

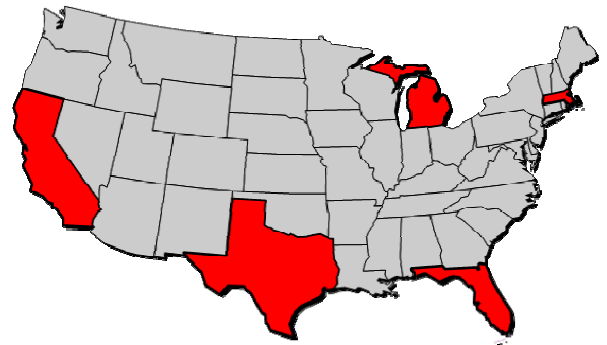


## CASE STUDY

# Core Practices in Math & Science: An Investigation of Consistently Higher Performing Schools in Five States

## The Linden School

Malden Public Schools  
(Massachusetts)



## Introduction

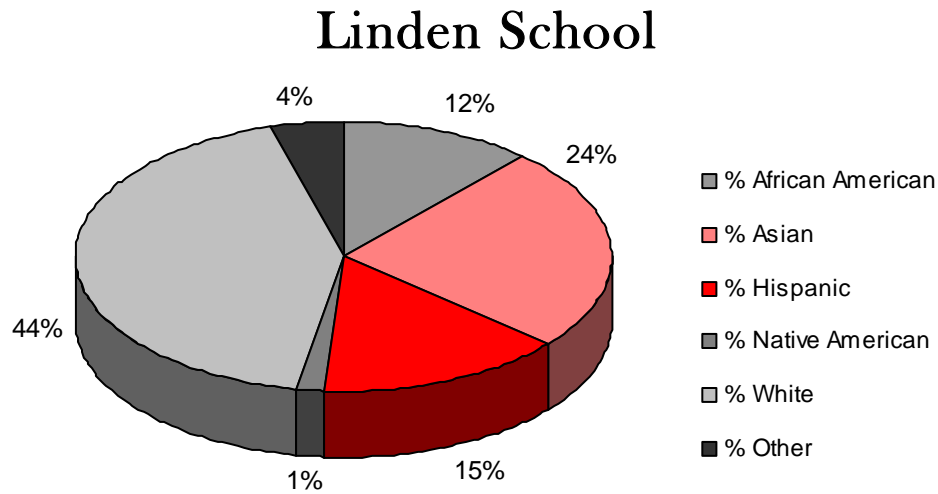
Since 1999, the National Center for Educational Achievement (NCEA) and its affiliated research teams have studied over 500 public schools across the country in an effort to identify and disseminate effective practices embraced by higher performing schools that distinguish their campuses from their average-performing peers. Building on the foundation established by this previous research, NCEA sought in the current study to focus specifically on educational practices in the areas of mathematics and science in five states: California, Florida, Massachusetts, Michigan, and Texas.

Criteria used in school selection in the current study included three years of state assessment data in mathematics and science (2004, 2005, and 2006), campus demographic make-up, percentage of economically disadvantaged students, school size, and geographic location. In addition, all of the schools selected for participation met the state and federal requirements for Adequate Yearly Progress (AYP) in 2006. Schools categorized as higher performing based on the selection criteria were those “beating the odds” with consistently better student achievement over three years, when compared to peer campuses with a similar student population. Therefore, a list of the state’s highest performing schools may contain schools different from those selected for this study.<sup>1</sup>

In order to illuminate the roles of different members in a school community, for each selected school, NCEA researchers interviewed district-level administrators, school administrators, and classroom teachers. To supplement the interview data, researchers collected pertinent documents, observed secondary level algebra classes, and invited participants to take part in the NCEA *Self-Assessment* online.

<sup>1</sup> For more detailed information about the school identification process and the list of higher performing schools included in the study, please see the full cross-case report at <http://www.nc4ea.org>.

**Figure 1: Student Demographics**



## District and School Profile

The Malden Public Schools (Malden) serve 6,387 students in seven schools. Malden, Mass., is a small city of 58,000 located just outside Boston. Over half (52%) of district students are eligible for free and reduced-price meals, and 10% are English language learners. The district's stated mission is to provide a "safe and respectful learning environment that maximizes opportunities for success in career, citizenship, and life for our diverse student community."

