Guide Book

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- UCLA Center for the Study of Evaluation
- University of Colorado
- NORC, University of Chicago
- LRDC, University of Pittsburgh
- The RAND Corporation
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SECTION 1: INTRODUCTION

What should our young people know and be able to do by the time they graduate from high school? Changes in the economy and workforce and the advent of new technologies have significantly altered how schools must prepare our young people for a productive and satisfying future. Having minimum expectations for most students and high expectations for only a select few is no longer an acceptable position for our education system -- both for the sake of individuals and for the sake of our society as a whole. All our young people need to become literate in core content areas and to be eager, lifelong learners who use their minds well to understand and resolve the many complex issues and problems that face them.

To help our young people reach these goals, the LALC Design calls for high and explicit expectations or "standards" for what students should know and be able to do by the time they graduate. Reaching consensus on and being explicit about our goals for student learning will focus our efforts to enable students to achieve. All stakeholders should have input into the standards so that the expectations are fair and relevant for the entire learning community. It is also important that all stakeholders develop a sense of responsibility for helping students attain the goals. Parents, faculty, staff, community members, and students themselves -- all will need to think about what they can do differently or better to help students achieve.

Agreeing on a common set of expectations for what students should learn in school helps create a more coherent and consistent flow of education across grade levels and within departments. These standards should be used by teachers in planning their curriculum, instruction, and assessment. Standards help guide the choice of concepts and content that teachers strive to teach, which textbooks and curricular materials schools and districts purchase, which teaching strategies and methods prepare students for success, and which assessment practices effectively measure what students have achieved. Moreover, student progress towards high standards can be monitored with high quality assessments and the results used along with other important information to evaluate the growth of individual students as well as the effectiveness of school programs.

This guidebook presents a common shell of expectations for all Learning Centers, known as the LALC Standards for Student Learning. New sites may customize the Standards somewhat, but the general scope and intent should remain intact. Schools might develop a timeline for implementing the standards that emphasizes some standards or content areas before others to reflect local needs.
The guidebook also describes a process for incorporating the Standards in the life of a Learning Center through building commitment to high standards, prioritizing site goals, developing an integrated approach to curriculum, instruction, and assessment, creating a system of incentives and stakeholder development, improving classroom practices and school policies, and monitoring progress. The guidebook also provides materials useful in implementing a standards-based approach to schooling, describes possible obstacles that may occur and suggestions for dealing with them, and lists a variety of helpful resources.

Learning Centers are encouraged to supplement the guidebook over time with their own examples of standards-based learning activities, student work, and scoring rubrics. A rich array of examples can help teachers, students, and parents know what to strive for.

The LALC Guidebook on Standards, along with the LALC Guidebook on Assessment, offers a foundation for fruitful stakeholder discussions of school goals, articulation of curriculum across grade levels, coherent standards within departments or disciplines, interdisciplinary goals, and grading policies and practices.

**What Are the LALC Standards for Student Learning?**

To provide an effective guidepost for students, parents, and educators, the LALC has developed eight Standards for Student Learning (see Table 1).

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<th>Table 1</th>
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<td>LALC Standards for Student Learning</td>
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<td><strong>1. Literacy</strong></td>
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<td><strong>2. Numeracy</strong></td>
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<td><strong>3. Identifying and accessing resources</strong></td>
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4. Important knowledge
LALC students possess, appreciate, and use (beyond simple recall) knowledge of important concepts, terms, vocabulary, modes of inquiry, operations, relationships, and systems within and across the disciplines of science, math, language arts and literature, social sciences, technology, physical education, and the arts.

5. Complex thinking
LALC students apply creative and complex planning, thinking, reasoning, and/or problem solving skills to authentic issues, problems, or systems within science, technology, math, language arts and literature, social sciences, the arts, physical education, and interdisciplinary issues. These complex thinking skills include designing, prioritizing, synthesizing, analyzing, interpreting, hypothesizing, predicting, generalizing, evaluating, and making important connections within and across disciplines (i.e. interdisciplinary thinking). Students understand what they are asked to do; can define the problem, issue, or request; can identify relevant information and resources; can outline approaches or solution strategies and carry them out successfully.

