

# TEACHER'S MANUAL



**An Interdisciplinary Instructional Delivery System**

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# CHAPTER 1: INTRODUCTION

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TEAMS (Technology Enhancing Achievement in Middle School) is an innovative and exciting instructional delivery model for active learning through technology-rich, interdisciplinary instruction. The disciplines of mathematics, science, social studies, and language arts are linked through unit themes geared to the interest of middle school students.

As a TEAMS teacher, you will have the opportunity to join the ranks of those in the forefront of middle level education. TEAMS materials and training will provide you with the information and skills needed to . . .

- actively engage your students in learning
- use technology effectively in instruction
- make connections across disciplines, and
- work efficiently and effectively as a member of an interdisciplinary team.

## Why TEAMS Was Developed

"Middle grades are the 'last best chance' to put students on a path to a successful life" (Hill, 1993). TEAMS provides a way for you, as teachers, to take advantage of this "last best chance."

TEAMS was developed to incorporate technology and active learning in the classroom. TEAMS was also developed to offer theme-based interdisciplinary connections between science, mathematics, language arts, and social studies.

In TEAMS, technology is an integral part of the learning environment and an important method of curriculum delivery. Technology provides high quality learning time that motivates, provides feedback and guides students on the correct learning path. Today's students are eager to become technologically literate so that they can relate to electronic media in their fast-paced world outside the classroom. TEAMS offers an organizational model for the smooth and effective inclusion of technology in your instruction.

Across the nation, an active "Middle School Movement" is currently producing many new ideas and specific recommendations to restructure junior highs into middle schools, rethink the curriculum, reorganize the classroom and redefine the role of teachers. TEAMS can help turn this new research into reality in today's middle schools.

Important findings from national reports like *Turning Points* (1989) from the Carnegie Council on Adolescent Development have been incorporated in the TEAMS model. *Turning Points* (pages 38 - 40) stresses the importance of forming teachers and students into teams in order to . . .

- achieve academic and personal goals
- reduce the stress of anonymity and isolation on students
- enable students to sense consistent expectations from teachers
- provide a support group for teachers and eliminate departmental isolation

- encourage connections across disciplines, and
- ensure coordination across all aspects of the core instructional curriculum.

In addition, TEAMS specifically incorporates ideas from the current middle school curriculum reform movement. The selection of themes as the focus for the curriculum and the building of interdisciplinary thematic units has followed guidelines for best practices from the National Middle School Association (Beane, 1990) and the Association for Supervision and Curriculum Development (George, et al, 1992). Themes such as *transitions*, *caring*, *identities*, and *conflict resolution* come directly from the kinds of personal adolescent concerns which can be expanded to more global perspectives with careful interdisciplinary development.

## **Purpose and Strategies of TEAMS**

The purpose of TEAMS is to enhance the traditional instructional approach employed in many middle schools with a new instructional model. The TEAMS model will help middle school students become successful learners. This is accomplished through seven key strategies.

### **Strategy 1. Restructure the school and curriculum to reduce fragmentation.**

The TEAMS model focuses on faculty teaming and interdisciplinary curriculum units. These units include specific subject area skills, perpetual skills which transcend all subject areas, and nonacademic personal development issues.

### **Strategy 2. Empower teachers to reduce isolation.**

TEAMS teachers' roles are enhanced by working in collaborative teams. In the classroom the teacher becomes a guide and facilitator, making interdisciplinary connections and supporting the overall theme along with other team members.

### **Strategy 3. Empower students to reduce passivity and frustration.**

The TEAMS model is designed to support diverse learning styles and the unique characteristics of middle school students. TEAMS provides students with opportunities for choice, encourages goal-oriented behavior, and teaches personal responsibility.

### **Strategy 4. Establish positive learning environments to reduce failure.**

TEAMS encourages cooperative learning where students support one another, yet are individually accountable for meeting learning objectives. Competition which sorts students into "winners and losers" is discouraged. TEAMS classrooms are success-oriented, with a risk-free climate where mistakes become opportunities for learning rather than signs of failure. Students receive positive recognition for their efforts as well as their achievements.

### **Strategy 5. Increase motivation and time-on-task to reduce off-task behavior.**

TEAMS students have frequent access to classroom technology for guided discovery and practice. Hands-on activities at the TEAMS stations encourage active learning and engage students to increase time-on-task. TEAMS fosters self-directed, responsible behavior.

### **Strategy 6. Ensure practicality to reduce barriers to innovation and change.**

The TEAMS model provides training and supporting materials to ensure that it works in the real world of today's schools. Classroom teachers were integral members of the design team which developed and piloted TEAMS. The TEAMS model is adaptable to your existing curriculum and incorporates the textbooks and technology available at your school.

