessons featured increased focus, rigor, and discourse, and teaching methods had been modernized amidst tight alignment to the new standards.



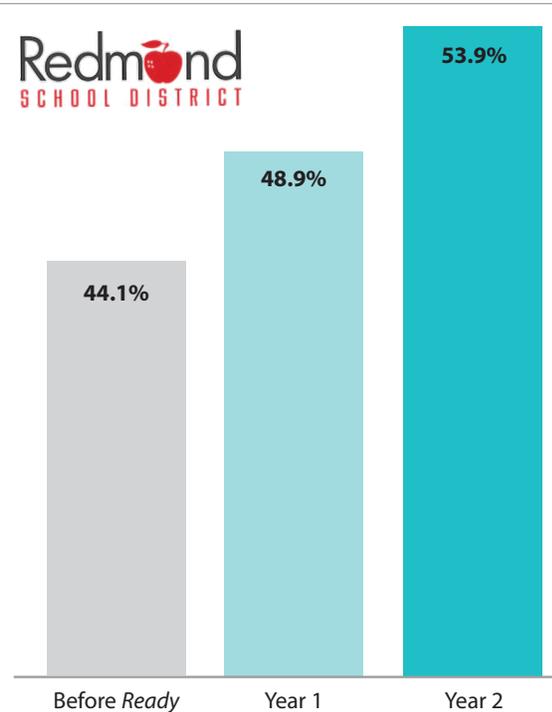
For positive trends, Seeberg and Morton point to these data points from *i-Ready*:

- **Redmond students' year-over-year performance is improving.** *i-Ready Diagnostic* designates students who place Mid On Grade Level or higher as proficient. Relative to their district performance and *i-Ready* national averages, all Redmond Grades K–5 posted gains from spring 2017 to spring 2018. Grade 2, for example, rose 10 percentage points to 52 percent proficient. Grade 5, at 47 percent proficient, went from underperforming *i-Ready*'s national norms to outperforming them by seven percentage points.
- **The lowest performing students are making up ground.** In 2017–2018, Grades 1–5 saw a reduction of at least 11 percentage points in Tier III students—those who *i-Ready Diagnostic* had placed more than one grade level behind. The proportion of students who tested as Tier III in Grades 2 and 3 went from 24% to 3% and 29% to 7%, respectively, from fall to spring.

And the state test scores? They're going up . . .

- **After one year, Redmond's SBAC scores beat the averages for the state of Oregon (43.6%) and districts with similar demographics (42%), which they had not done since the test's inception.**
- **After two years, the percentage of students in Grades 3–5 who achieved "meets or exceeds standards" on the SBAC had risen just shy of 10 percentage points.**
- **Redmond's median growth percentile as measured by the SBAC has increased from 45% to 60% since adopting *Ready*.**

**Percentage of Students with Passing SBAC Math Scores Grades 3–5**



## Ready Mathematics Is Recognized, and Redmond Looks Ahead



Redmond School District had risen to new heights to meet the new era of more rigorous math standards. As everyone was working hard at implementation, there came some heartening news to help sustain their efforts.

In 2017, *Ready Mathematics* for Grades K–5 received a highly favorable review from EdReports.org, an independent nonprofit that evaluates instructional materials across the gateways of Focus & Coherence, Rigor & Mathematical Practices, and Usability.

When Grades 6–8 were reviewed in 2018, *Ready* took its place amongst the top-rated K–8 programs in the country. It received “all green” ratings to indicate it fully met expectations across all grades and gateways, while most programs received some yellow or red ratings.

“From an implementation science standpoint, it had everything we were looking for,” affirms Morton. “We were thrilled when we selected it, and we’re still thrilled.”

Seeberg echoes that sentiment, summarizing Redmond’s ultimate goal: “In terms of the benefits I hope students will take away from *Ready* and *i-Ready*, I hope they will feel capable and enthusiastic about exploring math, that they receive the supports they need along the way, and their parents see them being actively supported.”

She continues, “Mostly, we hope they feel excited about exploring things they don’t understand and realize they have the tools to do so. It’s really about the exploration and discovery of numbers and one’s relationships with other learners. That’s the broader context of math in real life.”



### Does your math program challenge students at every level?

Visit [CurriculumAssociates.com/BlendedMath](https://CurriculumAssociates.com/BlendedMath) to explore the power of *Ready Mathematics* and *i-Ready* to reach every student and empower student growth.

