ALL HANDS ON DECK
Serving Students During the Pandemic
No one saw this coming.

“This is a shining moment for the organization. Never before has every department had a singular goal that involved all of us. This is a great moment for Great Minds.”

Jill Diniz, chief academic officer for math, and her team were focused on gearing up for a 20 percent increase in new Eureka Math® adoptions for next school year, including an adoption by the Los Angeles Unified School District.

Rachel Stack, chief academic officer for humanities, and her colleagues were completing the Geodes® library, a collection of books for early readers. The team was preparing to support more than 150 new adoptions of the Wit & Wisdom® English language arts curriculum, from Massachusetts to Tennessee to Colorado.

Michael O’Hara, senior program manager for operations, was getting ready to launch a huge new warehouse in Las Vegas to distribute some of the 25 million books that Great Minds® ships each year.

Meg Goodner, national director of implementation services for PhD Science™, finished training 23 classroom teachers to deliver professional development this summer and then headed to visit her relatives in Baton Rouge for the annual St. Patrick’s Day parade. She wouldn’t get back to her Atlanta home for another four weeks.

As it did for the rest of the world, the coronavirus pandemic changed everything for these education professionals and their colleagues at Great Minds, which develops high-quality curricula and offers professional development in math (Eureka Math, PK–Grade 12), English language arts (Wit & Wisdom, K–Grade 8), and science (PhD Science, Levels 3–5) and provides books for early literacy (Geodes, K–Grade 2).

STAY CONNECTED & KEEP LEARNING ONLINE! WE MISS YOU!
In response to the pandemic, they and a major portion of the organization’s nearly 900-person staff, made up largely of educators who live around the country, quickly pivoted to produce Knowledge on the Go™, a series of free, online videos in math, English, and science.

“Given the crisis, I thought we should do whatever we could to come to the rescue, to do our best to try to help save the rest of the school year,” says Lynne Munson, who founded Great Minds more than a decade ago and continues to lead it. “Given that three-fourths of our staff have been teachers, we were in a perfect position to know the kinds of supports teachers would need.”

“It’s hard to replicate a school setting at home,” she says, “but all students need coherent instruction, rooted in developing knowledge on key topics and concepts that build upon one another.”

From Print to Video

As of spring 2020, Great Minds print curriculum materials were being used in all 50 states and by many large school districts, including Baltimore and Montgomery County in Maryland, Shelby County in Tennessee, Washington, DC, and the majority of communities in Louisiana. Previous video materials supplemented the teacher editions of the printed curriculum but were not central to Great Minds offerings. Until March.

Virtually overnight, Great Minds developed a robust and growing library of online instruction, so that students could keep learning to read, write, do math, and explore science after their schools shut down. As of June 4, when the last lesson was posted, some 1,315 video lessons had been produced and shared.

Some districts and schools linked to the video lessons from their own websites. Others broadcast them on television through public access channels or in partnership with local PBS stations; Baltimore City Public Schools, for example, sent packets home that connected to the videos being shown on its public access channels.

Students watched the videos by themselves, and then teachers used student or class meetings to discuss the lessons. Some students watched the videos independently to supplement their current distance learning or build additional content knowledge. In some cases, families viewed the lessons together.
The reaction from educators and parents has been overwhelmingly positive.

More than 90% of survey respondents would likely recommend the materials to their colleagues.

51% say “definitely”

Page views from 186 countries

From Brazil to Ghana

1,315 Lessons

1,363 Videos

568 Hours of content

Math

Science

English

Users’ major request: They want even more modules.

“It is like having your teacher teaching you in your home.”

“I trust that the instruction and content of the lessons are accessible, worthwhile, and high quality.”

“The curriculum has not lost any of the richness and depth moving online.”

“Kids report that it feels just like being in class!”

“I love that parents have the same access to the resources to help their children during this pandemic. Great Minds has made this new journey less chaotic.”
IMPACT

Many teachers are using the videotaped lessons to strengthen their own practice.

“We’re hearing that teachers are using them for self-study.”
—Jill Diniz, chief academic officer for math

“They’re seeing how lessons can be brought to life by great teachers. These lessons are not a script.”
—Jennifer Loftin, associate director of professional development for math

“Knowledge on the Go has been the backbone of our district instructional plans and resources shared with our students for ELA and math since the time of our closure.”
—Christy Wall, supervisor of teaching and learning, Sumner County Schools north of Nashville, Tennessee

“We are all-in with the Knowledge on the Go lessons through the remainder of this school year.”
—Colleen Stearns, director of ELA, IDEA, the high-performing public charter school network of 96 schools in Texas and Louisiana

“Wit & Wisdom made our pivot easier because the authors produced Knowledge on the Go videos: actual lesson videos delivered by teachers which I could incorporate as the asynchronous component. This was a godsend for the students who weren’t attending classes. Yet I’m using these Knowledge on the Go videos with all students, to great effect, and I see teachers across the country doing the same.”
—Kyair Butts, sixth grade teacher, Baltimore City Public Schools

WCNY in Syracuse, New York, is one of several PBS stations broadcasting lessons.

