



## What is *PhD Science*?

*PhD Science*<sup>®</sup> is a phenomenon-based K-5 curriculum in which students' natural curiosity drives the learning as they build enduring knowledge about the real world and its everyday wonders. Classrooms transform into a place of exploration as students learn to think and act like real scientists. By *doing* science rather than just memorizing scientific facts, students build problem-solving skills and knowledge that will extend beyond the classroom.

## FOSTERING CURIOSITY TO BUILD ENDURING KNOWLEDGE

### ACTIVITY BASED

Students acquire deep and lasting comprehension through hands-on activities and evidence-based learning. Students are actively doing science to build knowledge, rather than memorizing and quickly forgetting.

### STUDENT DRIVEN

Teachers act as facilitators, allowing students to drive the learning as they wonder and ask questions about authentic phenomena, analyze and synthesize information, and apply new knowledge to solve real-world problems.

### COHERENT STORYLINE

Each lesson builds on the lessons before it, so students develop their understanding of science concepts in the context of each module's anchor phenomenon.

## *PhD Science in Sync*<sup>®</sup>

*PhD Science* and *PhD Science in Sync* are complementary educational programs: one for classroom instruction, the other a continuous learning program designed to help students and teachers continue rich science education from anywhere. With video lessons and daily assignments, students can build knowledge if they—or the teacher—have to take time away from the classroom. The direct instruction videos also serve as pre-lesson modeling for teachers so they can lead with confidence.

## Open Educational Resource

At Great Minds<sup>®</sup>, we believe students should have access to coherent, knowledge-building instructional materials as soon as they begin elementary school. That's why we're offering Levels K-2 of *PhD Science* as a free PDF open educational resource (OER).



### Fine Art

Students engage with art in every module, allowing them to make observations, ask questions, and interact with scientific phenomena in a new, accessible context.



### Core Texts

Each module integrates authentic, content-rich texts that support or explain the science while giving students an opportunity to practice and strengthen literacy skills.

## Program Components

Every component of *PhD Science* serves a specific purpose in helping teachers facilitate student-driven learning in and out of the classroom.

### Print Materials & Manipulatives:

- Teacher Edition
- Science Logbooks
- Hands-on Materials Kit
- Core Texts
- Assessment Pack
- Student Science Pack
- Knowledge Deck™

### Digital Materials:

- Digital Teacher Edition
- K-2 OER
- *PhD Science in Sync*®
  - Science Journal
  - Daily Videos
  - PhD Projected
  - Learn Anywhere Plan

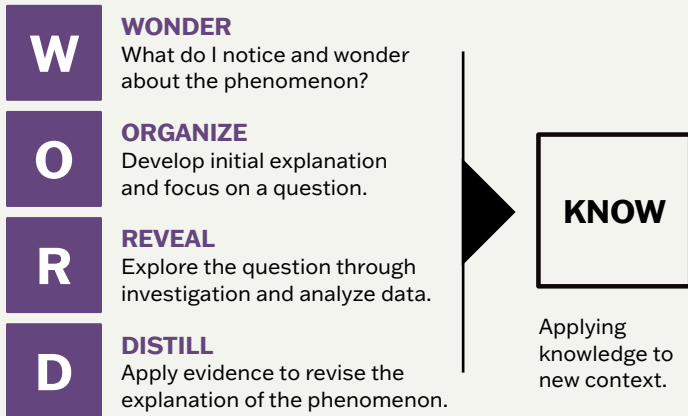


## Professional Development

Professional learning sessions are designed for teachers and leaders to deeply understand and prepare for implementation. Delivered virtually or in person, our team of current and former educators have experience implementing *PhD Science* in the classroom.

## Learning Cycle

During each concept sequence in a module, students engage in the following learning stages.



## Lesson Structure

Every grade level includes four phenomenon-based modules that are for approximately 100 days of instruction with 35–45 minutes per lesson.

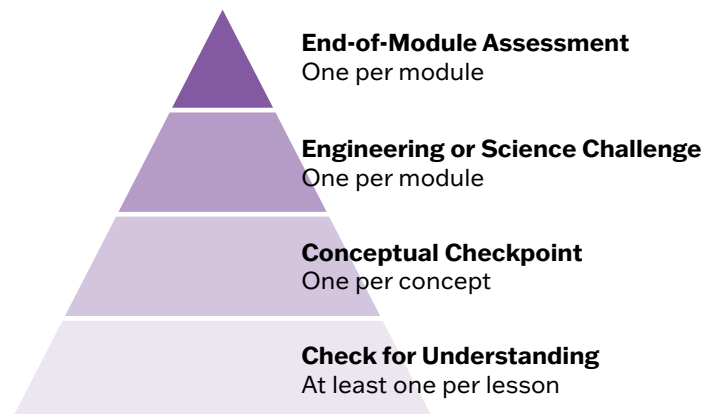
Alternative planning calendars are available to help teachers adjust pacing as needed.

Lessons are organized into three distinct sections to provide a clear plan for the learning.

- **Launch:** the lesson opening, which engages students as they begin thinking about the lesson phenomenon
- **Learn:** the heart of the lesson, during which students develop new knowledge and apply prior knowledge to explore phenomena
- **Land:** the lesson closing, in which students reflect on what they have learned

## Assessments

Our teacher-writers and experts carefully crafted *PhD Science* teachers have visibility into student understanding.



“I would just reiterate what a fantastic program *PhD Science* is. I think it goes beyond a curriculum—that it really is a program, a way to teach. It’s just the best that I’ve seen anywhere.”

—JULIE P., PRINCIPAL, STOCKTON, CA



[greatminds.org/science](https://greatminds.org/science)