



# Classroom Management

## Setting Up the Classroom for Learning

by Donna R. Sterling

**E**ffective teachers are prepared. They plan the classroom environment, set up the materials, are ready to teach before class starts, and continually analyze how to make their teaching more productive. Their classrooms are well-orchestrated places where students work productively, are respectful of others, and are successful. Class starts immediately and students know what is expected of them (see Figure 1).

Student learning is directly related to classroom control established the first week of school (Wong and Wong 2001)—what you do the first day counts, and what you do the first 10 minutes counts even more. This article shares the advanced planning aspects of classroom management that should be in place before students enter the classroom for the first time: the physical environment; routines, policies, and procedures; materials management; as well as a review process to extend what students learn.

### Physical environment

The first step in setting up your classroom is to arrange the physical environment. When you walk into an effective science teacher's classroom, you know it is a science classroom. Science equipment, materials, pictures, and student work are evident. It is not glitzy or cluttered. It is organized and functional.

Plan traffic flow in and out of and around the room

for easy student and teacher access to all areas. Minimize congestion in high-traffic areas. Organize materials for distribution, storage, and safety. Plan your work area for efficiency.

Instruction includes both the teacher providing directions and information, and students working together. Start by choosing a position in the room to teach where you have easy access to projection equipment and are able to write on the board. Choose a position as close as possible to all students where you can easily see and be seen by them (see Figure 2). This usually means that you are positioned at the midpoint of one of the long sides of the room. Avoid window walls, because students will have to look into the light, making it difficult for them to see you. In addition, looking out the window can be distracting. It is important to avoid having your main teaching position at the short end of a long room, because this maximizes the distance between you and students at the far end of the room. Once you have determined the place to position yourself for teaching, arrange and test your teaching equipment to ensure it will provide large images that can be easily read by all students in the room. After positioning this equipment for maximum visibility, arrange student seating.

Since small-group work is important for student learning, figure out how to arrange seating so that students can easily form pairs and groups of four (two pairs). In

## FIGURE 1 Effective teaching tips

Effective teachers do the following:

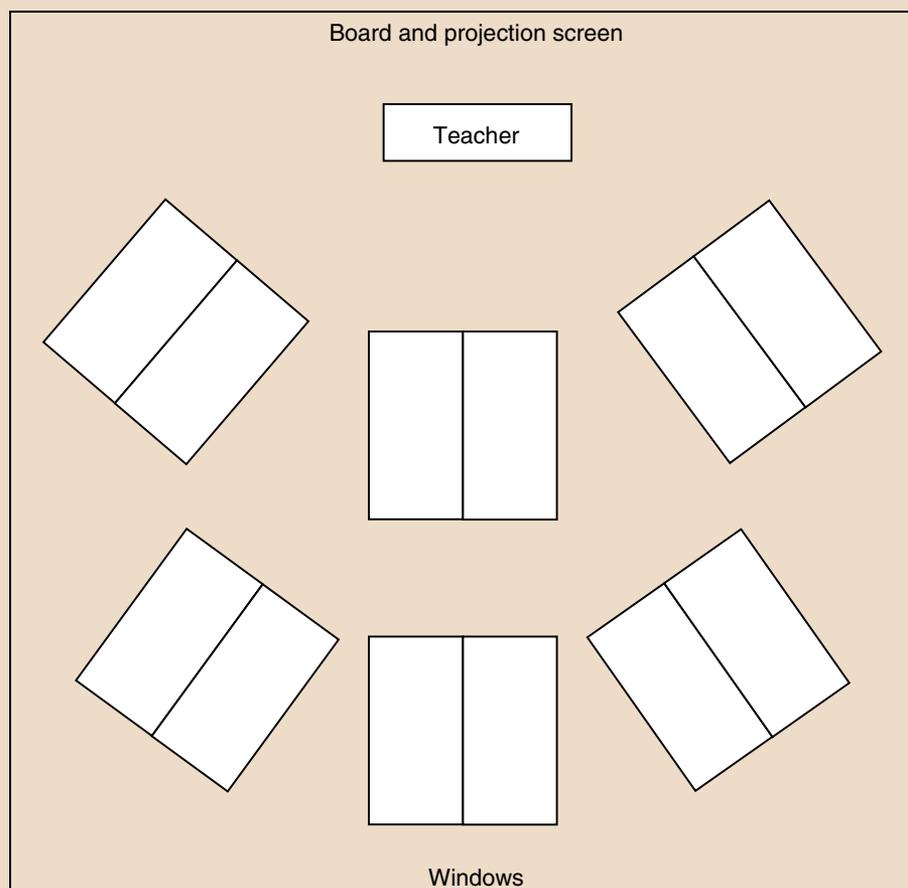
- Manage the classroom for student learning and success.
- Set up the physical space of the classroom to facilitate ease of movement and learning.
- Have planned routines for all standard tasks and procedures.
- Have a plan for the first day. This will introduce the routine for starting class for the rest of the year.
- Maximize learning time. When class starts, the first priority is to get students working, not to take attendance or answer individual questions.
- Let students know what they will be doing.
- Post assignments in the same place every day.
- Establish a class culture of positive expectations for all.

