# Chapter 16

# **Organization and Management**

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### Everybody wants to learn...

Everybody wants to learn. Even repeated failure does not discourage our natural desire to learn—how else would any of us have learned to walk after so many early falls? Outside of school, time is on the learning child's side. Outside of school, being slow to learn is not synonymous with failing. A learner facing failure can stop for now and try again another time. A child who learns to walk at age one and a half, instead of at age one is still walking. The child's parents are no less excited at the first steps because some other child walked at a younger age.

Failure in school is not the same as other failures young learners face. In school, learning is associated with speed. There is pressure on each child to keep up with the class. There are grade-level expectations to meet. Children who do not learn at the right speed for school, learn instead that their rate of learning is not good enough. They learn that they are failures. They learn that they are dumb.

The students in our rooms who do not care for learning are students who had once cared to learn but who have learned instead that their rate of learning is not fast enough. When can a slower learner ever hope to be a faster one? When can the distance they find between themselves and their peers ever shrink instead of grow? Slowness means failing permanently. For students used to failing as a way of life in school, not trying is a more reasonable alternative than trying and failing one more time.

The teacher's responsibility is to teach. The child's responsibility is to learn. Whose responsibility is it if the teacher teaches and a willing child does not learn?

If we teach and a child who is trying does not learn, the responsibility is ours. We are the teachers. We accept no learning failure of the willing child as a failure of the child. If a child does not learn the way we teach, we change the ways we teach until the child does. Teachers everywhere believe that all children can be taught so that every child learns. Could we teach if we believed otherwise?

#### Beliefs...

When we teach, we start with beliefs about ourselves as teachers. We start with beliefs about the learners in our care, as well. Here are some beliefs that we might share in common:

Everybody is a learner. Everybody wants to learn. This is as true for teacher as for child. Every child in our room is on our side. More difficulties arise from poor communication than from lack of desire to do well.

Repeated failure for a child is a reason for a child's giving up.

- If a child in our room is ready to learn, we will teach that child what the child needs to know to be successful in our class. If one way of presenting a concept does not work with a child, we will try another and another and another until we have found a way that does. No willing child will fail in our room.
- It is possible to make every child a willing child.
- We have the power to change the teaching and learning environment in our room to meet the needs of every child in our care.
- We have as much to learn from children as children have to learn from us.

The teaching described in the previous chapters reflects the above beliefs. The *Behavior Management* and *Keeping Track of Student Learning* sections that follow reflects the same beliefs.

#### **Behavior Management**

#### Michelle...

Michelle is calm and serene in her classroom. She conveys an aura of dignity as she moves about her room. She loves the children that she teaches and the children love her. She treats every child with respect and every child treats her with respect, in turn. Why then is Michelle's classroom a disaster? Teasing and fighting among the children is commonplace. Is it because Michelle teaches in the inner city, or might there be another cause?

Michelle has a list of rules posted on the wall, but she has no real plan for managing the behavior in her class. There are no consistent consequences meted out for wrong doing. There are no rewards for good. Michelle has not yet recognized the power that she has to set the standards for her class and then see to it that the standards are met. Michelle feels, instead, that certain behaviors of her students are beyond her power to control. Is she right? Are there ways that children treat each other that are a natural part of childhood? Are there behaviors that we as teachers simply must accept?

#### Boys and girls...

Boys prefer to work with boys and girls prefer to work with girls. Is this a natural behavior of children in the elementary grades that we must accept? Or, is this a behavior that is encouraged by believing that it is just the way things are? What would happen if, from the earliest grades, with no exceptions made, we required the boys and girls in our care to work and play together?

In a fifth-grade class that had heretofore sent the boys out to play kickball and the girls out to play hopscotch or jump rope, the teacher made a change. She picked a boy captain and a girl captain for a weekly kickball team. The girl captain was instructed to chose a boy first, then a girl, then a boy and so on. The boy captain was instructed to chose a girl then a boy then a girl and so on, until everyone was chosen. The teams were to have their ups in the order chosen, with no one allowed to miss a turn. The last two children chosen on this date were to be the captains for next week's teams.

There were girls who had never played kickball before who were reluctant to take their turn at being up. They were afraid that they would fail. Ridicule was something not allowed in this classroom. Instead, the children who needed help were taught by their more skilled teammates.

As the year progressed and the boy-girl games continued, the level of skill possessed by all children, boys and girls together, grew tremendously. Even the last chosen children did not feel so left out, since the next week, the last chosen became the ones in charge of choosing everybody else. And, as the year progressed, the children stopped dividing themselves by sex at recess. They accepted as quite natural that boys and girls could play together.