### **Strategy 7. Ensure equity to reduce frivolous use of and unequal access to technology.**

In TEAMS, technology is a key instructional station. Consequently, there is equity of access to computers for all students, not just the "gifted" or "remedial" students. The TEAMS model is designed to work effectively with all students regardless of gender, background, or previous academic success.

## **Philosophical Foundations of TEAMS**

The TEAMS model is based on several philosophical beliefs about education. Among the most important of these is the notion that a good education is one where there is involvement, relevance, and thinking (Glasser, 1975). The following conditions must be present for this to happen:

### **1. Active Learning**

Students must be actively involved in the learning process; therefore, instruction is presented with a variety of instructional media and methods. In addition, instruction draws upon students' needs, interests and experiences in order to increase their involvement. Technology, the medium of expression for today's students, plays a prominent role.

### **2. A Supportive Learning Environment**

Teachers create a supportive learning environment that fosters inquiry and creativity. A positive tone is maintained and students are frequently praised and encouraged for effort and cooperation as well as achievement.

### **3. Interdisciplinary Curriculum, Activities and Materials**

The relationships among the various subject areas must be made evident to students, and the relevancy of the skills taught in those subject areas must be made clear.

## How TEAMS Was Developed

After months of research and planning, a team of middle school teachers and TEAMS developers met to lay the foundation for the thematic units designated in the *Planning Guides*. The themes were selected, and then the matching of topics and skills to the themes began.

First, individual teachers listed topics from their subject areas which were logically connected to the themes. Contriving connections was forbidden! Next, the teachers met as a team to discuss their topics and identify overlapping or related areas of interest and study. In several instances, teachers realized that a simple resequencing of already-required coursework would quickly lead to coordinated teaching. For example, the science and social studies teachers decided to coordinate their study of weather and weather mapping, and the mathematics teacher offered to work on the calculations necessary for weather reporting during this time.

Once the team agreed on a list of general topics of study and the order of presentation, a curriculum map was created so that individual teachers could develop specific skills and objectives for the overall thematic units. Finally, teachers identified station activities to be used in the classrooms.

We continued to ask ourselves several important questions throughout the thematic unit development process.

- What is it that we really want students to know when they have finished this unit?
- Do students have opportunities to make connections between the theme and each content area and among the content areas?
- Is there time for reflection on the theme?
- Do these topics and activities truly represent interdisciplinary teaming?
- Are diverse learning styles accommodated?
- Do students have opportunities to make choices, be self-directed, and take responsibility?
- Is technology naturally integrated in the course of each week (as opposed to using technology for its own sake)?

These questions maintained our focus and provided opportunities for discussion and reflection on the nature of thematic instruction and interdisciplinary teaming. These same questions and processes should guide TEAMS teachers in planning lessons for your students.

## References

- Beane, J. (1990). *A Middle School Curriculum: from Rhetoric to Reality*. Columbus, OH: National Middle School Association.
- Carnegie Corporation. (1989). *Turning Points: Preparing American Youth for the 21st Century*. Washington, DC: Carnegie Council on Adolescent Development.
- George, P., C. Stevenson, J. Thomason, and J. Beane. (1992). *The Middle School - And Beyond*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Glasser, W. (1975). *Schools Without Failure*. New York: Harper & Row.
- Hill, M. (1993). "Technology and the New Middle School, Ensuring Student Success." *Electronic Learning*, 12 (5), 20-27.

## Additional Reading

- Boser, R.W. & Gallo, D. (1995). *Pyramids to Space Stations: Interdisciplinary Connections Through Technology Education*. *Middle School Journal*, January, 1995, pages 41-46.
- Butzin, S. (2005). *Joyful Classrooms in an Age of Accountability: The Project CHILD Recipe for Success*. Bloomington, IN: Phi Delta Kappa.
- Harmin, M. (1994). *Inspiring Active Learning, A Handbook for Teachers*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Jacobs, H., Ed. (1989). *Interdisciplinary Curriculum: Design and Implementation*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Lounsbury, J., Ed. (1992). *Connecting the Curriculum Through Interdisciplinary Instruction*. Columbus, OH: National Middle School Association.
- Merenbloom, E. (1991). *The Team Process, A Handbook for Teachers*. Columbus, OH: National Middle School Association.
- Peck, K.L. (1995). *The R.E.A.L. Initiative (Reinventing Education for Active Learning)*. 270 Chambers Building, The Pennsylvania State University, University Park, PA 16802.
- Ridley, D.S., McCombs, B, & Taylor, K. (1994). *Walking the Talk: Fostering Self-Regulated Learning in the Classroom*. *Middle School Journal*, November, 1994,

pages 52-57.

Stevenson, C., J. Carr, Ed. (1993). *Integrated Studies in the Middle Grades*, "Dancing Through Walls". New York, NY: Teachers College Press.

Whinery, B.L. & Faircloth, C.V. (1994). The Change Process and Interdisciplinary Teaching. *Middle School Journal*, November, 1994, pages 31-34.