“This is a wonderful partnership, and I am so happy that we are able to provide this academic resource for our students and families.”
—Syracuse Superintendent Jaime Alicea

Baltimore City Public Schools is broadcasting lessons through its public access channels.

Friday
12:00pm
Mayor’s News Conference
1:00pm
Baltimore City Public Schools Remote Learning

11:30am-12:30pm Grade 3 ELA
1:00pm-2:00pm Grade 2 ELA
The work began as Munson was just starting a spring break vacation with her family in Colorado in early March. Before she left, she discussed with senior leaders the need to create virtual lessons as some school systems were beginning to shut down and others were discussing the possibility.

Her February 28 email read, in part:

David [Blair, Great Minds chief business operations officer] and I talked today about what might happen in the US if schools close b/c of the coronavirus. I don’t think we need to do anything yet, but it did occur to me that—should this happen on any significant scale—we might respond by standing up free virtual courses taught by our fellows. Any kid could tune in—even if they aren’t already being taught with our materials. Thoughts?

Once it became clear that schools were closing, the basic plan was in place a week later. On March 18, the first videos were posted on a new Great Minds microsite.

The work required much of the organization to shift gears. Some staff members put their current work on hold; others were free to help after the pandemic forced the cancellation of all regional professional development institutes this spring and disrupted planning for the typical thousands of in-person training sessions this summer. Because the lead teacher-writers were still working hard to complete all the lessons for the K–Grade 2 PhD Science pilots in Fall 2020, Pam Goodner, chief academic officer for science, turned to her implementation support teams. “Six of them met with me Friday, March 13, and they said, ‘Pam, you look worried. Don’t worry. We got this,’” Goodner recalls.
For all content areas, a central challenge was to streamline what were initially 60- or 90-minute classroom lessons into 30-minute online blocks, which was especially important for the younger students with their shorter attention spans. In math, longer lessons were split into three separate videos. All teams experimented with how to make the lessons more engaging, given that the Great Minds teachers would not actually be interacting with the students (although the students’ local teachers would be in many cases).

Engaging Students

“We were always thinking of different ways to engage. How can we ask children questions and respond as if we heard them?” recalls Christine Meidl, senior manager for Eureka Math implementation success. “We’d prompt them to pause the lesson and talk to us even if we couldn’t hear them,” says Andrea Minich, national director of implementation success for humanities. “Then the teachers would reply, ‘I think I heard you say …’ or ‘What I’ve heard from other students is …’.” Science teachers repeatedly prompted students with questions. “What did you notice? What did you wonder? Why do you think this happened and not that? What evidence do you have?” And teachers regularly encouraged students to enter their observations in their Science Logbooks.

In science, the online conversion was a bit more complex, given that so much of the PhD Science curriculum involves student conversations and hands-on investigations. The team started by videotaping teachers working with a handful of students in a Baton Rouge studio. But when the city shut down, they set up three virtual grade-level teams, each with three teachers. Typically one teacher organized the lesson and prepared the slide deck and related materials. A second conducted and recorded the student investigations. A third delivered the online instruction. Several summer associates—classroom teachers who had recently been trained to conduct in-person workshops during the summer—joined the team; all of them learned together how to deliver virtual instruction.

All the content teams agreed early on about the importance of authenticity, of having the teachers introduce themselves and present lessons in ways that could establish a bond with students they had never met. Teachers were given a lot of latitude. “We have so many great teachers here. We wanted to tap into their existing expertise and ‘teacher gut,’” says Sarah Henchey, senior managing editor for humanities. “Each teacher is unique and so many are creative. We wanted students to get their personality.”
Lori Sappington Teaches About a Previous Plague

Talk about a coincidence.

The theme of *Wit & Wisdom*’s fourth module in Grade 7 is Fever. So naturally, teacher Lori Sappington’s online instruction this spring focused on two books that couldn’t be more relevant: *Fever 1793* and *The American Plague*, a novel and a nonfiction work about a yellow fever epidemic in the early days of the republic.