At the end of the first school year this teacher had introduced her boy-girl kickball teams, the next-door fifth-grade class challenged her room to kickball games at P. E., boys against the boys and girls against the girls. The boy teams played each other fairly equally. The girl teams were not so well balanced. Many of the neighboring fifth-grade girls had spent their year playing hopscotch and jumping rope. They had not learned to kick or catch or throw. When the girls from the boy-girl class were up to kick, they stayed up for the remainder of the period. They were now so collectively skilled that the other team could not get a single one of them out, not even the ones who had played no kickball before the start of this school year.

In another class, the teacher arranged the seating of her children boy-girl-boy in one row and girl-boygirl in the next, alternating row by row. She then required her students when working in teams to work with their immediate neighbor. This meant that most every working partnership was male-female. The boys and girls worked together because it was expected that they would. And, they worked together well. It did not occur to them that they could not. A teacher visiting this class as the children were working in their teams asked, "How do you manage getting the boys and girls to work together? I could never do that in my room!" The reply was, "Have you ever tried?" We are the teachers. We can get what we accept or we can get what we expect.

#### We have the power...

To get what we expect requires knowing what we want and then planning how we will achieve that end. The teachers with the coed kickball teams and the class with alternating rows wanted boys and girls to work and play together. Both teachers started with the assumption that they had the power to change the teaching and learning environment in their rooms to meet the needs of every child in their care. Their plans of actions were designed specifically to reach their goals.

We reach our goals by:

Establishing the goal. Generating a plan for accomplishing the goal, with the expectation that the goal will be achieved. Revising the details of the plan as often as is necessary, to match what we thought would work to what does.

Never giving up.

We have the power. The more we learn to use our power, the more power we have.

#### Responsibility for themselves...

In our own classroom, we may:

- Know that everyone can learn—but there may be students in our class who have already given up on themselves as learners at school.
- Expect our students to take responsibility for their own behavior, so we can plan our lessons for the best learning and not for the best control—but there may be students in our rooms who do not seem to take any constructive responsibility for themselves.
- Wish our students to work together cooperatively—but there may be students in our room who do not work well with anybody else.

Want the ideal teaching situation to exist—but the ideal may not be present in our room.

Our goal is that everybody in our class will learn, no excuses, no exceptions. If our goal is to be achieved, we must start with the expectation that we have the power to make it so, regardless of the situation that exists within our class. No excuses offered. No exceptions allowed.

What kind of plan might we generate for realizing our goal? Depending on the learning skills our students bring with them to school, the first step may need to be helping all of our students learn to take responsibility for themselves.

Students who have not assumed responsibility for their own behavior can divert our attention from teaching to governing their behavior. How can we approach a lesson on geoboards with confidence if we are concerned that the rubber bands will be shot around the room and not used to find ways to make areas of two? If behavior is a problem in our room, then we help our students learn to accept responsibility for the quality of their behavior so that we may ensure the quality of the lessons that we teach. Learning to take responsibility is as important in a child's growth as learning how to read or learning how to think mathematically.

The point system described below is designed to make the task of teaching personal responsibility in a classroom environment a manageable one. It has been used successfully in classes whose potential for student disruption was high and where a substantial number of students considered themselves to be academic failures. It has been used in modified forms in all grades, from kindergarten through sixth.

## The point system...

Some children come to school ready to settle down to the task of learning every day, some do not. Some children alternate between being ready and not ready day to day, depending on their mood. No matter where we teach, our classrooms have students from all three groups.

The first group is composed of students who are ready to do whatever we ask. If they do not understand what we have asked of them, they are equally ready to sit quietly until we have time to give them additional instruction. Their home environment has so prepared them for school and for accepting our authority that it would not occur to members of this group to offer us offense in any way. The members of this group rarely, if ever, get into trouble, and always try to complete their work, whether they understand the lesson or not. Although we might wish this group to be the largest in our class, we often find that it is not. The second group may or may not be ready, depending on the day. These students often make up the majority of our class. They come to school each day because they are supposed to come. School may not be their favorite place, but all their friends are there. When asked to name a best subject, recess or P. E. nearly always wins. These students do not come to school to cause us grief, but they have signed no contract guaranteeing that they won't.

The third group does not seem to be ready at all. Although this group usually constitutes only a small minority of our class, it is this group that causes us sometimes to wonder what possessed us to choose teaching as our career. The reasons for this group's behavior are complex. Among very young children, the behavior might be traced to a home environment that failed to ready them for the social and academic experiences they would encounter in school. For older children, school has often become a contributing factor. A student who has never earned any praise from a teacher for academic success may, instead, choose to earn the attention of classmates for leadership in other areas. If a student cannot earn praise for being good, he or she might just as well earn recognition for being bad.