The Linden School serves over 800 students in kindergarten through eighth grade, with separate principals overseeing elementary and secondary grade levels. The school enrolls a highly diverse student population: 44% of the students are White, 24% are Asian, 15% are Hispanic, and 12% are African-American. Just less than half (46%) of Linden students are eligible for free and reduced-price meals, and 11% are English language learners.

Though the Linden School serves both elementary and secondary students, NCEA researchers chose the school for study participation based on the academic performance of students in the secondary grades (five through eight) only.

As a strong proponent of higher standards, NCEA recognizes school efforts to move more students to the state's higher standard of achievement by accounting for those students in the analysis of consistent higher performance. Tables 1 and 2 summarize performance at both the state's proficient and advanced standards attained by the students at Linden for the years of 2004, 2005, and 2006. The state averages included in the tables represent student performance among

schools with a student population similar to Linden, particularly based on the percentage of economically disadvantaged students.

**Table 1: Performance Trends based on Proficiency Standard**

	2004			2005			2006		
Grade	6	7	8	6	7	8	6	7	8
Mathematics	42%	Not Tested	35%	41%	Not Tested	37%	57%	52%	39%
Science	Not Tested	Not Tested	36%	Not Tested	Not Tested	39%	Not Tested	Not Tested	34%
State Average for Similar Schools (Math)	33%	Not Tested	32%	38%	Not Tested	32%	37%	33%	34%
State Average for Similar Schools (Science)	Not Tested	Not Tested	26%	Not Tested	Not Tested	26%	Not Tested	Not Tested	24%

**Table 2: Performance Trends based on Advanced Standard**

	2004			2005			2006		
Grade	6	7	8	6	7	8	6	7	8
Mathematics	18%	Not Tested	17%	15%	Not Tested	10%	30%	19%	16%
Science	Not Tested	Not Tested	4%	Not Tested	Not Tested	4%	Not Tested	Not Tested	2%
State Average for Similar Schools (Math)	10%	Not Tested	9%	10%	Not Tested	9%	11%	8%	9%
State Average for Similar Schools (Science)	Not Tested	Not Tested	3%	Not Tested	Not Tested	2%	Not Tested	Not Tested	2%

## Theme 1

### Student Learning: Expectations & Goals

**District leaders ensure that all schools teach an aligned, standards-based curriculum, while providing teachers the freedom to supplement the district curriculum based upon school- or classroom-specific needs.**

- The Malden Public Schools are in the middle of a multi-year project to ensure that the district curriculum aligns tightly to the Massachusetts state curriculum framework. As a district administrator explained, “Our English Language Arts curriculum is in good shape, and we have new staff who are developing excellent literacy strategies. Math is on deck for further curriculum alignment this year, and the district science curriculum is already aligned.”

- For secondary grades, curriculum directors collaborate with vertical teams of teachers at the high school and the middle school to align the curriculum and write curriculum documents. Explained a Linden science teacher, “The state defines what needs to be taught at each school level (elementary, middle, and high), and then the district has broken these standards down into what should be taught in each year. All the teachers at the school must write in their lesson plan for each class what frameworks are being addressed in that lesson. However, every teacher goes beyond the curriculum, based on their perceptions of gaps that may exist in the frameworks and in the district curriculum. They also often add additional material based on their personal interests.”

**District- and school-developed curriculum documents help teachers understand what instructors must teach and students must learn in each grade and subject. The district involves teachers deeply in the development of these standards-aligned resources.**