Sappington is an experienced teacher, who has taught Grade 2 through high school, served as a literacy coach in Baltimore City schools, and now works for Great Minds as the Implementation Success Team’s regional director for the northeast.

Before *Knowledge on the Go*, she was a complete video novice. “I’m a total tech illiterate. I’d never even used iMovie before. Now I was responsible for creating instructional videos. I was basically the writer, producer, director, content expert, actress, hairdresser, makeup artist, and videographer—all in one,” she says.

Besides mastering unfamiliar technology, she had to condense the content without compromising its rigor and interact with students she could not see. “It was really important to affirm the responses of students who were invisible,” she says. “After having students think or write about a text, we’d use techniques like saying, ‘If you were thinking XXXX, yes!’”

Sappington says she and her colleagues learned some valuable lessons from *Knowledge on the Go* that will be useful as the company launches *Great Minds™ in Sync*, which will allow educators to toggle seamlessly from classroom instruction to distance learning without sacrificing coherent knowledge building.

*Knowledge on the Go* was like a fire drill, and now the team can plan lessons for the coming school year more deliberately, Sappington says. Reflecting user feedback, the next videos will be shorter. The instructional language will be more consistent from grade to grade. But delivering high-quality content will remain the company’s overarching priority.
Furthermore, a spirit of continuous improvement permeated the work. The math team asked teachers from the implementation support teams to film sample lessons. “We just started doing them, watching each other, discussing what we liked and did not like,” says Loftin. “We learned by doing.”

Providing access to materials was a major challenge in all subjects. The *Eureka Math* team pointed to the online availability of the manipulatives. And they urged parents and students to be inventive: Use game pieces as blocks; instead of square tiles, use crackers. “We had one very funny moment when one of our teachers asked, ‘What do I do when my daughter eats all my manipulatives?’” recalls Loftin.

Because texts are central to *Wit & Wisdom*’s content-rich English language arts curriculum, the lessons linked to online book borrowing sites, free audiobook downloads, and downloadable PDFs. Even better for students was having teachers read key texts out loud as part of the recordings.

“We’d prompt them to pause the lesson and talk to us even if we couldn’t hear them. Then the teachers would reply, ‘I think I heard you say’ or ‘What I’ve heard from other students is.’”

Andrea Minich
*National director of implementation success content for humanities*
Meanwhile, the operations and IT teams had to make sure the dozens of staff educators who were delivering lessons—all from the safety of their own homes—had the appropriate computers and recording equipment: powerful laptops, lavalier microphones, and internet connections that could handle very large files. They had to teach them how to use the two video recording and editing platforms.

Great Minds had no full-time video or photography specialists on staff; instead, it relied on consultants. Michael O’Hara, the distribution expert, had never edited videos before; in a pinch, he was recruited to oversee all the final video editing for Knowledge on the Go. One of the consultants, Kurt Dutra, who joined Great Minds full time in June as associate director for digital media, helped the team understand file formats, video recording equipment, and ideal teacher settings for recording, and he worked with O’Hara on editing.

“We had no budget, no expertise, no idea when exactly this would start or end, but I’d worked closely with these guys before and knew they could pull it off,” recalls their boss, David Blair, the chief business operations officer.

O’Hara brought on three other video editors, hustled out to the local computer store to buy them powerful new computers and video editing software, and drastically upgraded his home internet speed to 1 gigabyte. “I knew we were getting better at this because our status meetings kept getting shorter and shorter,” says O’Hara.

Overcoming Technical Challenges

The editors’ task was complicated by the need to make two versions of each videotaped lesson: one for online streaming and use by school districts’ public access television channels and a second for PBS stations around the country. PBS requirements were particularly precise; each video had to be reedited to exactly 25:41 minutes.

Common recording challenges included out-of-sync video and audio, noisy fans on teachers’ computers, poor lighting, or distracting backgrounds. “We wanted to balance making very authentic versus Hollywood productions,” says Blair. “We didn’t want the videos to look too polished … or too rough.”

Troubleshooting help came from an unexpected source: Dutra’s 18-year-old son, Justus, who has a national reputation as the go-to photographer for major hip-hop performers. In fact, one night he had to put O’Hara on extended hold while taking a phone call from rapper Playboi Carti, who was releasing an album the next day. “We never could stump Justus,” O’Hara recalls. “He could solve anything.”
Angel Rodrigue Transforms Her Garage into a South Pacific Island

Angel Rodrigue spent much of April and May turning her Lafayette, Louisiana, garage into a movie set—recreating the South Pacific island where aviator Amelia Earhart’s plane disappeared in 1937 and has never been found. “I love this curriculum so much. It makes science so real,” says the Grade 4 science teacher who has been using PhD Science with her students for two years. For the past two summers, she’s served as a Great Minds Summer Associate, training teachers across the country in the curriculum.