addition, students should not have their backs to you. If tables are rectangular, place them with the short side facing your teaching station and have students sit along the long sides. This way they turn their heads to see you but do not have to move their chairs. They also are able to do small-group work without having to move. If the tables are long, skinny two-person tables, place two together as in Figure 2. If you have one-person desks, place them in groups of four (see Figure 3).

## Routines, policies, and procedures

Effective classroom management involves the design and implementation of efficient routines, policies, and procedures for participating in class discussion, forming cooperative learning groups, accomplishing seat-work, collecting assignments, turning in late work, and leaving the room. There is no single routine, policy, or procedure that works for all students and teachers. You need to choose how things will work in your classroom and then train students in these procedures (see Figure 4).

## FIGURE 2 Room arrangement



## Class culture and rules

Establish a class culture of positive expectations. Keep the rules simple. Post the rules—respect for self, others, and the environment—in a prominent location. In class, respect is evident if when you talk, students listen. In return, you listen to students. Including respect for the environment on the list includes the safety aspects of science, especially chemical handling and disposal.

Laboratory safety rules should be compiled separately and need to be reviewed and signed by students and parents before a student conducts science experiments. If your school or science department does not have safety rules, then you must either write your own or find a set to use. Some science supply companies offer a list of laboratory safety rules online that you may print and use for free (see Resources). These are often available for different grade levels and in different languages. Also see this month's Scope on Safety column

and *Inquiring Safely: A Guide for Middle School Teachers* (Kwan and Texley 2003).

### Starting class

Establishing routines to facilitate classroom procedures is key to successful teaching and learning. Getting 20–30 kids to follow directions doesn't just happen, it takes planning. Some questions to consider are:

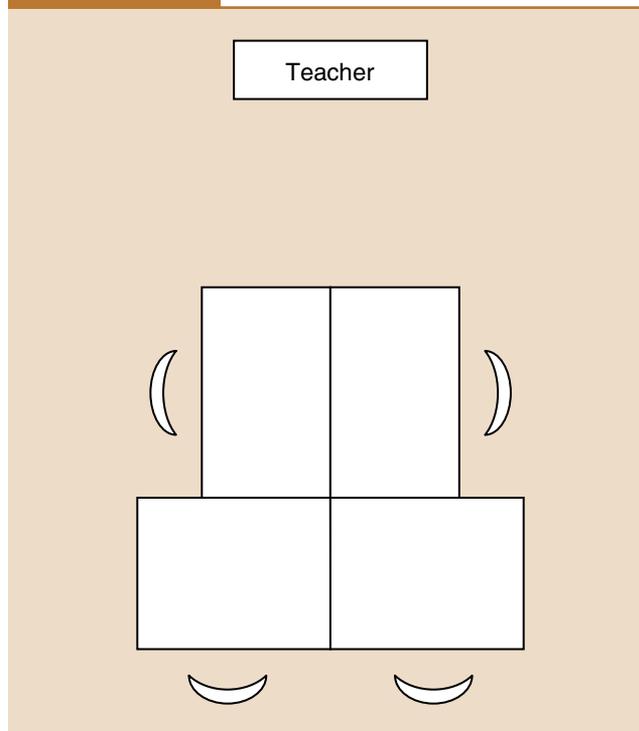
- What is the process for taking attendance in your school?
- While you are taking attendance, what are your students doing?
- Since doing the same thing every day becomes boring, what are other activities students can do to start class?
- How do these activities productively add to student learning?