- District administrators provide schools with aligned instructional resources and ask all teachers in a particular grade or subject to attend district-wide professional development sessions. Explained a district administrator, “In the past, district leaders trusted principals to help teachers learn about the district curriculum and seek out curricular support. However, we have come to realize that curriculum, curriculum documents, and professional development really should be district-based. Consistency across schools is important, because many students in the district move from school to school. Our superintendent really supports these ideas.”
- In some subjects, pacing charts are a relatively new phenomenon, and teachers at the Linden School report that they appreciated the extra guidance these resources provide. A science teacher noted that district curriculum directors and vertical teacher teams are developing a new pacing chart for science in the middle school grades. He observed, “The curriculum will be tied more directly to the state frameworks via the pacing chart. All of the middle school science teachers are working to develop the pacing chart. Up until this year, there wasn’t any real agreement on pacing and sequence for the curriculum. After this year, everyone in the district will be teaching to a common sequence.”
- In math, a district administrator explained that the district recently developed curriculum maps and pacing guides for grades six through eight, and they are currently developing these resources for elementary grades. However, a math teacher explained that, because the Linden School opted to use a different middle school math program than the rest of the district, district administrators asked Linden math teachers to develop their own pacing guide. Explained a math teacher, “Teachers at Linden are so dedicated that we have been able to implement our math curriculum on our own, and we have been successful.”

When I needed to start developing instructional resources, I called a friend in another district who works as a trainer for our math program and sat down with her to learn more about the program.”

## Theme 2

### Staff Selection, Leadership, & Capacity Building

**Teachers meet regularly in grade- and subject-level teams. The school builds these meeting times into its schedule.**

- In addition to regularly scheduled grade-level team meetings, school leaders at the Linden School provide common vertical-team planning time for math and science teachers every week. Teachers report that this time gives them the chance to have discussions that focus on the curriculum and materials related to their subject. As one teacher explained, “These discussions are really different than the horizontal teaming time, where we are talking with teachers from all subjects. Most of their support really comes from each other, and these meetings are a wonderful opportunity to share ideas.” Another math teacher added, “This is the first year that we have been able to have vertical team meetings as a regular, formalized part of the school schedule. In these meetings, we spend a lot of time discussing our instructional practices and approaches, in order to ensure that we have consistency across grade levels. It’s important, because then students don’t have to relearn things from year to year.” In addition, teachers noted, vertical team meetings help them decide how to prioritize state standards. A math teacher explained, “We teach all of the state standards for our grade and subject, because the district requires us to. However, a math teacher at one grade level usually chooses to focus more attention on standards that are not taught in the other grade levels. This is why vertical planning is so useful.”
- Teachers at Linden meet in “Critical Friends Groups” once a month, during early release professional development time. The entire Linden faculty, divided into six Critical Friends Groups, participates in the meetings, during which participants can bring in articles, ask each for help or feedback about a particular instructional issue, or share examples of instructional practices that did or did not work well. Each team includes a specially trained Critical Friends Coach who receives a \$300 yearly stipend for helping to lead discussions.
- Teachers have the opportunity to visit each others’ classrooms, though these visits are not mandated. A school leader explained, “If teachers need release time to observe each others’ classes, I will arrange for substitutes. Anything that helps teachers teach better deserves support from the principal.” A math teacher noted, “We all feel like we have a lot to learn from each other. We need to implement new strategies and have an open door. We have to be

willing to have other teachers observe us and offer feedback. If a teacher has been successful in a particular area, other teachers should be eager to learn from them. Teachers have to be flexible and willing to try new things. You have a new group of students every year, and what worked with last year's students might not work with this year's students"

**District leaders offer professional development and coaching tailored to curricular and instructional needs identified at the district, school, and classroom levels.**

- District administrators noted that they are in the process of shifting Malden's professional development strategy away from one-time classes and workshops and toward more job-embedded professional development such as coaching. Teachers at the Linden School work with a full-time literacy coach and a part-time math coach, provided by the district. Reported a school administrator, "The coaches work with teachers to help them strengthen their skills. The literacy coach has done a lot of great modeling this year, showing teachers how to implement techniques such as reciprocal teaching, literacy circles, and peer editing. These all help to implement the district's focus on writing across the curriculum." According to a district administrator, "The biggest shift in the district in the past two years has been the shift to K-8 math and literacy coaches in the schools and the classrooms. Changing from a professional development model to an ongoing coaching model has represented a big shift in the district's instructional practices. This kind of professional development is so much better than one-day workshops. It leads to much bigger improvements in instructional practices. It's especially helpful for elementary teachers who may not have a high level of math expertise compared to secondary math teachers."
- District administrators tailor professional development to instructional needs identified by teachers and school leaders. According to a district administrator, some teachers, especially those teaching subjects other than English Language Arts and social studies, recently expressed concern that they did not have enough expertise in teaching writing. This makes it harder for teachers to comply with the district's focus on writing across the curriculum. As a result, district administrators now offer more professional development related to writing instruction. During the district's three full-day professional development sessions offered over the course of the school year, teachers participate in workshops devoted to improving writing instruction. The district's literacy director offers after-school, 90-minute mini-workshops on the same subject. Explained another district administrator, "This year, the professional development for all teachers is focused on writing. There has been a push in the district for students to strengthen their writing and revision skills and learn how to write according to rubrics in every subject area."