When the pandemic hit, Rodrigue taught the first six lessons of Grade 4’s Module 4 to three students in a Baton Rouge film studio. But when everyone was required to shelter in place, she became part of a three-person team that filmed the remaining lessons (Rodrigue handled the investigations, Catherine Lee prepared the lessons, and Victoria Soileau delivered the on-camera instruction).

While Earhart was the heroine of the instruction, the focus of Module 4 is the properties of light. Which meant that Rodrigue had to improvise how to create midnight, sunrise, and other times of day.

“I shot everything several times. I wanted my part to be as good as the curriculum I was teaching from.”

She moved and adjusted lamps, put garbage bags on her garage windows, and used other techniques to replicate the conditions. She became an expert on light and camera angles. “There was a lot of trial and error,” she says, noting that 30 seconds of videotaping could take her up to four hours to produce.

“I shot everything several times. I wanted my part to be as good as the curriculum I was teaching from,” she says. “I’m absolutely in love with this curriculum,” says the 27-year teaching veteran. “I was so humbled to be asked to participate.”
Creating a New Website

While Blair’s team was editing the videos, Andrea Toman, the company’s Hubspot and web content administrator, was working with the IT department to stand up a new microsite overnight. She recalls that Wednesday, March 11, was the first she’d heard of senior management’s idea to launch a video series to provide learning resources to students stranded at home. By Thursday, she’d received confirmation that the company would post 25 new videos a day (13 for Eureka Math, Grades K–12; 9 for Wit & Wisdom, Grades K–8; and 3 for PhD Science, Grades 3–5). The microsite was set to launch by noon, Wednesday, March 18.

Step one for Toman, working from her home in Bismarck, North Dakota, was to create a basic structure and site map. “We wanted it to be so simple that a second grader could figure it out,” she says. “That first week, we all were probably working 14- or 15-hour days through the weekend,” Toman recalls. It paid off. Great Minds launched the new microsite at 9 a.m. on March 18, three hours ahead of schedule.

“We wanted it [the web structure] to be so simple that a second grader could figure it out.”
Managing the Work

Monica Figa, senior IT project manager, got word of the project on Monday, March 16. Her role was to help coordinate the work across the organization with multiple project managers. A color-coded, dynamic project tracking platform (see image) allowed everyone to track the status of the hundreds of videos in real time—from initial recording through final posting to the website.

But many problems frustrated their careful planning. Teachers didn’t have the right equipment, adequate internet, or enough storage capacity. Coordinating complex processes invited confusion. Computer crashes forced multiple retakes. “The low point was the first two weeks. I felt as if everything that could go wrong did go wrong,” Figa recalls. “We just weren’t set up to do video production at this scale. But we learned quickly and got into a rhythm.”
The marketing team shifted from promoting the available curriculum print materials and professional development to creating a name and brand for the new online material and designing a consistent look and feel for all the video lessons—complete with an animated logo and music developed quickly by creative director Andy Azula.

Organic and paid social media campaigns on all the major platforms—Facebook, Twitter, LinkedIn, and Instagram—helped spread the word. Emails announced the availability of Knowledge on the Go to the tens of thousands of educators already using Great Minds curricula in their schools. Munson did about 40 satellite media interviews with television stations across the country, arriving at the studio before 6 on one morning—her birthday.

Team members also reached out to school districts’ public access channels and PBS stations across the country to make the streaming lessons available to the hundreds of thousands of students without broadband internet access at home. Large school districts such as Baltimore, Montgomery County (Maryland), and Washington, DC, broadcast the lessons on their public access channels. Led by WCNY in Syracuse, New York, PBS stations were showing or planning to show the videos as part of their weekday lineups; all PBS stations have access to the programs.
Dale Hammer Gets Creative to Teach Kindergarten from Afar

Until the pandemic struck, Dale Hammer had never spent much time teaching kindergarten. The former high school teacher and middle school assistant principal had spent all of this school year as a Eureka Math coach, working with K–3 teachers in five elementary schools in Durham, NC, who were learning the new math curriculum.

Everything changed when he was asked to partner with Lori Sponenburgh to co-teach the KOTG kindergarten modules. He handled the concept development part of the lessons, and she the fluency and application sections. He credits her and three or four other colleagues who provided daily feedback on his lessons (especially Andrea Thune) with strengthening his craft.

“We knew we had to be flexible. It was so important to give kids from across this country access to this content-rich instruction.”

