

Everyone Needs a *Mentor*

Guiding first-year teachers toward success

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Mentoring is a complex role that encompasses criticism and praise, pressure and nurturing, logistics, organization, and persistence. While many school districts have specific procedures and objectives for mentoring, the common focus is to provide the best possible experience for first-year teachers. This article offers ways in which mentors can ensure the success of new teachers for years to come.

As mentors, we need to acknowledge the perspectives and mindset of new teachers. In all likelihood, they just completed their education credentials, have tremendous enthusiasm for kids, and are in tune with the latest science content and education pedagogy. New teachers probably haven't written many lesson plans, given many tests, or led many discussions. They aren't familiar with lab equipment and how to use it safely with a group of teenagers. More importantly, they don't have the repertoire of tricks or confidence that comes with years of experience.



However, new science educators offer a fresh perspective on teaching and learning and an enthusiasm untarnished by bureaucracies, difficult students, and parents. Strong science departments and schools provide new teachers with enough support to stand comfortably on their own without zapping the energy that can revitalize a school system. The more we veteran teachers capitalize on the innovations of our new peers, the better we all will perform.

Before school starts

Mentors should get in touch with new science teachers before the first day of school to fill them in on district and school policies, first-day strategies, classroom structures, and any shared school laboratories or facilities. Mentors can assist new teachers with creating a syllabus, writing a welcome letter to parents, and developing a grading policy that meshes with the district and science department.



Classroom management is often a challenge for new teachers. Before the first day, new teachers must familiarize themselves with the school's discipline practices—procedures for tardiness, detentions and suspensions, and protocols for including parents when resolving classroom issues. Mentors should emphasize that many classroom discipline problems are avoided by having organized classroom operating systems, such as managing laboratory materials, distributing and collecting papers, recording tardy students, and conducting group work. If new teachers thoroughly review discipline policies before school starts, they can concentrate more on science content and process when students arrive.

Setting goals at the beginning of the school year allows new teachers to reflect on their progress as they revisit and revise their strategies throughout the course. Having a clear set of goals on paper is particularly useful because it helps focus energy on important objectives for science students and classrooms.

An open classroom

Once school begins, new teachers need to observe classrooms taught by veteran teachers. Mentors should invite new teachers into their classrooms and provide objectives for the class and how they will be accomplished. Mentors also can highlight verbal cues used by teachers to keep students focused, or small comments and glances used to build rapport and community within a group. The observing teacher can write down questions that arise. The rationale behind observed actions can be discussed after class. In subsequent observations, new teachers should focus on particular aspects of teaching: how to manage material resources, target activities to multiple ability levels among students, and instruct students to take notes during a class discussion.

Mentors also should observe new teacher classrooms. Peer advice and assistance are valuable development tools for new teachers learning the ropes. New teachers may also benefit from team-taught or team-planned lessons and units.

In schools where materials aren't plentiful, veterans should be generous with lab equipment and office supplies. The department should share resources acquired over the years and include new educators on special orders or deals.

School and district

Processes and procedures can be overwhelming to someone inexperienced and just out of school. Mentors help ease some of the burden by showing new teachers how to complete progress reports, order materials, reserve space in computer labs, set up field trips, and obtain resources from the library or media center. Mentors also should



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explain how to record attendance and tardies and ways to track phone calls to parents. New teachers should be introduced to the district's science coordinator and made aware of special events, such as districtwide professional development opportunities. Local e-mail lists are crucial for contacts and the chance to converse about science education with other professionals. Opening the school and district to new teachers provides much-needed resources and the comfort of knowing additional help and information is nearby. Introducing new teachers to the benefits of professional education organizations may help them identify potential contact sources when they need help with lesson plans or new trends.

Community connection

Even if new teachers grew up in the same neighborhood where they teach, they probably haven't looked at it from a scientific perspective. By encouraging new teachers to attend local museums, geological and environmental exhibits, and scientific group meetings in the region, mentors show them that every community has some sort of scientific presence. New teachers also should be encouraged to attend local school government or parent meetings.

A vision

New teachers need concrete examples of excellent practices. If there is a renowned teacher in the school, for instance, a teacher-of-the-year or one certified by the National Board for Professional Teaching Standards, new science teachers should observe the master in action. The school administration can support such observations by providing release time and class coverage. The aspects of quality teaching unique to science include laboratory activities with diverse groups of students and scientific inquiry. The more observations made of good teaching, the more background new teachers will have in their arsenal and the sharper their focus will be on their future growth.

Social importance

Given how isolating the teaching profession can be, mentors should reach out to new teachers on a social and personal level. Sitting by them in department and staff meetings, inviting them to the teachers' lounge for lunch or a break, and joining them at conventions or conferences can make a difference. Mentors should inform new teachers of opportunities to get involved with the school, such as chaperoning dances, attending athletic events, and organizing field trips with other classes.

Easing in

In many schools, classes are apportioned so new teachers receive the most difficult assignments—classes with large numbers of students, younger students, lower-ability students, or more special education students. Because the

first year is so challenging, the most inexperienced faculty members should be assigned to the least difficult classes. This allows the new teacher to ease into the career of teaching by minimizing frustration to ensure a positive attitude about science, students, and the teaching and learning process. Mentors need to advocate the needs of new teachers to department heads and administration—their success will bring success to everyone.

Focus on implementation

For new teachers, classroom management and lesson planning are activities of immediate concern. Many new teachers have difficulty seeing the connection between a well-behaved class and well-planned instructional activities. Standards-based curricula, such as those produced with support from the National Science Foundation, provide well-written lessons with student materials and equipment kits, allowing new teachers to focus more on implementation and less on curriculum design. They provide the research base and have documented effectiveness that offers a safety net to a novice teacher's first year. New teachers can focus attention on classroom management, interactions with students, and relationships with parents. For those who want to flex their creative muscles, there are plenty of additional resources, ideas, and activities that can be implemented to supplement what's already been developed.

Most teacher preparation programs will instruct new teachers in the appropriate use of state and national science standards (NRC, 1996), yet connecting these to practice is difficult. In conversations with new teachers, it is helpful to concentrate on standards that describe student knowledge and capabilities, particularly when goal setting. This ensures that the focus remains on the academic achievement of students.

The science teacher's first year doesn't have to be a difficult and trying experience. While many factors can influence the effectiveness of a first-year teacher, strong and meaningful support from colleagues can make the difference between a young amateur and a savvy practitioner. By working together, we can make new science educators in our schools more effective and that helps all of us. ~

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