6. Communication
LALC students communicate information, knowledge, strategies, and personal opinions or expressions to a variety of audiences for a range of purposes and occasions. They speak and write well, and can be expressive as well as clear and concise, with control of the conventions of writing. They also communicate their ideas effectively in other modes, such as numeric, symbolic, graphic, video, and artistic. They employ good listening and speaking skills as they participate effectively in public discourse.

7. Intra- and interpersonal skills
LALC students work well both independently and collaboratively in a variety of authentic settings, with people of diverse backgrounds, in a range of roles (e.g. team member, leader, teacher, advocate, mediator). They use metacognitive skills to monitor their own process and behavior, exhibit self-control, evaluate progress (self-assess), and set personal goals.

8. Habits of mind
LALC students display responsibility, self-esteem and confidence, integrity, eagerness and curiosity, and respect towards learning, others, and self. They see themselves as continual learners, appreciate the value of knowledge in the various disciplines, and show personal investment and pride in their work. They use their knowledge and skills as active, constructive participants and responsible decision-makers in our democratic society and as citizens of the world.

There are many different ways in which important goals for student learning could be conceptualized. States and districts who have worked in this area have adopted a variety of approaches. Some people prefer greater emphasis on discipline-based learning. Some prefer a long list of more precise standards that resemble behavioral objectives. The LALC Standards for Student Learning presented here is a brief summary of eight major goal areas. The number of learning goals in the LALC Design was purposely kept small so that they might be all the more powerful in their impact on schooling. We did
not wanted them to sit on a shelf, unused, like so many other education documents. We wanted all stakeholders to be able to remember, understand, and use them in the decisions they make that affect student learning.

The LALC Standards were developed by a collaborative team of teachers, administrators, other school staff, parents, and university learning and assessment experts in Los Angeles. In the absence of well-defined and widely accepted "world class standards," the LALC team relied on the most current and nationally recognized statements available about what students should know and be able to do. These documents included the California curriculum frameworks, drafts of the national curriculum standards documents developed or being developed in math, science, language arts, history, and geography, and the SCANS Report. These resources reflect contemporary expertise about the nature of the disciplines, cognitive theories of learning, and futurists' and business experts' visions of the skills and knowledge that will be required of citizens and employees in the foreseeable future.

The literature on goal setting suggests that setting standards which appear quite difficult but not impossible results in higher achievement than setting easily attainable goals; hence, the LALC standards are reasonably high, progressive expectations for performance. Standards can be revised upwards as a school's program gains strength and students begin to reap the cumulative benefits of remaining in it for several years.

How Do Learning Centers Use the Standards?

The LALC Standards, developed by the first two LALCs, provide a strong common foundation for each Learning Center -- a starting point for articulating their vision of what their students should know and be able to do. New Learning Centers should go through a process of review, interpretation, and application to make these standards their own. In fact, this cyclical process of reviewing and re-prioritizing goals and monitoring progress is the defining feature of a self-renewing school. As the process of involving new stakeholders, revisiting priorities, examining student work, and revising standards is never over, each Learning Center is a center for ongoing inquiry and reflection on student achievement, program goals, and classroom practices.

Each LALC will have need to have a team, representing all stakeholders, who is responsible for overseeing this process and helping all stakeholders to understand the standards and apply them within their own areas of responsibility for student learning. The following section describes the process each Learning Center should use.

SECTION 2: Incorporating Standards in the Life of a Learning Center

Step 1. Build commitment and engagement. Stakeholders build commitment among themselves to support widespread student achievement of high
standards. They obtain professional development on an overview of standards and assessment and proceed to examine available data on how their students have been performing over the past several years. They use this data together with anecdotal data from teachers and parents to identify areas in which improvement is most needed and to build a consensus to work on these areas.

**Step 2. Review, prioritize and reconcile goals/standards.** They examine the LALC Standards for Student Learning and set priorities according to the needs they discovered in Step 1. Which content areas or standards are perhaps of greater importance to your students or parents currently? It is often helpful to begin reform in one or two areas, such as language arts, or complex thinking and inter- and intra-personal skills. Once the school understands how to work together on a project of this size, it can more easily address additional areas. Trying to do everything at once tends to be overwhelming and burns out the relatively few people willing to put in the many hours it takes to make major change.