That and a LOT of practice. Hammer estimates each 20-minute lesson took him about five hours to prepare, starting with the weekly planning sessions he and Sponenburgh held every Friday, through closely planning the lesson and extensive on-camera practice. “It was important to be very excited and well-rehearsed in hopes that I could connect with kindergarten students I couldn’t see,” he says. “I love teaching kindergarten now.”

Challenges included limited computer storage capacity for the large video files, and a video camera that sometimes froze mid-lesson. “We knew we had to be flexible. It was so important to give kids from across this country access to this content-rich instruction,” he says.

Knowing that many of his viewers would not have access to all the hands-on manipulatives that are so essential for young learners, Hammer, like many of his colleagues, had to be creative. Peanuts, gummies, and cereal took the place of linking cubes and two-sided counters, while pieces from board games also played a supporting role. Also playing a supporting role was his nearby beagle Scarlett who often snored in her sleep. “I was always closely monitoring the sound to make sure she wasn’t too loud.”
The Great Minds Advantage

“Content is king. First, the organization’s central focus on teaching compelling content is much more likely to keep students engaged than random skill-building worksheets, which were the default virtual solution for many school districts. Jared Myracle, former chief academic officer of Jackson–Madison County Schools in Tennessee, said it well: “Currently we’re in a distance-learning era, and I must say, knowledge-building curricula ‘travels well’; it’s a lot easier to help students study these knowledge-rich topics with parents than it would be to coach parents on ‘find the main idea.’”

“Can-do attitude. Second, agility and a can-do attitude are built into Great Minds’ DNA. After all, the organization won $14 million worth of contracts from New York State in 2012 to develop what became Eureka Math (originally EngageNY Math) without having written a math curriculum before. “We just assumed we could do it, even though it was all grades and a big stage,” recalls Munson.

“In times of crisis like this pandemic, you know what an organization is capable of,” Munson adds. “If we had sat around and focused on return on investment, we’d still be running the numbers. That’s not what a mission-driven organization does.”

Chief Marketing Officer Sydney Norton marvels at how quickly the organization came together to create what is essentially a brand-new product. “In less than a week, we had lessons out there, fulfilling our mission of helping students build knowledge,” she says.

“Teacher-driven. Third, teachers drive the work. Some 75 percent of Great Minds staff used to be classroom teachers; some of the company’s teaching fellows and summer associates still teach part time. They know what schools need. “Great Minds is a team of teachers,” says Stack, the humanities chief.

Fourth, staff members are used to collaborating virtually. Of those mentioned in this article, Munson and Norton are in Richmond; Pam Goodner, Loftin, and Rodrigue in Louisiana; Blair, O’Hara, Dutra, and Sappington outside Baltimore; Diniz in Florida; Stack in Kentucky; Meg Goodner in Atlanta; Minich in Indiana; Henchey and Hammer in North Carolina; Figa in Washington, DC; Toman in North Dakota. They had the experience of working from home. They knew how to manage complex, multistaff projects from afar. Using Zoom was routine.

To be sure, there were some missteps. Back in early March, senior leadership initially expressed doubts about the organization’s ability to pull off the project and suggested several alternatives. “I thought all the options were too indirect and too complicated,” Munson says. Some of the first math lessons included mistakes, sometimes the result of sloppy handwriting when showing a solution. The Virginia PBS network, after
expressing initial interest in airing the lessons, backed out because the state education agency said the lessons weren’t aligned with Virginia’s specific learning standards.

Overall, though, the effort was a major success. “We learned so much—mainly that we can best support teachers by shouldering some of the burden of delivering whole-class instruction, freeing teachers up to do what only teachers can do: providing one-on-one support to their students,” says Munson.

“This is a shining moment for the organization. Never before has every department had a singular goal that involved all of us,” says Diniz. “This is a great moment for Great Minds.”
The current round of videotaping ended June 4. Great Minds has committed to keeping all the lessons online, available for free, for schools and families to use during summer school.

In May, it announced Great Minds® in Sync, a new collection of coordinated digital resources and print lessons for fall learning that build on Knowledge on the Go.

“Great Minds rallied to create Knowledge on the Go lessons when the pandemic drove students from their classrooms,” says Munson. “We now know that effective distance learning draws on the same ingredients that are essential inside the classroom—setting and maintaining high expectations for all students and delivering on those expectations with coherent, knowledge-building instruction. Great Minds in Sync will help high-quality instruction to continue no matter the circumstances teachers face this fall.”

NOTE: This story was reported in May 2020 and published in June 2020.