Although the reasons may be complex, the reasons are not our concern. Our concern is the behavior, regardless of the cause. A common pattern in a classroom setting is for students in the third group to act out disruptively. Someone has to decide to shoot the first rubber band. This acting out is reinforced by students from the middle group, who may be in the mood that day to follow a disruptive lead. The third group provides the leadership, the second group provides the followers, and members of the teacher's favorite first group act as spectators to the teacher-student battle that ensues.

Although the disruptive third group might seem the prime area of concern, this is not the group targeted by the point system described below. Rather, the point system is aimed specifically at the potential followers in the second group. If the followers can be taught to ignore disruptive leadership, the effect of disruptive behavior diminishes rapidly. What often causes the problems in a classroom is not the initial outburst, but the chain reaction of subsequent outbursts. If there were only one rubber band flying through the air, we could cope. Our concern is all the rubber bands that are fired in return.

The purpose of point system is to stop the followers from reinforcing the negative behavior of the disruptive leaders. This does not mean we are to ignore the disruptive behavior. Rather, we are isolating the disrupters so we can minimize the effects of their behavior. We can then deal specifically with their individual difficulties without at the same time having to deal with the problems of a classroom out of control.

#### Six different kinds of behavior...

The point system focuses on six different kinds of behavior. These six behaviors were selected because they were found to be important to teachers in many of the classrooms already making use of the point system. If these specific areas are not a concern to us or if we have other areas which we might wish to include, we can modify the list to suit our needs.

The six behaviors are:

Starting work promptly. Working diligently. Cleaning up promptly. Using peoples' correct names. Helping others to learn. Tending to one's own business.

#### Starting work promptly:

When students come into class at the start of the day or after recess they are often excited about something that happened on the school yard: a fight, a game, or some gossip. Although students should be encouraged to talk to each other, even about non-school matters, if the class is permitted to unwind slowly from each recess, much valuable learning time can be wasted. For this reason, it is often worthwhile to reward students for coming in and starting work immediately.

#### Working diligently:

One student may spend an hour working on a page of problems and leave the page undone. Another student may spend five minutes completing every problem on the page. Who has put more effort into learning? If the child who does not yet fully understand everything we teach is to feel capable of succeeding, the measure of the child's efforts should be something other than the number of problems completed on the page.

Working diligently is our way of placing value on working hard. When we value hard work rather than specific output, all students can be rewarded for their efforts. When all of our students work hard at learning, learning for all of our students is the result.

Why call this category working diligently? Why not call it working hard? We can call the category anything we wish. We can also use every opportunity that we have to teach our students more than they now know. Work is a word our students already know. Diligent is a word that they can learn.

#### Cleaning up promptly:

When we decide it is time for our class to stop one activity and start another, as little time as possible should be wasted in the transition. To ensure quick cleanup, we announce the time allowed for putting things in order and then rewards those students who meet the deadline with points. One-minute or three-minute sand timers work quite well. The sand timers provide a visual image of how much time remains for cleaning up.

#### Using peoples' correct names:

Some students' environments outside of school tolerate name calling. This name calling may sometimes be in fun, but names are more often used to taunt or tease. At the beginning of the year, we ask each student the name he or she would like to be called. That name becomes the only name which may be used to refer to that person. Any other name is "name calling." No one in class is named "boy" or "girl" or "Anna Banana", or even "Teacher". Everyone's correct name is the only name to be used.

#### Helping others to learn:

This is a catchall phrase meant both to encourage students to help one another and to discourage any deliberate act by one student that keeps another from learning.

If a student takes a pencil from another student, the second student is distracted and cannot learn. If a student hits another student or hides another student's books or papers, these acts, too, prevent learning. Each student in class is encouraged to help every other student in class. Hindering is definitely not a help.

#### Tending to one's own business:

It seems that every classroom has one or two students who delight in tattling on their classmates. Although specific instances may exist when it may be necessary to inform on a classmate, these occasions are rare and should be confined to a very narrow set of situations. Tattling is bad for class morale and, if allowed, leads to the formation of a group of students who seek to win our approval by turning in their classmates for the smallest infractions.

A student is justified in reporting another student to the teacher only if the student to be reported has done something that directly affects the reporting student or if reporting the action prevents real harm. Any other reporting is not tending to one's own business.

# She did it first!...

When we have explained the point-system categories to our students and the system is in use in the classroom, students may initially try to defend an inappropriate behavior or action by saying, "She did it first!" In the point system, we make no distinction between who started it and who joined in later on. No excuses are accepted.

Students quickly learn that we consider each student responsible for his or her own behavior. Other students' actions cannot be used as an excuse for what we do. If someone sent a rubber band sailing across the room, that act is not a justification for sending one back. Someone calling you a name, is not an excuse for calling one in return.