If the school has been involved in other reform initiatives involving standards, the team needs to reconcile the two sets of standards to form a single coherent set of goals and priorities with which everyone will become familiar.

**Step 3. Make standards concrete and explicit.** The team encourages widespread participation by many stakeholders in an examination of the LALC Standards for Student Learning and examples of the kinds of tasks and activities in which students should be engaged. It is helpful to work in groups by subject areas and grade levels (e.g. early elementary math) to expand standards to include discipline-based or interdisciplinary student learning objectives that are subsumed under the more general standard statements. The question is: what does "complex thinking" mean in early elementary math? (Examples of standards expanded by one of the Learning Centers are appended.)

Teachers, parents, and students are then encouraged to find examples of assignments and student work, from their own Learning Center if possible, to illustrate the standards and to deepen their understanding of what the standards mean. Stakeholders discuss what level of student work should be considered inadequate, sufficient, or exceptional -- what's “good enough?”

Out of these discussions can grow concrete illustrations of how the standards are to be interpreted: (a) the kinds of tasks or behaviors called for in the standards, (b) the dimensions of student work that are to be judged (with complete rubrics as they are developed) and (c) examples of student work to show the nature and range of student performances deemed adequate or exemplary. This array of materials, which could be shared via the Toolbox, will help teachers understand the standards better and be able to plan curriculum and assessment thoughtfully. (Examples of such materials collected by the first two Learning Centers are to be appended)

1Four or five distinctions could be made, but these three tend to be useful.
Sample assignments and student work also help students set goals, know what to study, know how to evaluate their own progress. They can help parents know what to expect of their children and how to support learning effectively.

**Step 4. Create a system of professional development, incentives and consequences.** The team should determine what stakeholders need to learn in order to fulfill their responsibilities to help students reach high standards of achievement, and they should work with the site management team to arrange for an ongoing program of stakeholder development to meet the needs. What incentives may be arranged so that stakeholders will take advantage of these learning opportunities?

The team also needs to discuss what consequences should occur when students do not achieve standards or make reasonable progress, and when other stakeholders (parents, administrators, teachers) do not do their part. They may select one or more scenarios to present to stakeholders for review and implementation. Stakeholders may be asked to commit themselves as mutually and personally responsible for student learning.

**Step 5. Help stakeholders apply standards and see benefits.** The team needs to help all stakeholders see what steps they can take so that students eventually achieve the standards that have been set. They will be more likely to be supportive when they also understand how using the standards to guide their actions will also benefit them as parents, teachers or staff, community members, and students. Some examples follow.

Teachers may work with consultants or master practitioners as needed to plan standards-based units with integrated curriculum, instruction, and assessment. They may need to revise their curriculum to include opportunities for students to achieve standards that received little previous emphasis. For example, teachers may increase opportunities for students to reflect on their work, evaluate it, and set some of their own future learning goals. Teachers may use the curriculum Template to document how their curriculum, instruction, and assessment will reflect the standards appropriate for their students.

Administrators and SBM council members can describe how policies will be adapted or revised to facilitate student achievement of standards. Administrators may change what they consider to be "good practice." For example, they may begin to realize that important learning sometimes requires a noisy environment as students create personal meaning by manipulating materials and sharing their ideas with others. Administrators may also need to be far more flexible in scheduling courses and teacher planning time than in the past.

Parents may change how they help their children with homework (such as asking the child to brainstorm how to solve a problem rather than the parent...
telling him what to do), how they talk with their child's teacher about his progress, or how they vote on site budget decisions. Parents can be asked to commit to facilitating their child's learning and acknowledge this contract through a checklist of ways they could help, e.g. help the student find time to do outside reading to achieve the literacy standard, encourage students to look for patterns in the world around them to achieve the numeracy standard, allow students to do science investigations at home to pursue the complex thinking standard.

Students can set goals for themselves regarding how they will work toward the standards (perhaps unit goals, term goals, and annual goals). Students may begin to see school in a different light as they appreciate the consistent focus on a few major learning goals directly tied to their future success, rather than a huge number of disconnected units or topics. They may begin to see, for example, that doing group work well has value for them as career-preparation -- and that it is not merely a convenient classroom control strategy for the teacher.

