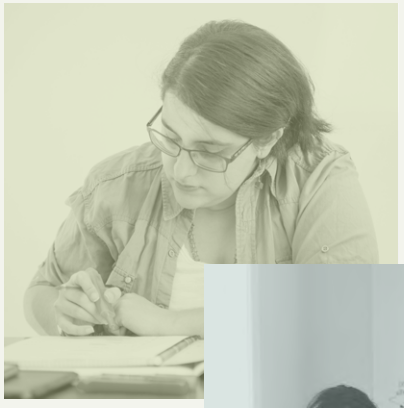
PhD SCIENCE®

Sustained Support From A Trusted Colleague



Great Minds® is the exclusive provider of professional development written and delivered by the creators of *PhD Science*®

GREAT MINDS™

every child is capable of greatness

Professional Learning from Great Minds

With the proper teacher support, high-quality instructional materials ensure knowledge-building opportunities for every student. That's why we have our teacher–writers craft all of our professional development and why we make sure educators with firsthand experience teaching the curriculum lead each session.

Our professional learning was designed to unlock every teacher's ability to help students thrive—because your greatness is their greatness.

> *The positive effects for students are amplified when strong curriculum is paired with strong professional learning: not only are students working with more rigorous instructional materials, but they also have a more skillful teacher to guide them.*
>
> — *THE ELEMENTS: TRANSFORMING TEACHING THROUGH CURRICULUM-BASED PROFESSIONAL LEARNING*

Approximately

75%

of our 1,200 employees are or have been teachers, so we know the importance of improving teacher practice.

Professional Development and Personalized Coaching

Our in-person and virtual professional development (PD) sessions include options for teachers, administrators, science coaches and coordinators, and other educators who support classroom instructors in improving their craft. Available online and in-person, these sessions ensure strong initial implementation as well as sustained success. Educators can participate in private PD with their school or district or through virtual open enrollment with other educators from across the country.

Through modeling, observation, and recommendations for customizing the curriculum, Great Minds coaches help teachers improve implementation and help leaders develop effective ways to support, understand, and evaluate day-to-day classroom practices.

A Research-Based Approach

While research shows that a high-quality curriculum can boost student achievement, it must be paired with curriculum-based professional development to yield reliable outcomes.

A 2018 Learning Forward study found that "implementing a new curriculum—and knowing when and how to adjust or make modifications to address specific student needs—requires professional learning that enables teachers to actually experience, understand, and practice with the new materials."[1]

In November 2020, the Carnegie Corporation of New York reinforced the earlier findings by calling for the transformation of teaching through curriculum-based professional learning. The authors call for a shift from "a lecture-heavy workshop that is disconnected from the day-to-day lessons teachers lead" to curriculum-based professional learning "that is active, ongoing, and focused on improving the rigor and impact of teachers' lessons."[2]

Professional learning from Great Minds delivers on this call to action. It focuses on the curriculum itself, providing educators with active learning experience and ongoing support for implementation that can also be customized to meet a school or district's unique needs.

[1] Learning Forward. (2018). *High-Quality Curricula and Team-Based Professional Learning: A Perfect Partnership for Equity.*

[2] Short, J. and Hirsh, S. (2020). *The Elements: Transforming Teaching through Curriculum-Based Professional Learning.* New York: Carnegie Corporation of New York.

Successful implementation rests on three requirements. All three are available from Great Minds to help you meet your goals.

Foundational Professional Development

Foundational PD sessions build and deepen new educators' understanding of the curricular design and pedagogy of *PhD Science*. Sessions help both teachers and science leaders learn how to implement *PhD Science* with confidence. All sessions are available in virtual and in-person formats.

Lead *PhD Science* K–5
Leaders will learn how to support a successful implementation by developing knowledge of the curriculum components and learning design and identifying key indicators of a successful *PhD Science* implementation.

Launch *PhD Science* Levels K–2, 3–5, and K–5
Educators explore instructional shifts within the curriculum's learning design, approach to knowledge building, and curricular structure through its use of authentic phenomena, hands-on investigations, and coherent storyline.

Module and Lesson Study K–5
This session helps educators better understand the process of internalizing a module and a lesson, including the progression of science content knowledge, standards addressed, assessments, and investigations.

Learn *PhD Science* K–5
Choose from two of the three-hour sessions listed below to complete your foundational professional development journey.

- Discourse for a Student-Driven Classroom
- Using Models in a Student-Driven Classroom
- Using Questions to Drive Student Learning

These sessions cover important topics and components that are beneficial in laying a strong foundation for a successful implementation.

Sustaining Professional Development

Seasoned practitioners who have completed our foundational sessions can deepen their understanding of the curriculum and strengthen their implementation through this advanced coursework. All sessions are available in virtual and in-person formats. Note that a minimum of five hours is required for in-person PD, which equates to two sustaining PD sessions.

Nurturing a Student-Driven Classroom
Participants discover how to nurture and empower students to drive their own learning by establishing and maintaining a positive classroom culture and classroom norms.

Managing a Student-Driven Classroom
Educators identify the components that are necessary for managing and facilitating a student-driven classroom as they plan and prepare for upcoming instruction.

Building Knowledge with the Content Learning Cycle
This session deepens understanding of the curriculum learning cycle, demonstrating the cyclical process students use to build knowledge, emphasizing the importance of using phenomena to drive instruction, engaging in scientific practices, and exploring coherent storylines.