We do not deal with the issue of who started something for two reasons. First, if we accept as important who started it, then it becomes our responsibility to hear both sides of the issue and assign blame. This process is time-consuming and frustrating and, in most cases, leaves one or the other of the parties feeling unjustly treated. Second, if we accept the excuse that someone else started it, then we are saying, in effect, that under some circumstances it is permissible to call names, or tease, or hit. Because these behaviors are not acceptable under any circumstance, the fact that someone else did it first is irrelevant.

Responsibility for one's own actions is the single most important notion associated with the point system. By eliminating the excuse "He did it first!" we eliminate the support system for those who act out in class. If a student pokes or teases a classmate, that student quickly finds no one will respond. This lack of response from one's classmates is a power of the point system and is one of its most significant effects.

# **Recording sheet...**

We determine the categories for the points and then decide the time intervals over which students earn the points. Two different recording sheets are shown below. The first recording sheet is for an uppergrade classroom with one morning recess, and the second is for a kindergarten class.

> (illustration 16-0-1) (Two recording sheets matched to the descriptions below.)

If our school day does not match the examples, we can design the sheets to match whatever schedule we might have. The only element that is important to include is that each new recording period on the sheet begins when the class comes in from after recess, start of school, or lunch breaks.

The left-hand column is for the students' names. The six category headings are written across the top of the page in each of the time blocks. Underneath each heading is a number between one and three, representing the number of points a student may earn for behaving appropriately. The actual number of points in each column is based on the importance given by the teacher for the different behaviors. In the recording sheets above, "working diligently" is emphasized and "starting promptly" is not given the same significance. The relative values of each column may be shifted from time to time depending upon the behaviors about which we are most concerned.

Each separate block of time has a column for the total number of points earned. For the upper grade record sheets above, twelve points can be earned in each of the three time slots—a maximum of 36 points is possible on any given day. Perfection is expected but not required. The minimum standard in this class is 30 points out of 36.

Once designed, recording sheet is photocopied to permit the use of a new record sheet each day.

#### Activity time...

Points are our students' ticket to activity time. Activity time is a 15- to 20-minute period at the end of each school day when our students may choose what they wish to do. Their choices may include such things as drawing pictures, playing checkers with a friend, writing with chalk on the chalkboard, building with the Legos, playing games on the computer, or even continuing some of their school work.

During activity time, we make all the resources in our classroom available to our students: old typewriters, puzzles, all kinds of games, looms, yarn, knitting needles, scraps of cloth, needles, thread, building blocks, Legos, chalk and erasers, tape recorders, computers, broken clocks to be disassembled, wood scraps, hammers and nails, items that might ordinarily have been held in waiting for rainy days, and anything else that is in the room. Flea markets, garage sales and relatives are good sources for building up our stock of activities available. Our regular teaching materials are freely accessible to our students, as well.

Activity time is a very exciting time of the day for our students and for us. Thirty points is all it takes to join right in.

#### Awarding points...

The point system can begin as early as the first afternoon of the first day of school. On the first day of the system, we explain to our students about the activity time they will be having the following afternoon. We show our class all the materials that will be available for their use. When our students are thoroughly excited about activity time, we explain the point system to them.

Not all our students will fully understand the relationship between the points they are to earn and all the specific behaviors involved after one brief explanation. Most will understand, however, that they will need to earn a certain number of points to earn activity time.

The record sheets in the illustration above have the last period of the day, not the first, in the first block of time. This is because the points earned for each day start accumulating at the end of the previous day. Once we finish explaining the point system, we inform our students that they have already started earning points for the next day. Before they leave at the end of that first day, they are told they have all made an excellent start toward earning tomorrow's activity time.

Throughout the following day, we frequently reminds our students that they are earning points in the various categories. As soon as our students are given their first assignment, we say:

#### I am now awarding points to those people who are starting their work promptly.

A few minutes later we say:

#### I am now awarding points to those people who are working diligently.

Shortly before the end of the period, we say:

# You have three minutes to clean up and return to your desks. At the end of the three minutes I will award points to the people who have cleaned up promptly.

We make similar statements throughout each period:

# I can see many of you are really helping each other learn. I am now awarding points to those people who are helping others learn.

# You are making a real effort to call everyone by his or her right name. I am now awarding points those people who have been calling other people by their right names so far today.

And so on.

At the beginning of the next time block, we praise our students' efforts and reads them their total points from the preceding time block.

#### Every student, every day...

During the first few days of school we make constant reference to the awarded points and reads the point totals regularly. Later, we only occasionally inform our students when we are actually recording points. Subtotals are no longer read at the beginning of each time block. Instead, we read the grand total just before activity time begins. As the weeks progress, totals are no longer read. We simply announce who has earned activity time. Finally, we simply announce the start of activity time without reading any names at all. When this point is reached, our goal will have been achieved and the point system will have served its purpose. Our goal, stated frequently and openly to all students, is for every student to earn activity time everyday.