Community members may see that their support of school events, such as allowing employees paid time to serve on a review panel for senior portfolios or projects, may help students achieve at a much higher level and may benefit the community or business in a variety of ways as well.

Step 6. Monitor school progress and revisit priorities periodically. As a self-renewing school, the Learning Center community develops and carries out a plan to monitor student and school progress and to revisit school priorities periodically. Herman and Winters (1992) is a helpful resource. (expand this section)

SECTION 3: OVERCOMING BARRIERS

The standards setting process is complex and often brings to the surface long held beliefs about students, learning and teaching which can act as barriers to school reform. The specific barriers encountered will depend on the particular school site, but the barriers that follow have been encountered by schools seeking to answer the question, “What should our students know and be able to do at different grade levels?”

Barrier: Resistance of stakeholders to setting standards.

• Stakeholders are often inspired to make changes when they become aware that students are doing poorly. Therefore, it helps if the school has already analyzed student assessments and demographic data in order to assess the situation. Besides norm referenced test scores, this might include other indicators such as performance assessments, attendance, number of students taking more difficult classes, reading level, etc. (see Herman & Winters for ideas, p.91)
• When groups of teachers look at student work and grapple together with the question, “What is good work?”, they begin to see the need for school-wide and department-wide standards and are more willing to give up some individual classroom autonomy.

• It is essential to unite to solve important problems rather than lay blame on specific people or groups. Don't set up a system to hold just one set of stakeholders "accountable" without the others- or one that fails to hold anyone accountable.

• It is important to keep the focus of discussions on the standards and their implementation. It is best to acknowledge each barrier that is raised, while not letting obstacles such as inadequate library facilities or large class size be used to derail the standards setting process.

• Parents need to be involved in the standards setting process from the beginning so they feel invested in its success. If parents are involved in the setting of the standards, they will more likely be willing to commit to making changes at home, e.g. overseeing homework and school attendance, regulating television viewing, etc. They will also be more supportive of innovations at school such as integrated curriculum, banking time, or new assessments. It is helpful to provide child care and interpreters and to develop a core of parent leaders.

**Barrier: Insufficient time for meetings and professional development**

• Schools on a year round schedule are at a disadvantage because it is difficult for the entire staff to find common meeting time. While a representative team of stakeholders will oversee the standards process, the principal should arrange for two days for all the faculty to meet together by department to begin the work of expanding the content standards.

• Maintaining focus on the process of standards setting and implementation may require that other school issues be deferred temporarily.

• Adequate time needs to be scheduled for on-going professional development. For example, an elementary or department portfolio assessment group might meet weekly with an assessment consultant to review how to assess whether students are meeting a particular standard.

**Barrier: Inadequate support and resources to help stakeholders implement the standards**

• After the standards have been established and adopted, teachers will need sufficient professional development, planning time, and on-going
guidance in order to help students meet the standards set. Small group and individual help also needs to be provided for teachers as they rethink their instruction and assessment methods.

• Stakeholders need to feel that the goals and expectations set forth by the standards are reachable with hard work. Because more will be demanded of all stakeholders and because all stakeholders will be held accountable for improved student learning, appropriate materials and programs need to be provided. For example, early reading intervention in k-2 can prevent reading problems later on.

• In addition to committing adequate time, money, and resources for the implementation of standards, administrators will need to take a more active role to help teachers implement the standards in the classroom. For example, an administrator may need to spend part of each day in the classroom directly involved with students and teachers. All stakeholders respond more favorably to the whole process if they feel that the other stakeholders are full participants, sharing the effort and responsibility to help students do well.

Barrier: Student motivation, skill level, transience rate, English language proficiency

• Students also need to be included in discussions about standards, goals, and student work. Students become more motivated when expectations and criteria are made explicit in advance, and when they participate in defining their own learning goals and in evaluating their own work.

• Schools need to assess students and develop an efficient referral system so that students can receive help in a timely manner.