When students enter the room they need to know what to do and that they are expected to be ready when the bell rings, not just starting to get ready. Expectations for each day can be communicated by writing on the board, overhead transparency, or presentation software. Students should know that they are expected to read the instructions and then do what is listed. Many classes start with a five-minute warm-up where students are expected to answer three questions or draw a diagram in order to review yesterday's material or recall prior knowledge needed for today. Tell them on the first day of school your expectations for starting class, which are to read and follow the instructions, and then carry through by collecting and grading whatever activities you listed on the board. Though sometimes you may grade particular answers, to establish the routine you can just grade for completion.

### Getting students' attention

When you are ready to start class, you need to get students' attention. It is paramount that you establish a routine of paying attention, which includes all students being completely quiet and looking at you, starting the first day. While the bell rings, purposefully move to the location where you conduct teaching—your movement and the bell help get the attention of students. Wait for complete silence. If another cue is needed, you can verbally greet the class, for example by saying, "Good morning." Another cue is a signaled response such as raising your hand. As students observe this signal, they are to stop talking and raise their hands. As needed, move closer to noisy students, since your proximity helps get their attention. Whatever method you use, establish this rou-

**FIGURE 3** Grouping four individual desks and chairs



**FIGURE 4** Routines and policies

Establish a class culture of positive expectations.

- Mutual respect for all
- Respect for self, others, and the environment
- When you talk, students listen; in return, you listen to students

Establish routines to facilitate classroom procedures.

- How class is started (what do students do while you are taking roll?)
- Collecting and distributing papers
- Collaborative learning
- Completion of work
- Closure at the end of class

Getting students' attention

- Purposefully move to the front of the room to start class.
- Verbal method—Greet the class, (e.g., "Good morning") and then wait for complete silence.
- Signal method—Raise your hand. As students observe they stop talking and raise their own hands. This continues until there is complete silence.
- Move closer to noisy students.

**FIGURE 5** Student learning

Name \_\_\_\_\_  
 Period \_\_\_\_\_  
 Course \_\_\_\_\_  
 Date \_\_\_\_\_

**Student learning**

1. What was the main idea of the lesson in which you just participated?
2. What did you learn today that you did not know before?
3. What else would you like to know about this topic?
4. What about this lesson helped you understand science better?
5. How could this lesson have been more effective for you?

**FIGURE 6** Instructor lesson assessment

Topic of lesson \_\_\_\_\_  
 Instructor's name \_\_\_\_\_  
 Date \_\_\_\_\_  
 Course \_\_\_\_\_  
 Number of students in class \_\_\_\_\_

**Before the lesson**

1. After teaching this lesson, what do you want students to know?
2. After teaching this lesson, what do you want students to be able to demonstrate or do?
3. Describe how you are going to teach this lesson. (Attach appropriate samples of materials to be used.)

**Prediction immediately after the lesson**

1. What do you think students learned?

**Analysis of student questionnaire**

1. What did students think was the main idea of the lesson?
2. What did students learn that they did not know before?
3. What else did students want to know about the topic?
4. What about the lesson helped students understand science better?
5. According to students, how could you have improved this lesson?
6. What implications do these findings have for future lessons?

tine the first day. The time this takes the first week pays huge dividends of saved time in the long run.

