



## WHAT MAKES POGIL DIFFERENT?

- POGIL materials are designed for use with self-managed teams.
- POGIL instructors act as facilitators of learning rather than as a source of information.
- POGIL materials guide students to construct concepts through intellectual exploration.
- POGIL materials help students develop higher-level thinking skills and apply knowledge in new contexts.
- Many of the activities are designed to support the Next Generation Science Standards for Middle School and High School students.
- POGIL classroom routines and procedures enable students to work together to form tangible connections with abstract concepts.
- Students in POGIL classrooms develop critical teamwork, leadership, and analytical skills.
- Research studies show that students in POGIL classrooms achieve higher test scores on common and standardized exams and have higher retention rates than students who are taught through lecture alone.

## WHAT IS THE POGIL PROJECT?

The POGIL Project is a 501(c)(3) nonprofit organization that shares its unique pedagogy, POGIL, by offering professional development events for educators and producing effective curricular materials for students in grades six through college.

For nearly two decades, The POGIL Project has equipped thousands of educators with the tools to provide high-quality, active learning experiences for their students.

The POGIL Project is based in Lancaster, PA, and has grown into a Community of Transformation for teachers, professors, and scholars who are leading education reform in school districts and universities throughout the United States and internationally. Many of these practitioners are working to develop new POGIL activities and training resources.

**We invite you to join our community of dedicated POGIL practitioners as we transform education for our students now and into the future.**

**FOR MORE INFORMATION ON POGIL OR TO SET UP A POGIL TRAINING WORKSHOP, PLEASE CONTACT THE POGIL PROJECT AT [MARCY.DUBROFF@POGIL.ORG](mailto:MARCY.DUBROFF@POGIL.ORG).**



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THE POGIL PROJECT

**PROCESS  
ORIENTED  
GUIDED INQUIRY  
LEARNING**





## WHAT IS PROCESS ORIENTED GUIDED INQUIRY LEARNING?

Process Oriented Guided Inquiry Learning (POGIL) is a student-centered, team learning instructional strategy developed through research on how students learn best.

The POGIL approach provides an innovative model that trains students to work together productively to construct important concepts of science, mathematics, and other disciplines.

The goal of the POGIL approach is twofold: to increase students' mastery and retention of fundamental disciplinary concepts and to support those students in improving academic and interpersonal process skills such as oral and written communication, information processing, critical thinking and problem solving, assessment, and metacognition.

## HOW DOES A POGIL CLASSROOM WORK?

When you enter a POGIL classroom, you may feel disoriented. Where is the teacher? Why are all the students sitting in teams of three or four and chatting with each other?

As you observe more closely, you will notice students reading questions aloud, intensely debating concepts, reaching consensus, and then writing answers on a worksheet. The instructor moves throughout the room, pausing at each team to listen to the students' discussion and review their answers.

If you listen carefully, you will begin to detect a pattern to the questions: first finding information from a Model on the worksheet, then developing a concept from that information, and finally, applying the concept to a new situation. You notice that this pattern repeats multiple times. This isn't just any worksheet—it is a carefully designed activity that engages students in creating their own deep understanding of a new concept.

As you continue to watch, the instructor gains the students' attention, facilitates team spokespersons as they share answers to a specific question, and then releases the team to continue work.

In a POGIL classroom environment, instructors do not simply "cover" material. Instead, student teams wrestle with information and ideas to discover fundamental course concepts. Along the way, they also discover important characteristics about themselves as learners.

**POGIL is a teaching pedagogy that makes students feel engaged, accomplished & empowered.**

## POGIL AND NGSS

The Next Generation Science Standards (NGSS) may seem daunting to implement in your high school physical science, biology, and chemistry courses. *Never fear! POGIL can help.*

Within the NGSS, there are three distinct and equally important dimensions for learning science. These dimensions are combined to form each standard—or performance expectation—and each dimension works with the other two to help students build a cohesive understanding of science over time.

By using specially designed POGIL activities, your students can experience the inquiry-based collaborative learning envisioned by the developers of NGSS. With some basic training on how to use currently available curricula, you can successfully combine the three dimensions of the NGSS in your classroom: disciplinary core ideas (DCIs), Science and Engineering Practices (SEPs), and Crosscutting Concepts (CCs).