As our students gain familiarity with the categories of behavior that earn them points, we may, for a few days, give them an extra reminder or two before beginning to record the points. These reminders are our way of making sure every student earns activity time at least one or two days during the first week. If a student earns activity time at least once, that one time can be used to help the student earn it again and again.

Some students, particularly those in the upper grades, are so accustomed to failure, that they do not expect to earn activity time at all. If they are left with this sense of impossibility, they have no reason to believe that they are capable of earning activity time through their own actions. By insuring that these students earn activity time sometime during the first week, the possibility of earning it again becomes a reality.

#### Any student who does not...

Any student who does not earn activity time on any given day meets privately with us at the beginning of activity time to discuss the specific reasons why. We discuss the areas in which the student had difficulty earning points. Together, we develop a plan that will help the student earn activity time the next day.

The child who has not earned activity time is not accused of being bad. A child who is not doing well in school can learn to take perverse satisfaction in being bad. "Bad" is not in our vocabulary. Badness may also match a child's negative image brought from home to school. The child failed to earn activity time this day because the child was not yet ready to learn. The focus of our teacher-child discussion is on working out a plan that will have the child ready to learn the following day.

At the same time that we and the student develop a plan for helping the student earn activity time the following day, we decide what the student is to do in lieu of activity time on this day. The penalty of not having earned either the free choice of activities or the free interaction with classmates that activity time represents is the only penalty imposed. The activity the student is assigned is not an additional penalty. It is acceptable if the student wants to sit and do nothing or work quietly on an assignment. The student may not, however, work with anyone else during this time or work any place other than his or her own desk.

If a student is angry because he or she hasn't earned activity time, two factors dissipate this anger. The first is the meeting with the teacher to discuss what went wrong and how to correct it. The second is the fact that during this day's activity time the student is already beginning to earn points for the next day's activity time. Each new recording sheet for points begins at the end of the previous day. A student who has failed to earn activity time on one day is already in the process of earning it for the next. This means a student may leave school knowing he or she has already made and excellent start for the following day.

The point system allows us to tell particular students they cannot have something they want, while siding with them in their efforts to achieve it on the following day. It is the lack of points and not the teacher that prevents a student from having activity time.

#### Medicine...

At the start of the year there may be a few students who do not earn activity time everyday. These are the students who have been isolated by the point system itself. It quickly becomes worthwhile for the substantial majority of our students to fail to respond to provocation. These are the students who are learning to take responsibility for themselves. Those not earning activity time are, therefore, either the instigators or the students who have not yet learned to take responsibility.

The point system will not eliminate all behavior problems in our classroom. Its purpose is to isolate the sources of the problems and diminish the number of students willing to follow a bad lead. Once specific students have been isolated, we work with them individually until they, too, earn activity time on a daily basis.

The point system is like medicine a doctor gives a sick patient. The medicine helps the patient recover. As the patient improves, the amount of the medicine needed diminishes. When the patient is well, there is no longer any need for the medication. For our classroom, the points are the medicine. There will be a time when the medicine is no longer needed.

#### All year long...

The point system is meant to fade away. Activity time is meant to continue all year long.

We start our year with free exploration. We soon move on to lessons with more specific goals. During our lesson-filled days, when do we have the chance to see how our students interact when they are on their own? When do we have the time to sit and chat with any child about nothing in particular? The answers to these questions can be found in the activity time that we provide.

Activity time is 20 minutes or so each day when everybody in our room may be just who they are. There are no grades. There are no pages to complete. There are no lessons to explain. There are no responsibilities. There are just people in a room relaxing and enjoying each other's company. There is no better way to end a day in school. Activity time continues all year long.

# Technicalities...

Recording points for appropriate student behavior involves observing each student for each category and recording by each student's name the number of points earned. It is important to record points for each student in each time block during the first few days of using the point system. After the first week, however, the points may be recorded in a more efficient manner.

Instead of recording which students earned points in any category, it is simpler to place a small dot in the appropriate square for a student who has failed to earn the points. This means, for example, that in the column for starting on time, if all students but one started on time, we place a single dot in the space of the nonstarter rather than record numbers of points earned by everyone else in class.

Although the dots on the record sheet mean we are actually recording who <u>did</u> not earn points, all comments to the class are phrased in terms of who <u>did</u> earn points. We read aloud how many points each person has earned, and never say how many points anyone failed to earn. Phrased positively, all students in class, even the ones who fail to earn activity time, are earning points.