**Collecting and distributing papers**

In order to maximize instructional time, you need to establish efficient routines to collect and distribute papers. Some questions to consider are the following:

1. How will you quickly and efficiently collect papers
  - at the beginning of class?
  - in the middle of class?
  - at the end of class?
2. How will you collect tests?
3. How will you quickly and efficiently distribute papers with no student names on them
  - at the beginning of class?
  - in the middle of class?
  - at the end of class?
4. How will you quickly and efficiently distribute papers with student names on them
  - at the beginning of class?
  - in the middle of class?
  - at the end of class?
5. How will you distribute graded tests?
6. What will you do with the papers of students who are absent?
7. What will you do with the papers after you collect them? How will this help to organize the papers?

**Ending class**

To provide an orderly closure to the day's lesson, five minutes before the end of class, no matter where you are in the lesson, you need to shift to closure activities for that day and expectations for the next. Post homework assignments in the same place every day. Be careful not to fall into the trap early in the year of saying that students can complete class work at home. This can translate into "You do not need to work in class," even when your expectation is that students do the work in class.

Some questions to ask yourself about ending class are:

- How will you bring closure to class each day? What routine will you establish?
- During the last five minutes of class, how will you have students summarize what they learned today?
- How will you have students connect what they learned today with previous and future lessons?
- What will you do to have students come to class prepared for tomorrow?
- You have finished everything you planned to teach today and there are 10 minutes left of class. What will you have students do?

## Materials management

In addition to the general routines of collecting and distributing papers, have a plan for how you manage student papers. Sticky notes, paperclips, and pencils are necessary tools. When a set of papers is collected, paperclip them together and label them with the class period and what they are, such as “7 HW” for period 7 homework. Then place them in the location you have designated for papers to be graded. After papers have been reviewed, put a check on the sticky note and return them the next time class meets.

When distributing and collecting science materials, have students do as much as possible. Set it up so that students always go to the same area to collect and return the same type of materials—chemicals in one area and glassware in another. You can also distribute sets of materials on trays or in baggies. If you have storage in a stockroom, have a cart to transfer the materials to the classroom, since for safety reasons students should never be in the stockroom. Determine where to use equipment such as balances, which could be in a common area or at each team’s workspace. If equipment is used in each team’s workspace, have first period move it there and last period return it.

To make sure experiments work, do all experiments before using them with students. This helps to ensure you have all needed materials and lets you know what safety instructions you need to give students. Cleanup needs to be part of the planning. Without detailed planning and communicating those plans for cleanup, you will spend hours at the end of the day cleaning.

## Review process

To check on your progress for maximizing student learning, survey students to compare what you think you have taught students to what they think they have learned (see Figures 5 and 6). It is sometimes surprising to find out that students have focused on something very different from your intent. In addition, if you have a fellow teacher or teachers who can serve as critical friends for the purpose of helping you become an even better teacher, you can use a peer-observation sheet to generate a discussion about teaching and learning in your classroom (see Figure 7). In an appropriate collegial environment, looking at your classroom through the eyes of others can be a very enriching form of professional development. ■

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**FIGURE 7** Peer assessment

Name \_\_\_\_\_  
 Period \_\_\_\_\_  
 Course \_\_\_\_\_  
 Date \_\_\_\_\_

## Peer observation

### Beginning the lesson

1. Time bell rang:
2. Time learning started:
3. What evidence was there that students knew what to do to start class?
4. How did this lesson connect to or build on previous learning?

### During the lesson

1. What evidence was there of student-centered learning?
2. How was the lesson differentiated or adapted for different learners?

### Closure

1. What science concepts were explicitly connected?
2. How does this lesson connect and prepare students for the next lesson?

### Overall learning

1. What was the main idea of the lesson you just observed?
2. How did the physical setup of the classroom and routines support or hinder learning?
3. What about this lesson helped students understand science better and its connection to the real world?
4. How could this lesson have been more effective?

## References

Wong, H.K., and R.T. Wong. 2001. *The first days of school*. Mountain View, CA: Harry K. Wong.

## Resources

Kwan, T., and J. Texley. 2003. *Inquiring safely: A guide for middle school teachers*. Arlington, VA: NSTA Press.  
 Safety contracts and exams—[www.flinnsci.com/Sections/Safety/safety\\_contracts.asp](http://www.flinnsci.com/Sections/Safety/safety_contracts.asp)

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