- Sometimes, teachers in Malden identify specific needs beyond the training offered directly by the district. To meet those needs, district curriculum directors keep teachers informed about professional development offerings available through Tufts University, Salem State College, and other local professional development providers. Explained a school leader, “Beyond the required professional development sessions provided to everyone, the district is really good about providing additional training for free. The district provides a lot of good partnerships with these local organizations to make training available and affordable. The only time teachers have to pay for professional development is if they are taking the courses for graduate credit.”

**Teacher recruitment and selection processes identify candidates who possess strong knowledge<sup>3/4</sup>both of their content area and of effective instructional practices. Induction and mentoring programs create a strong support system for new teachers.**

- Teacher recruitment methods include traditional avenues such as recruitment fairs and online job postings. Reported a district administrator, “I have about 20 nearby colleges and universities my e-mail list, and I send them job postings. We do lots of on-campus interviews at colleges and universities. We also post openings on the Malden district website [and] on a variety of other websites and publications, such as the Massachusetts Department of Education, colleges’ online postings, and local newspapers.” Recognizing that math and science positions are often difficult to fill, district administrators devote extra time to building their applicant pool in these areas. The administrator explained, “Recruiting math and science teachers is extremely tough, because few college math and science majors want to go into teaching. Careers in engineering, medicine, or pharmacy are much more popular. We try to often bring the science curriculum director with us to recruitment fairs, which is really helpful because he can speak about Malden’s math and science curriculum.
- When selecting a new teacher, principals use common hiring protocols developed at the district level. The protocols spell out all the steps in the interview and selection process, specify participants who must be on the interview committee, and give principals a menu of interview questions and writing sample prompts. The principal meets with committee members to develop hiring criteria and develop an interview protocol. A school leader explained that the principal, the academic department director from the district, and two or three teachers are all involved in screening resumes and interviewing candidates. According to a district administrator, when interviewing teachers, “The district encourages the committee to use a lot of scenario-related questions and look at portfolios containing model lesson plans and other work samples.” As she explained, “These interviewing techniques offer good evidence of skills such as planning, instruction, and

curricular knowledge, including knowledge of the state standards. We want to hire people who know how to address various needs of students. For example, we often ask candidates about their questioning techniques and their methods of giving students feedback. What do they say when a student gets something wrong? We also believe that good classroom management is the result of good planning. The portfolios offer evidence that a candidate can be a strong planner.”

- The district offers a highly structured induction and mentoring program for new teachers. In their first year, new staff members spend about 2½ hours a month attending after-school training sessions. These classes address a variety of instructional issues, including classroom management, working with English language learners and special education students, and integrating technology into instruction. In addition, all new teachers in Malden work with a mentor teacher. As a district administrator observed, “We know that when teachers leave the profession, it is often because they don’t feel supported. So we try to give new teachers a strong support system.” Veteran teachers who volunteer to be mentors participate in 15 hours of training and receive a small stipend. They must be in touch with their mentees a minimum of once a week. Explained a school leader, “The mentors are also expected to be there for the teachers the first time they do things like fill out report cards or progress reports, or anything else the new teachers might be unsure about.”

### Theme 3

## Instructional Tools: Programs & Strategies

**District and school leaders identify instructional practices that create high levels of student engagement and work with teachers to institutionalize those practices across all schools and classrooms.**

- District-recommended instructional practices encourage teachers to move away from direct instruction and toward a coaching and assessment role in the classroom. A district leader noted, “Everyone is talking a lot more now about higher stakes for students. As a result, I talk to teachers about trying to place more responsibility on students to do their work. Students need to come into the classroom and feel like they are in a high-stakes environment, and this needs to happen every day, not just on testing days. Students need to know that when they break up into pairs or groups to work on an activity, they’re going to have to report out at the end of class, and they will be expected to produce something. I want to shift the responsibility for in-class work from the teachers to the students.”
- Math and science teachers at the Linden School favor instructional practices that keep students actively engaged in the lesson. A science teacher explained, “I like to use activities that get students up and moving around.