• Clearly, factors such as motivation, previous opportunity to learn, transience and language skills play an important role in student attainment of high standards. They should be seen as problems to solve collaboratively and creatively in order to help students learn better, rather than as a rationale for low expectations.
APPENDIX A: RESOURCES

DOCUMENTS FOR SETTING AND EXPANDING STANDARDS:

California Frameworks:
- Mathematics
- Science
- English-Language Arts
- History-Social Science

California Department of Education
Publicity/Sales Department
P.O. Box 271
Sacramento, CA 95812
(916) 445-1260

- Other frameworks you may be interested in:
  Foreign Language, Health, The Arts, Physical Education

National Standards Documents

History
- National Standards for United States History: 5-12
  Exploring the American Experience
- National Standards for World History: 5-12
  Exploring Paths to the Present
- National History Standards for K-4
  Reaching Out in Time and Space

National Center for History in the Schools
University of California, Los Angeles
10880 Wilshire Blvd., Suite 761
Los Angeles, CA 90024-4108
Fax (310) 825-4723

- Building a History Curriculum: Guidelines for Teaching History in Schools

National Council for History Education
26915 Westwood Road, Suite B-2
Westlake, OH 44145
(216) 835-1776
• Lessons From History: Essential Understandings and Historical Perspectives Students Should Acquire

    National Center for History
    Attention: Pamela Hamilton
    University of California, Los Angeles
    Moore Hall 231
    405 Hilgard Avenue
    Los Angeles, CA 90024-1521
    (310) 825-4702

Social Studies
• Curriculum Standards for Social Studies

    National Council for the Social Studies
    Whitehurst & Clark
    100 Newfield Avenue, Raritan Center
    Edison, NJ 08837
    (800) 683-0812

Civics and Government
• National Standards For Civics and Government

    Center for Civic Education
    5146 Douglas Fir Road
    Calabasas, CA 91302-1467
    (800) 350-4223
    Fax (818) 591-9330

• CIVITAS: A Framework for Civic Education

    Maxway Data Corporation
    225 W. 34th Street, Suite 1105
    New York, NY 10001
    (800) 683-0812

Geography
• Geography For Life: National Geography Standards 1994

    National Geographic Society
    P.O. Box 1640,
    Washington, DC 20013-1640
    (800) 368-2728

• Guidelines for Geography Education: Elementary and Secondary Schools
• K-6 Geography: Themes, Key Ideas and Learning Opportunities
• 7-12 Geography: Themes, Key Ideas and Learning Opportunities
Science

- **National Science Education Standards**
  It is available now in draft form. The final version will be available December, 1995.

  National Academy Press
  2101 Constitution Avenue NW
  Washington, DC 20418
  (800) 624-6242

- **Benchmarks For Science Literacy**

  Oxford University Press
  Sold at bookstores

- **Science For All Americans, 1989**
  Published by the American Association for the Advancement of Science. Examines the substance and character of scientific education for all citizens. Defines common knowledge required for scientific literacy.

  Oxford University Press
  Order Department
  2001 Evans Road
  Cary, NC 27513
  (800) 451-7556

Language Arts

- **Standards For Reading and Language Arts (draft)**

  International Reading Association
  800 Barksdale Road
  P.O. Box 8139
  Newark, DE 19714-8139
  (302) 731-1600

- **Content Standards Document (draft)**

  National Council of Teachers of English
  1111 W. Kenyon Road
  Urbana, IL 61801-1096
  (800) 396-NCTE
• **Language Arts Content Standards (draft)**

  Language Arts Standards Project  
  Charlotte Higuchi, Project Director  
  CRESST (National Center for Research on Evaluation, Standards, and Student Testing)  
  10880 Wilshire Blvd. Suite 700  
  Los Angeles, CA 90024-4108  
  (310) 206-1532  
  Fax (310) 794-8636

**Math**

• **Curriculum and Evaluation Standards for School Mathematics**

  National Council of Teachers of Mathematics  
  1906 Association Drive  
  Reston, VA 22091  
  (800) 235-7566, extension 135  
  Fax (703) 476-2970

**Arts**

• **National Standards for Education in the Arts**

  Music Educators National Conference  
  1806 Robert Fulton Drive  
  Reston, VA 22091  
  (800) 828-0229

3) **Assessment Frameworks for the National Assessment of Educational Progress**

• Reading Objectives  
• Writing Assessment Framework  
• Science Assessment Framework  
• History Assessment Framework  
• Geography Assessment Framework

  Ms. Munira Mwalimu  
  Aspen Systems, Inc., Suite 701  
  962 Wayne Avenue  
  Silver Spring, MD 20910  
  (301) 495-8623
ARTICLES AND BOOKS ABOUT STANDARDS


Dear Faculty, Staff, and Parents of Elizabeth Street Learning Center,

As you may know, a central part of the Los Angeles Learning Center program is holding high standards for what our students are learning. We all want them to be able to go to college or other good training programs, to get good jobs, and to be active, productive, and satisfied members of our democratic society. But the fact is, many of our students are unlikely to meet these goals unless we make them our highest priority.