Zorfass, J. (1991). *Make It Happen, Inquiry and Technology in the Middle School Curriculum*. Newton, MA: Education Development Center, Inc.

## CHAPTER 2: OVERVIEW OF TEAMS

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This chapter provides a brief overview of TEAMS, which is a synthesis of effective instructional practices. There are 20 Essential Components that comprise the TEAMS model. These essential components provide a framework from which you will enhance your curriculum. Subsequent chapters in this *Teacher's Manual* describe the components in detail.

### Linking Subject Areas Through Unifying Themes

TEAMS presents a different mode of operation from the traditional junior high/middle school. A team of teachers (mathematics, science, social studies, and language arts) and up to 175 students (averaging 25-35 per five-period class) form a team. Each teacher's subject area content is linked by unifying themes. In addition, perpetual skills (such as following directions, vocabulary development, etc.) are imbedded throughout all subjects, thus producing a second level of coordination.

The development of academic skills necessary to a basic education are incorporated in the learning station activities. Consequently, the TEAMS materials include the specific skills required by most local and state curricula and measured by standardized tests. Skills are cross-referenced for ease of documentation.

### Integrating Technology into the Curriculum

Each of the TEAMS classrooms becomes a focused learning center, equipped with appropriate computer hardware, sufficient software, and Internet connectivity to support extensive exploration in each subject area. Other technology such as a projector, CD's, SmartBoards, calculators, and hand-held computers may also be incorporated where feasible.

The social studies classroom, for example, may use technology to encourage interactive discussion, analysis, and reflective criticism. The science classroom can use online PowerPoint demonstrations and computer probe ware to support investigations and inquiry. In the mathematics classroom, computers and manipulative materials will be used to explore concepts, solve problems, and manipulate data. The language arts classroom will support the full writing process and develop critical reading skills with the use of computers and printers.

### Utilizing Multidimensional Work Stations

Typical classwork in TEAMS involves some whole group instruction and a great deal of individual, cooperative, and small group learning at learning stations. The instructional focus is on depth, rather than breadth. Each classroom contains four learning stations so that students may explore a common topic using several modalities.

The **Technology Station** should have appropriate educational technology suited to each content area. For example, the language arts classroom should have at least 4-6 computers and at least one printer to support the writing process. Four computers should be available in mathematics,

science and social studies classrooms. Projectors also enhance the classrooms, especially in science and mathematics. Online resources may also be used for research and student multimedia productions. Students use the technology regularly in each classroom.

The **Text Station** contains content area textbooks, printed materials, and paper and pencil work. The two **Exploration Stations** include hands-on activities such as art projects, math manipulatives, globes, and educational games. Finally, there is a **Teacher Station** for small group and individual instruction. Taken as a whole, the classroom is designed to accommodate all learning modalities.

## Providing Students with Strategies for Self-Directed Learning

Through a systematic student orientation, students are trained to stay on task while working independently, to move efficiently to various learning stations, and to take responsibility for solving work-related problems. Integral to this orientation is learning the purpose and use of the individual student *Work Logs*, where students record information about their daily classroom practice, note homework assignments and test dates, express their opinions, and set and assess unit goals.

Teachers must clearly communicate specific learning strategies to the students, and students must learn how to get help if the teacher is not immediately available. TEAMS' students refer to station *Task Cards* as reminders of appropriate procedures for independent work at the learning stations. The students are encouraged to develop self-help skills. Peer coaching and collaborative problem solving are also encouraged. Cooperation should be encouraged and rewarded.

## A Typical TEAMS Nine-Week Unit

What is a typical TEAMS unit like? Teachers meet weekly to plan coordinated activities using the *Teams Planning Guide*. This planning assures interdisciplinary connections so that students can see the relationships among the disciplines and connect what they are doing in each class. It also helps coordinate homework, tests, and vocabulary assignments so that students are not overloaded each evening. Individual planning then takes place to make lesson plans and prepare station activities and *Task Cards*.

During each unit, there will be several station rotation cycles lasting one to three weeks. The cycle begins with whole group instruction where the teacher presents information and gives directions for the subsequent station activities. This lecture/discussion format may take one or several periods, depending upon the complexity of the topic.

Then the students begin the station rotation cycle. They work at the various learning stations for several more days to complete the activities assigned at each station. *Task Cards* and notes from their *Work Logs* serve as reminders from the teacher's lecture. Students usually work at the stations for 3-5 days.

When all station activities have been completed, the process ends with whole group discussion and assessment. This provides opportunities for students to reflect upon their work and

make connections with the unit theme. Teachers have an opportunity to make a final assessment of students' knowledge of the subject content and application of skills.

Chapter 4 in this *Teacher's Manual* provides detailed information on planning and assessment. Chapter 5 provides detailed information on station rotation procedures.