When the instruction is good, students can become engaged and excited in their lesson, and also leave with real skills and information. I want my students to learn how to interpret information and base decisions on scientific facts. I want them to be able to critically evaluate the science news that they hear around them. I do labs at least once or twice a week, as well as demonstrations and other hands-on activities. I encourage lots of oral responses, do lots of questioning, and call on students randomly. My classroom is usually one of the louder rooms in the school.” Math teachers similarly noted that they use a lot of games, group work, and other activities that keep students actively engaged. A math teacher noted, “I like to have students do lots of group work, and then we review results together as a whole class. It’s important for students to hear each other explain things, instead of just listening to the teacher talk all the time.”

**Differentiating instruction helps teachers ensure that all students, including those with special needs, reach high academic standards.**

- District and school leaders encourage teachers and school leaders to tailor instruction to meet the needs of the district’s English language learners and special education students. For example, during class discussions, district and school administrators encourage teachers to use questioning techniques that give students some time to think before they have to give an answer. Teachers may ask students to think independently about a particular question, have students share their ideas in groups, and then report their findings to the whole class. Administrators also ask teachers to use visual displays of information in the classroom. As a district administrator explained, “We encourage all teachers to post their objectives for each class on the blackboard or whiteboard, and then refer to these objectives throughout the class period. We also ask teachers to keep whiteboards and blackboards relatively simple so that students know what to focus on.”
- At Linden, two special education teachers work with special education students in other teachers’ classes. A science teacher noted that the inclusion class he teaches has a paraprofessional in the room daily, along with the special education teachers. English language learners and special education students take a daily study skills class in which they receive additional help and remediation. The principal noted that the school offers inclusion math and English classes in grades five through eight. These classes have a regular education teacher, a special education teacher, and a special education paraprofessional in the classroom together. The principal encourages the two teachers and the paraprofessional to meet and plan together to determine what each of their roles should be to work most effectively with students. She tries to encourage the special education teacher and the paraprofessional to work with all the students in the class, not just the special education students. “Sometimes inclusion doesn’t work as well as we all think it does, if classes

still remain relatively segregated,” she explained. “Special education students need to not feel stigmatized or different in their inclusion classes.”

**When selecting and introducing new instructional programs, district and school leaders seek significant teacher feedback. This helps to ensure that educators implement programs faithfully in all classrooms.**

- During the selection process for instructional programs, district leaders seek input from teachers and school leaders. For example, when district leaders recently selected a new literacy program, the superintendent asked the literacy coordinator to convene a committee of teachers and literacy coaches from every school in Malden. Explained a district administrator, “The committee met every Friday for 6 weeks, worked really hard, and narrowed the list down to three finalist programs. The three publishers made presentations to the committee, and then the committee made a recommendation. Then we worked with the district literacy coordinator to develop an implementation plan.”
- After stakeholders select a new program, district math and literacy coaches help to implement it at each school. A district administrator explained, “If you have a new program, you have to give teachers as much support as possible. That way, when we evaluate the effectiveness of the program at the end of the year, it will be with the knowledge that the program is being fully implemented. The program can be evaluated on its merits, not on the level of implementation.” She went on to note that elementary school teachers especially appreciate the support from coaches. “The implementation of new programs can be especially hard on elementary teachers, because they are not content area experts, and they are constantly having to implement new programs in one of the core subject areas” she explained. “Secondary teachers may have their curriculum and instructional programs reviewed once every 5 years or so. For elementary teachers, review and adjustment occurs pretty much every year, since one of the subject areas they teach is always being reviewed.”