What can we do?

• We need to believe and expect that all our students CAN reach these goals with our help;
• We need to work together in partnership, along with other members of our community and our social service agencies, to develop a range of strategies and resources; and
• We need to find good methods to keep track of the progress that students are making.

All the members of the LALC program team are working in various ways to support this effort -- for example, through curriculum, technology, finance, governance, and professional development. UCLA’s Center for Research on Evaluation, Standards, and Student Testing (CRESST) is helping quite directly with standards and assessment. Last spring CRESST held three meetings with teams of faculty, staff, and parents from Elizabeth Street Learning Center and Foshay Learning Center. Their purpose was to begin creation of a set of high standards to which all LALC students can aspire. Enclosed is a statement drafted by one of the teachers at our meetings that summarizes our intent and calls for your support. Also enclosed is the working draft of the standards developed at those meetings.

More work remains, however, if these draft standards are to help and inspire us all in our partnership to improve our students’ learning.

We are submitting the enclosed statement and draft standards to the site-based management councils at each Learning Center for their support of our efforts. Foshay will also want to align its LEARN standards and those of the Learning Center to insure a coherent program (they are actually quite similar). We also want to reach out to parents, to others in the community, and to students to include more of them in this dialog.

CRESST has also been developing some tools for monitoring student progress towards the standards. We have developed some alternative assessments linked to the California curriculum frameworks and to national standards documents. These are being administered to a sample of students at grades 5,
8, and 10 at both Learning Centers this fall and next spring. Student work on this first data collection will help us examine what our students can do now, what we want them to know and be able to do eventually, and how we are going to get them to that level of achievement.

CRESST will also work with the Standards and Assessment Teams to develop other methods to monitor our progress, including the possibility of portfolios or exhibitions of student work to demonstrate and assess what students have learned.

We need your ideas and your support!

We hope you'll want to join our discussions, by participating directly on the Standards and Assessment Team for your Learning Center, or by sending us your input by phone, fax, note, or e-mail. Our next meeting is being scheduled for early January. Watch for its notices. We hope you'll come!

See the display and suggestion box on standards and assessment in the Main Office and Family Centers at each Learning Center. Please sign up there if you want to join the Standards and Assessment Team or have some suggestions to make. You can also call us at CRESST (Ask for Pam Aschbacher's assistant, Joan Rector, 310-206-2570; fax: 310-825-3883). As soon as we have a firm date for our next meeting, we will let you know.

Our students need support from all of us -- teachers, staff, parents, and the community -- if they are to succeed in today's world. That's why we are all here. If we work together as partners for this goal, we can accomplish much more than any of us working alone.

Sincerely,

Pamela Aschbacher
Project Director, CRESST
World Class Standards
At the Los Angeles Learning Centers

A committee of teachers, parents, administrators and support staff from Foshay and Elizabeth Street Learning Centers are engaged in the process of creating a set of World Class Standards for our students to strive for over their twelve years of public school education. In this endeavor, which is a requirement of our participation of the NASDC program, we are receiving logistical and technical assistance from LAEP and CRESST (UCLA's Center for Research on Evaluation, Standards and Student Testing). NASDC is urging us to discuss standards because of their firm belief that a strong focus on high standards is needed in order for the educational change at our schools to be meaningful and effective. In a spirit of collegiality and deep respect for our purpose of restructuring and reculturing our school environments, we are beginning to share a common vision of quality education for our students, education of the same caliber that we desire for ourselves and for our own children as we enter the 21st century.