The psychology behind taking away points is decidedly different from that of earning points. If each student starts out with 36 points and we only keep track of points lost, the process becomes one of hanging on. Once a student slips below the 30-point level, any incentive to keep on trying is gone. There is no longer any hope. Those children who slip below 30 can easily make their new goal seeing how many points can be lost. Which of us would like to be teaching in a classroom where students were trying to reach zero? For the same reason, once earned, points are never taken away.

## Fighting...

Fighting is not on the recording sheet because a student who fights with a classmate is treated as a very special case. Fighting destroys the learning atmosphere in the classroom. The people directly involved in the fight are too agitated to concentrate on learning. The children in class who witnessed the fight become too wrapped up in the verbal by-play that follows to focus attention on anything but the fight and its repercussions:

Who started it? Who won? Who did you want to win? Who will get even with whom later on?

We must deal with all the bad feelings and the threats of retaliation that ensue. The bad feelings that result can last for days.

Fighting between classmates anywhere, even at home, is terrible for learning in the classroom. Because it is so serious, if any student fights with a classmate anywhere, both students' names are crossed off the points list for that day. The complete removal is to emphasize to all students our displeasure with fighting.

Immediately after a fight between classmates, we may also refuse to provide either of the students involved with any academic assistance, and we may also refuse to let them participate in any of that day's learning activities. If students are not at school to learn, they have no need of a teacher. Fighting with one's classmates is clear evidence of not being at school to learn.

In schools where fighting among students is common, this harsh approach has proved to be effective in eliminating inner-classroom battles. No explanations are accepted for the fight. Fights between students in different rooms in the same school should not affect a person's status on the points list, however, because we can have no control over the behavior of a student from another room.

A conflict may arise between our attitude that fighting at school is bad for learning and the attitude of some parents. In some neighborhoods, fighting is assumed to be a necessary way of life. Children are taught by their parents that in certain situations they must fight. We can avoid a conflict with parents by being sensitive to this reality and stating only that fighting among classmates will not be tolerated because it is bad for learning, not that fighting is bad in all cases.

Within our classroom, we can control the environment so that the need to fight is eliminated among our one group of students. Parents who wish their children to be in our classroom will have to modify their stance on fighting. Fighting and learning cannot coexist.

#### The point of the points...

The point of the point system is to provide us with an interim method of controlling class behavior while our students learn or relearn to control their behavior on their own.

The points cannot control children's behavior if the children experience no benefit from the control. If the school failures that have led some children to give up trying continue to persist, then no amount of points will change a child's attitude for long. Points can turn every child in our room into a willing child, but only if being willing is worth while. The rest is up to us.

### **Keeping Track of Student Learning**

#### Assessing more deliberately...

Blessed are those who know what they are doing, for they will know when they have done it. (Anonymous)

There is a purpose to each lesson that we teach. We assess to see if the purpose of our teaching has been matched by the learning taking place.

As we wander about our room observing our students at work, we are assessing continually. Every time a student makes a report or completes a graph or turns in an assignment, the report or graph or assignment is an assessment of what the student knows. Anytime we use a problem out the door (page 127), we are assessing what the child knows and planning the next day's lesson accordingly. The assessments we make at every step along the teaching path are an integral part of the lessons that we teach. We may also choose to assess more deliberately. The examples that follow are meant to serve as starting points for thinking about the assessments that we might create more deliberately. Assessment is already a part of every lesson that we teach and every homework assignment that we give. The examples reflect this reality.

The basic theme of assessment is:

Keep it simple. Keep it real. Ask what it is we want to know.

We can produce a correct answer to a problem without understanding what the answer means, but we cannot explain the meaning of the answer unless we understand. Asking for an explanation of the problem and the meaning of the answer is the simplest way to assess understanding.

## **Patterns and Connections:**

- 1. Look at home tonight for any A-B patterns that you can find. Write or draw or remember what you find so that tomorrow you can share your discoveries with everyone else in class. You can look for A-B or A-A-B or any other kind of patterns that you have around your home.
- 2. This set of numbers is called Pascal's Triangle.



Please identify and describe to a classmate any patterns that you can find in this arrangement. What would the next row of numbers look like? Explain why you think so.

#### **Beginning Number:**

- 1. Tell me everything you can about the number 5. How is the number 5 different from the number 4?
- 2. Find as many examples of five as you can at home tonight.

# Sorting, Classifying, Expanding Language:

- 1. How are any two items alike? How are they different? Tell me as many similarities and differences as you can.
- 2. How are you and your best friend alike? What are your differences?
- 3. How are cats and dogs alike? How are they different? Plants and animals? Cars and trucks?