## Scheduling

TEAMS can be implemented using the standard 50-60 minute class period used in most middle schools. Homeroom, physical education, and exploratory periods (band, art, foreign language, etc.) can also be accommodated. The important criteria is that the teachers in each TEAMS team share a common team of students and have a common planning period.

You are encouraged to explore alternate scheduling to maximize the benefits of the TEAMS approach and eliminate fragmenting students to non-TEAMS homerooms. For example, increasing class size enables you to increase instructional time and reduce the number of instructional periods from five to four. Most teachers find that the use of technology and the active learning station approach enables you to effectively accommodate more students than in a traditional classroom. Block scheduling and innovative schedules such as the Copernican Plan lend themselves very effectively to the TEAMS model. The Copernican Plan divides the school year into trimesters, rather than semesters, with fewer courses covered for longer blocks of time each school day. See the "Additional Reading" section at the end of this chapter.

In addition to the academic class periods, time should be set aside each week during a homeroom period to engage in non-academic activities related to the unit theme. For example, in the "Identities" unit, discussion might focus on how students their age attempt to establish their own personal identities and the problems they encounter. Personal development discussions and activities enable students to reflect on the relevance of what they are learning in school, and to do so outside the boundaries and pressures often associated with "regular" classroom activities. Suggestions for Personal Development activities are found in the *TEAMS Planning Guides*.

## Getting Started

This *TEAMS Teacher's Manual* provides specific guidelines for implementing the TEAMS system. You will also receive intensive inservice training and ongoing support. The inservice training includes specific information about classroom management techniques, instructional and assessment strategies, collegial team strategies, individual subject-area strategies, and ideas for technology integration.

Students will begin the program with a three-week orientation during the first unit. Chapter 3 provides detailed information about organizing your classroom and conducting the student orientation.

## Instructional Materials

The TEAMS *Planning Guides* (one for each subject) offer a wealth of teaching tips, software correlations, related websites, and station activities in each of the four content areas. The guides are organized into nine-week units. Subject content across the four areas is coordinated with the common unifying theme. Reading and problem-solving strategies, writing, critical thinking, personal development issues, and academic skill development are embedded throughout. Mandated curriculum frameworks, academic performance standards, and other skill requirements are correlated with the guide units.

Learning activities are clearly explained to the students through the use of *Task Cards* which specify assignment requirements at each learning station. Teachers must assure that the assignments are appropriate for the students' levels of intellectual, academic, and social development.

Students use the *TEAMS Work Log* as an organization tool. It consists of two parts. The *Work Log Folder* is used as a subject divider in the student's notebook and also can become a portfolio of saved work at the end of the unit. The *Work Log Station Rotation* inserts help students set goals, take notes on station assignments, schedule homework and test dates, and complete a self-evaluation at the end of each station rotation cycle. The *Work Log* also facilitates communication with parents.

Chapter 4 in this *Teacher's Manual* provides detailed information on using the Planning Guides. Chapter 5 provides detailed information about use of the Work Logs.

## **The Role of the Adults in TEAMS**

In TEAMS the teacher's role shifts from lecturer/dictator to coach/facilitator. Much of the time devoted to large group instruction or passive seatwork in traditional classrooms will be used for station activities in TEAMS. This offers enhanced opportunities to circulate and interact with students on a one-to-one basis.

Moreover, there is an increased emphasis on cooperative instructional planning. A TEAMS teacher must function as a multi-disciplinary colleague rather than a department member. Becoming part of a professional team to share ideas and support one another is one of the greatest benefits of being a TEAMS teacher.

The principal (or an administrative designee) must provide leadership and ongoing support. The principal should make frequent classroom visits to keep abreast of the program. The principal should attend all training workshops to become well-versed in TEAMS methods, goals, and objectives. Facilitating communication with parents, district office staff, and the community at large is also an important responsibility of the principal.

The principal should also provide adequate support and resources so that the teachers can function effectively. This may include designating a trained "trouble shooter" to correct technical problems, or providing classroom assistance in the form of a resource teacher, substitute, or classroom aide when necessary.

Parents of TEAMS students are, of course, vital to the success of TEAMS. Parents should attend an orientation before the implementation of TEAMS and they also should attend individual conferences throughout the school year. They should monitor their child's *Work Log* notebook and discuss work and progress together. Parent classroom volunteers should be encouraged.

Chapter 6 provides detailed information about the roles and responsibilities of the teachers, administrators, and parents.

### **Additional Reading**

Canady, R.L. & Rettig, M.D. (1993). Unlocking the Lockstep High School Schedule. *Phi Delta Kappan*, December, 1993, pages 310-314.

Watts, G.D. & Castle, S. (1993). The Time Dilemma in School Restructuring. *Phi Delta Kappan*, December, 1993, pages 306-310.