Using Models in a Student-Driven Classroom
This session explores the importance of using collaborative conversations to build student knowledge while developing tools and strategies to support the nuances of crucial curriculum components such as the anchor model and anchor chart.

Using Questions to Drive Student Learning
This session explores the importance of using collaborative conversations to advance science instruction while providing tools for leaning into students' natural curiosity to motivate learning using crucial curriculum components such as the driving question board.

Pacing for a Student-Driven Classroom
Teachers identify pacing challenges, explore curricular resources, and hear from experienced implementers to support pacing decisions when planning and preparing for instruction.

Discourse for a Student-Driven Classroom
Participants identify how discourse supports a student-driven classroom and explore a process for discourse that includes support in laying a solid foundation, planning, facilitating, and reflecting on student-led discourse.

Differentiation for a Student-Driven Classroom
Educators build upon their understanding of differentiation and explore additional differentiation resources as they plan and prepare for instruction.

Planning and Preparing by Using Checks for Understanding
Teachers see how the formative Checks for Understanding assessment tool can help them monitor learning as well as guide planning and instructional decisions.

Leveraging Related Phenomena
Teachers discover how to leverage related phenomena to support students in transferring and applying science content knowledge.

Implementation Support

Implementation support sessions, designed for teachers and leaders, range from 30 to 60 minutes, and accommodate up to 30 participants.

Learning Labs K–5
In this offering, a *PhD Science* coach will work to build a customized topic-based session that is framed around district needs. Topics include (but are not limited to):

- Facilitating *PhD Science* Anchor Visuals
- Fostering a Student-Driven Classroom
- Instructional Routines: Best Practices for Engagement with *PhD Science*
- Materials Management
- *PhD Science* Assessments
- Phenomena in *PhD Science*
- Planning and Preparing to Use *PhD Science*
- Planning for a *PhD Science* Lesson
- *PhD Science* Curriculum and Resource Overview
- Supporting all Learners in a *PhD Science* Classroom

Customized Protocols
In this offering, a *PhD Science* coach will work alongside a school-level PLC leader (if applicable) to lead a PLC that is customized to meet the needs of the teachers and students. This will allow instructional coaches and teachers to walk away with the confidence, knowledge, and skills needed to fully support all students.

Topics include (but are not limited to):

- Targeted Module Study Protocol
- Targeted Lesson Study Protocol
- Analyzing Student Work Protocol: Checks for Understanding

Personalized Coaching Sessions

All sessions are available in virtual and in-person formats unless otherwise noted. Launch *PhD Science* is a prerequisite for purchasing coaching sessions.

Guided Observations for Leaders
Selected leaders participate in classroom observations with a *PhD Science* coach to identify trends of implementation including celebrating successes and identifying areas of growth. Participating in this session improves instructional leaders' ability to support effective classroom practice.
[In Person]

Prepare a Lesson Collaboratively
With the guidance of a *PhD Science* coach, educators plan, prepare, deliver, and debrief a lesson to improve student outcomes and establish best practices for instruction.
[In Person]

Recommended Learning Plan

Implementing *PhD Science* with Fidelity

We know that when teachers feel prepared and well versed in the curriculum, students thrive. To set educators up for success with *PhD Science*, our team created the three-year plan. With integrated PD and personalized coaching, this plan will help all teachers feel confident with the curriculum.

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<tr><th>Professional Development</th><th></th><th>Coaching</th></tr>
<tr><td colspan="3">YEAR 1</td></tr>
<tr><td>Foundational PD
• Lead PhD Science
• Launch PhD Science</td><td>SUMMER
(before Implementation)</td><td></td></tr>
<tr><td rowspan="3">Foundational PD
• Module and Lesson Study</td><td>FALL</td><td rowspan="3">• Guided Observations for Leaders
• Prepare a Lesson Collaboratively</td></tr>
<tr><td>WINTER</td></tr>
<tr><td>SPRING</td></tr>
<tr><td colspan="3">YEAR 2</td></tr>
<tr><td rowspan="2">Foundational PD (Full Day)
• Using Models in a Student-Driven Classroom*
• Using Questions to Drive Student Learning*</td><td>SUMMER</td><td></td></tr>
<tr><td>FALL</td><td rowspan="3">• Guided Observations for Leaders
• Personalized Coaching
– PLC Supports
– Prepare a Lesson Collaboratively</td></tr>
<tr><td rowspan="2">Sustaining PD (Full Day)
• Nurturing a Student-Driven Classroom*
• Managing a Student-Driven Classroom*</td><td>WINTER</td></tr>
<tr><td>SPRING</td></tr>
<tr><td colspan="3">YEAR 3</td></tr>
<tr><td rowspan="2">Sustaining PD (Full Day)
• Discourse for a Student-Driven Classroom*
• Pacing for a Student-Driven Classroom*</td><td>SUMMER</td><td></td></tr>
<tr><td>FALL</td><td rowspan="3">• Guided Observations for Leaders
• Personalized Coaching
– PLC Supports
– Prepare a Lesson Collaboratively</td></tr>
<tr><td rowspan="2">Sustaining PD
• Building Knowledge with the Content Learning Cycle*</td><td>WINTER</td></tr>
<tr><td>SPRING</td></tr>
</table>

*These sessions can be flexibly interchanged from our full list of Sustaining PD offerings based on district needs and conversations with your Implementation Lead.