## Theme 4

### **Monitoring: Compilation, Analysis, & Use of Data**

**Educators at all school levels—district, school, and classroom—use assessment data skillfully to inform curricular and instructional decisions.**

- Students throughout the district complete quarterly benchmark assessments in math and reading. In addition, district leaders are developing a more rigorous internal assessment program in other core content areas. In science, the district recently began administering a year-end, district-wide final exam in grades six through eight. The district science coordinator develops the

multiple-choice tests and bases them entirely on the district-wide curriculum. The teachers do not see the exams ahead of time. Explained a science teacher, “Next year, we want to have a mid-year science assessment as well, which will be easier once the common pacing guide for science is in place.” The district also recently began administering quarterly writing assessments, using district-developed writing prompts.

- District leaders recommend that teachers meet in grade-level teams with the principal and the math and literacy coaches to review benchmark test results. These teams examine data and discuss ways to adjust their instruction in response. Coaches help teachers brainstorm new instructional strategies and student grouping practices that might be more effective in their classrooms. A math teacher noted, “The math coach...has done some training with teachers this year during professional development time. Working with the coach to analyze data has been a nice opportunity to reflect on our own practice and share ideas with other teachers.”
- Teachers use regular informal assessments to measure students’ mastery of the curriculum. At the beginning of each class, math and science teachers at Linden ask students to complete a “Do Now” warm-up problem covering material taught the previous day. Teachers review the warm-ups and check to see if students understand the key concepts. Math and science teachers also give frequent quizzes and closely monitor homework responses. In addition to these regular informal paper-and-pencil assessments, teachers reported that they question students constantly during class to see if they understand the concepts they are learning. As a math teacher explained, “We all do a lot of ‘clipboard assessments’ where we walk around during class and check to see how students are doing with their work. We also do ‘thumbs up, thumbs down’ assessments, where teachers ask the class if they feel like they understand a problem, and students will either give ‘thumbs up’ or ‘thumbs down.’”

**District administrators, school leaders and teachers work together to first assess the quality of instruction in each classroom, and then to provide support and monitoring so that they may make improvements.**

- Encouraged by district leaders, principals conduct brief formal and informal classroom observations over the course of the school year. The formal observations are part of the regular teacher evaluation process. For the informal evaluations (referred to as “visitations”), the district leadership team provides a two-page visitation guide for principals to use. The principals conduct weekly visitations and give teachers oral and written feedback. During leadership team meetings, principals from across the district discuss their visitation experiences. Explained a district administrator, “The superintendent wants the visitations to be an opportunity for dialogue, and wants principals to explore ways to help their teachers. For example, if the principals see that the kids are not being attentive to the teacher, the principal will suggest some new

monitoring techniques. Principals want to coach teachers, rather than being overly prescriptive.” Explained a district leader, “My hope is that teachers think it is normal to have visitations and peer observations. My goal is for there to be frequent, honest, open, and respectful conversations about instruction. Having a close relationship with the union president has really helped with this. The union president is a member of the superintendent’s leadership team, which has not always been the case in Malden.”

- To encourage consistency of instruction and curriculum delivery from school to school, district administrators frequently review student work and give teachers feedback. Explained a district administrator, “In each core subject area class, each student maintains a folder of their written work. Teams of district administrators regularly go to the schools and select five folders for each teacher, review them, and then offer the teacher feedback. This made some schools very unhappy last year. Some teachers perceived that the more feedback they received the worse they were doing, but in fact the more interesting folders actually received the most written feedback. The bad folders didn’t get a lot of feedback, yet these teachers tended to think that they did great. As a result, we changed the writing folder review process this year. We developed a more detailed feedback form, which district reviewers complete for each teacher. They write fewer comments now, but I feel like the feedback we give them is more valuable.”

## Theme 5

### Recognition, Intervention, & Adjustment

**Recognizing that improving instruction is a top district priority, district and school leaders identify struggling teachers early and provide them with focused resources and support.**