#### Geometry, Shapes, Relationships and Constructions:

- 1. What kind of shapes are the most common in your home? How many examples can you find of each different shape?
- 2. What things in your home have symmetry? Make a list to bring to class to share.
- 3. Where are there tessellating shapes? Make a list of all you find.
- 4. How many different kinds of angles can you find at home? You can find 90° angles easily. Can you find angles of 80° or 100°? Would using your protractor help?

#### **Beginning Addition and Subtraction:**

- 1. What are all the ways that numbers can add together to make 5? How do you know you have found every way there is? Are there more or fewer or just the same number of ways to make six?
- 2. When do you or other members of your family use adding or subtracting at home? Keep a list of the problems that you find.

# Graphing, Probability and Statistics:

1. Graphing is the assessment. What questions do our results tell us we should ask next time?

# Measurement, Estimation and Time:

- 1. When does your family use measuring at home? What kinds of measurement to they make?
- 2. Plan and draw an alternative arrangement for the inside of our classroom and all the furniture in it. Give reasons for the changes that you suggest. You may use graph paper and coordinates if it helps you make your drawing clear.
- 3. Make a balance that will weigh things accurately.
- 4. What weighing devices do you have at home? How do you think they measure weight? Do they work the same or differently from your balance?
- 5. Design and make a device that accurately measures a period of time in seconds or minutes.

6. When do you or your family use estimating at home?

# **Beginning Multiplication and Division:**

- 1. How far can you fill in a 10-by-10 matrix in base ten from the multiplication patterns that you know? Describe the patterns that you use.
- 2. When do you or other members of your family use multiplication or division at home? Keep a list of the problems that you find.
- 3. Your little sister is just beginning to learn about multiplication in school. She doesn't understand what 4 x 3 = 12 means. How would you explain it to her? What materials, if any, would you use to help you with your explanation?

#### Fractions, Ratios, Money, Decimals and Percent:

1. The figure below represents 1/4 of a whole shape.

#### (illustration 16-0-2)

(Drawing of a piece of graph paper four squares by four squares.)

Create three possible whole shapes from which this shape might have come. Explain your reasoning. (This same kind of problem can be modified for decimals or percent.)

- 2. Create three different figures with different shapes that have the same area as each other. Explain how you know your three drawings have areas that are the same. (The level of students' sophistication determines the paper used to draw the shapes. Shapes drawn on graph paper offer squares as a reference points for proofs. Students who draw their three shapes on paper with no squares or lines will have to figure out the reference points for themselves.)
- 3. When do you or other members of your family use fractions or decimals at home? Keep a list of the problems that you find.
- 4. Write down what you have learned about fractions so far.
- 5. Why is 1/2 + 1/4 not equal to 2/6?
- 6. Make a list of all the equivalent fractions that you can think of that exist in real situations.
- 7. A friend of yours, who just moved to the United States, must ride the bus to and from school each day. The bus ride costs 50 cents. Your friend must have the exact change. Her problem is, she does not understand our money. Draw or write something on a sheet of paper that would help your friend find the right coins to give to the bus driver. Would you include pennies on your chart? Be sure to organize your paper so it is clear and helpful to your friend.
- 8. Can you find the height of something too tall for you to measure if you can measure its shadow?
- 9. Make a rate table for the miles traveled on each gallon of gas for your family car.
- 10. The bill for your family's dinner is \$38.40. Your parents want to leave at least a 15% tip. How would you suggest they figure out the tip and the total amount they will have to pay?

#### **Advanced Addition and Subtraction:**

- 1. You are tutoring in the second-grade classroom. The child you are teaching asks you: "Is 5 + 29 equal to 529?" What would you say and how would you explain your answer?
- 2. How would you explain to a new student in our class the meaning of hundreds, tens and ones in place value? What does place value mean anyway?
- 3. You want to teach your little brother how to subtract two-digit numbers from two- or three-digit numbers. What would you say? Give examples of the materials and problems you would use.
- 4. With your partner(s), design an activity that will help everyone else in class understand how large one million is.

### Advanced Multiplication and Division:

- 1. If the length and width of a rectangle are each doubled, what happens to the area? Does the same thing happen regardless of the size of the rectangle?
- 2. How would you explain to a friend how to multiply large numbers? What might you tell your friend if he or she asked if there was a point to multiplying big numbers, or if that kind of multiplication was used only in school?
- 3. Here is a division problem for your group to solve (a different problem for each group). Working with your group, create a poster that shows how you solved your problem and how you proved your answer. You may use calculators, but calculator answers do not count as proof. Because a calculator cannot think, it cannot prove the answers that it finds. Add to your poster the kinds of real situations the numbers in your problem might represent.

#### Algebra:

- 1. When is algebra used? Keep a list of all the examples that you find.
- 2. As you count the swings of the pendulum, make a coordinate graph for the data that you collect. Which two numbers would you graph? Use your graph to predict when the pendulum's swings will stop.