We have met three times and have drafted a list of eight potential standards which are rigorous and which will result in an education for our students that will sustain, serve and inspire them their whole lives long. We believe that these standards will provide teachers with a rational basis for curriculum planning, parents with a set of positive expectations for their children, students with lofty, yet attainable goals, administrators and support staff with a clear idea of how to best facilitate the common goals, and the organizations and foundations that are sponsoring us with a concrete basis for offering further support and guidance. These standards are not to be used as grade promotion requirements or as instruments of compulsion for teachers; their purpose is to motivate and inspire every stakeholder during this critical phase of our restructuring and reculturing and in the years ahead.

We have some ideas for further elaboration and articulation of these standards and how they might increase the coherence of our educational practices. We are seeking the support and increased involvement of the two LALC school-based management committees, the entire school staff, parents, and students in this process. The future of our schools and our children is in our hands. We urge you to support and join us in this effort.
STANDARDS SETTING
QUESTIONS TO THINK ABOUT AND DISCUSS

1) General questions on standards:
   • What purpose do standards serve?
   • What is it that students need to know? What is important knowledge in my content area?
   • What is good work?
   • Should all students be held to the same standards? If yes, what happens when students don’t meet the standards?

2) After reading the national standards in my content area:
   • What do the documents say about what students should be learning?
   • Are there certain standards I think should be changed?
   • Are there other standards which should be added?
   • What is my rationale for these suggestions?

3) What standards do I currently use to judge my students’ work?
   • How do my assignments match up to the national standards?
   • How do my grading practices compare with the national standards?
   • How does my students’ work compare with the national standards?
   • How do I know whether my students are meeting either set of standards? (assessment practices)

4) Looking at the 8 LALC standards:
   • What do they mean to me as a classroom teacher?
   • For each of these 8 general goals/standards, what is important to include in my content area?
   • For each of these standards:
     - What kinds of activities/assignments would support that learning?
     - How would I assess the assignments to determine that the standard had been met?
   • How can I use these standards as dimensions with which to judge student work? (How can I include these dimensions in my assignments and rubrics? i.e. complex thinking)

5) What do I need to do to help students achieve high standards?
   • What do I need to do differently to help students achieve at a higher level in my classroom?
   • What needs to be changed on the school level to help improve student work?
   • What do other stakeholders need to do differently to help students?
   • What do we do with the data from classroom and school assessments? How can we use this data to make our teaching and the school better?
Example of LALC Standard Expanded With Science Objectives

LALC Standard

Complex Thinking: LALC students apply creative and complex planning, thinking, reasoning, and/or problem solving skills to authentic issues, problems, or systems within science, technology, math, language arts and literature, social sciences, the arts, physical education, and interdisciplinary issues. These complex skills include designing, prioritizing, synthesizing, analyzing, interpreting, hypothesizing, predicting, generalizing, evaluating, and so forth. They are able to make important connections within and across disciplines. They understand what they are asked to do and can define the problem, issue, or request, and outline approaches or solution strategies.

Expanded Standard
(Here are a few of the kinds of learning objectives a science teacher might include under complex thinking -- not a complete list.)

By the end of 12th grade:

• **Given data, students can make predictions**
  e.g. making a prediction about the phenotypes of the progeny in a genetic cross using a punnett square (biology)

• **Given data, students can solve simple and complex scientific problems**
  e.g. of simple problem: calculate how many moles of water are present in 54 milliliters of water at 4° C. (chemistry)

  e.g. of complex problem: A cell was briefly exposed to an intercalating agent which caused a mutation at position 25 in the following nucleotide sequence... for a structural gene. Using your knowledge of mutagens, the codon chart, and assuming the technical ability to insert or replace nucleotides at will, predict what sort of mutation has occurred and what effect it will have on the gene product. What repair(s) to the sequence could you do that would result in normal gene product? (biology)

• **Students will be able to design an experiment based on their knowledge of scientific concepts to determine a value or disprove a null hypothesis**
  e.g. Given your knowledge of osmosis and simple lab equipment (microscope, water, sugar or salt), design an experiment which will allow you to estimate the average concentration of internal solutes in Elodea cytoplasm (biology)

• **Students will be able to understand and use data to make decisions in a broad variety of areas**
  e.g. Intelligently debate social policy such as human cloning based on a knowledge of the technology and their own value system. (biology)