- District leaders noted that their primary focus for the Malden Public Schools is on improving instruction. “You can analyze data until you’re blue in the face,” a district leader noted, “but ultimately you have to teach teachers how to improve in the areas of need. In football, the first 80 yards are the easiest to cover, and the last 20 yards are almost impossible. On the state assessments, Malden and most other districts covered the first 80 yards a long time ago. The last 20 yards will only be covered if instruction is improving immensely. It’s not a matter of identifying the standards that have been missed, or that require greater emphasis. They’ve already identified the standards that they need to teach to, but now they’re exploring how to improve instruction in these standards.”
- If new teachers struggle in the classroom, school administrators urge them to seek immediate help from their mentors and their department directors. A school leader explained, “I will always offer individual teachers feedback on

what I see during classroom observations, especially on issues like discipline and classroom management. However, I rely on mentors and department directors for feedback and assistance related to instructional practices in a particular subject area, since I obviously don't have strong content knowledge in every area." In addition, the school leader noted that the district's professional development director is always willing to come to the Linden School to observe a new teacher and meet with him or her afterward to offer ideas and suggestions.

**School leaders and teachers work together to identify struggling students early in the school year and direct these students toward targeted intervention programs. Interventions occur both within and outside of regular class time.**

- A school administrator noted that the baseline benchmark reading and math assessments conducted at the beginning of the year help teachers to identify specific areas of weakness. "The testing has really helped us pinpoint problems with individual students that [we] may not otherwise have found," she said. "Once these individual issues are identified, teachers can tailor the in-class interventions to the student." Assessment results can also help teachers adjust instruction in response to an entire grade's strengths and weaknesses. A math teacher explained that she administers a pre-test before each curricular unit "I'll review the pre-test results, and then adjust my instruction accordingly, so that if all the students are strong in a particular area, I won't spend as much time on that area, and I'll spend more time on an area where the students need extra help. I also give a post-test after each unit, to see if there are concepts that need to be re-taught."
- Flexible grouping strategies help address the needs of struggling students in the classroom. "I'll often pair up two or three struggling students with a few students who are doing well with particular concepts," a math teacher explained. "It is important that these groupings be flexible, so that the same groups of students aren't always labeled as 'struggling.'" Teachers reported that building diagnostics into all class activities helps teachers create these flexible groups.
- At the beginning of each school year, Linden School leaders give teachers the names of students who have struggled on the previous year's state assessments, as well as data about the particular areas in which each student struggled. Teachers urge these students to participate a little more in class and to come in after school for tutoring. While the school does not offer a formal tutoring program, many teachers stay after school to work with individual students. Each teacher maintains an online homework page, and some teachers create their own websites with lots of extra resources, activities, and games to help students who may be struggling. Outside of the traditional school year, the district sometimes offers summer courses in

English Language Arts and math to help struggling students catch up. A school leader noted said that everyone at the school works hard to tailor in-class and out-of-class services to meet student needs. “Each child is unique,” she noted. “Success means taking each child from where they are and moving them forward to where they need to be, and enabling them to experience successes along the way.”

## **Summary of Findings**

### **Student Learning: Expectations & Goals**

District leaders ensure that all schools teach an aligned, standards-based curriculum. Detailed curriculum documents, developed at the district level with significant teacher input, help all teachers create standards-aligned lessons.

### **Staff Selection, Leadership, & Capacity Building**

Teachers convene regularly in grade- and subject-level teams during meeting times built into the school schedule. District leaders offer professional development and coaching tailored to curricular and instructional needs identified at district, school, and classroom levels. Teacher recruitment and selection processes identify candidates who possess both strong knowledge of their content area and knowledge of effective instructional practices. Induction and mentoring programs create a strong support system for new teachers.

### **Instructional Tools: Programs & Strategies**

District and school leaders identify instructional practices that create high levels of student engagement and work with teachers to institutionalize those practices across all schools and classrooms. Teachers ensure that all students reach high standards by differentiating instruction. When selecting and introducing new instructional programs, district and school leaders seek significant teacher feedback, helping to ensure faithful implementation of programs.

### **Monitoring, Compilation, Analysis, & Use of Data**

Educators at all school levels use assessment data skillfully to inform curricular and instructional decisions. District administrators, school leaders and teachers work together to first assess the quality of instruction in each classroom and then provide the support and monitoring so that they can make improvements.

## **Recognition, Intervention, & Adjustment**

Recognizing that improving instruction is a top district priority, district and school leaders identify struggling teachers early and provide them with focused resources and support. School leaders and teachers work together to identify struggling students early in the school year and direct these students toward targeted intervention programs. Interventions occur both within and outside of regular class time.



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