Note: If our students do not know the two numbers that are the coordinates, we can suggest they count the number of swings in a 30-second interval, then wait a minute and count for 30 seconds again. Each number counted is one number to be graphed. The number of the interval is the other number in the coordinate pair.

### Any real situation:

How students draw the math from any real situation is also an assessment of what our students understand.

# An ice cream sale at school

Flavor	Bars ordered	Bars sold
Chocolate	375	284
Vanilla	125	119
Strawberry	250	203
Orange	100	74
Lemon	100	56
Cherry	50	50

- 1. What kinds of questions might we ask that would assess what our students understand of math?
- 2. Because we sold more chocolate than any other kind, should we sell only chocolate next time? Do you agree or disagree with this statement? Justify your opinion.
- 3. How could we find out in advance the kinds of ice cream we should order?
- 4. How much did the ice cream cost? How much did we gross and net from the sale? What might we do to net more from the sale next time?

#### A pending field trip

- 1. When we go on our end-of-school-year trip to Wonderland Amusement Park, can we plan our playing time before we arrive? Here are pamphlets that include the schedule of all the events and the location of all the rides. We will be at the park from 10:00 a.m. to 3:00 p.m. See if you can use the pamphlets to plan what you might do while you are there.
- 2. If you think of information that you might need that is not contained within the brochures, we can make a list of what you want to know and call the park. We can also use anyone of us who has already been to Wonderland as resources.

#### Portfolios...

What is a portfolio? Physically, it can be just about anything: a large folder, a binder, a box, a student journal, a stack of papers in a file cabinet, individual student cubbyholes. Educationally, its purpose is more specific than the container in which it is housed. A portfolio is a means of gathering evidence of student learning successes throughout the year or years each child spends in school.

A portfolio is a break with the letter-grade tradition of the past. Letter grades compare students to one another, to the detriment of the students who do not receive the higher grades. Portfolios give every child the same opportunity for success that each child had before his or her school life began.

The more years a child has spent in school, the more apt the child is to ask: "Will this be on the test?" Portfolios shift the learning emphasis from memorizing for the test to problem solving and writing. Tests measure parrot-like responses. Portfolios include examples of problem-solving strategies and mathematical communications. Portfolios help us shift our teaching focus from training parrots to training thinkers and communicators.

If we view learning as a never-ending journey, then a portfolio is a series of snapshots we take along the way. The snapshots may be just for the year our students spend with us or, if our teaching goals match the objectives of other teachers in our school, portfolios can become a year-by-year history of the child's school experience.

What goes in a portfolio? What we and our students choose. Selected products of our assessments may be in portfolios. Work that students produce that we or they think reflects the learning they have done, the creativity and inventiveness of our students' minds, and work that students favor may also find a home in the portfolio.

How might we decide more specifically what to include? We can ask ourselves:

Do we know what it is we wish our students to learn this year? Can we tell when they have learned it? Can we explain to our students our learning goals? Can our students show or tell us and themselves what they have learned? What pictorial or written records of learning do we wish our students to provide?

As we and our students collect the evidence of their knowledge, we keep the evidence in portfolios.

#### A portfolio example...

4	6	8	7
<u>+5</u>	<u>+4</u>	<u>-3</u>	<u>-2</u>

Teacher: Here are four addition and subtraction problems. Create stories to go along with each problem. Include the answer to the problem within your story. You may use your spelling notebooks if you need help in writing a word.

The students are told when a problem or a project will be included in their portfolios.

# Teacher: Once we have reviewed your stories in class, I will collect and edit them for spelling and punctuation. Then you may make final copies for inclusion in your portfolios.

The process of finding solutions to problems is:

Problem solve. Prove the solution(s). Record the solution(s) and the proof.

The process of preparing solutions for inclusion in portfolios is:

Record the problem, its solution and its proof through pictures or through writing. Share the record with fellow members of the class. Modify the recording as necessary from the feedback received through sharing. (Any teacher editing comes in here.) If the recording includes writing, rewrite as necessary with spelling and punctuation changes. Add the modified recording to the portfolio.

Portfolios are meant to be shared with classmates, teacher and parents. The teacher-classmate sharing takes place in class as students are preparing the work. The modified or rewritten work is readied for family sharing at parent conference time or open house or any other viewing times that occur.

Learning rates are as different as children are from one another, and letter grades attach labels to these differences. Portfolios provide students the opportunity to evaluate their abilities and measure their progress, without having to compare themselves to every other child in the class. Portfolios help every child keep believing what we as teachers know is true: Every child in our room is capable of learning. No excuses offered. No exceptions made.

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