## **Renewal Inspection Report**

CAPE COD LIGHTHOUSE CHARTER SCHOOL ORLEANS, MA



October 31-November 3, 2004

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### About the renewal process and site visit report

Beginning in the spring of the third year of its charter (and ending August 1<sup>st</sup> following its fourth year), a school may apply for renewal of its charter for another five-year term. Following guidelines set forth in the *Application for Renewal of a Public School Charter*, an application for renewal should be an articulate, affirmative response, based on clear, credible evidence, to the questions that guide charter school accountability. It must also offer compelling answers to questions about the school's plans for the future. The application should be a sound, well-supported explanation of why the Board of Education should renew a school's charter.

Once this application has met a minimal review of its clarity and coherence, the Department of Education will appoint an evaluation team to conduct a three to four day visit of the school to corroborate and augment the school's application for renewal. This report is the result of one such evaluation.

The renewal site visit process and report provide a detailed and current portrait of a public charter school at the time of its application for renewal. While the renewal site visit report itself is a vital source of information within the renewal process, it is most effective when used in conjunction with the longitudinal school performance data available to the Department of Education. The combination of more general long-term data with the detailed information gathered by the renewal visit constitutes an evidence base rigorous enough to inform decisions about the future of public charter schools responsible for the education of students in the Commonwealth. In keeping with the Massachusetts Board of Education's commitment to a public charter school accountability system that is based on robust and diverse performance data, the renewal site visit report does not make recommendations about whether or not a school should be renewed. It presents a detailed picture of the present state of the school as one of several key sources of information to be considered by the Board of Education in its renewal decision.

#### How to read this report

The first section of this report describes the school's setting. Included in this section are information on the origin and history of the charter, student demographics, staffing and the school's educational program. This is also an opportunity to include any organizational history, such as changes in the board and leadership or challenges the school has faced, and its response to those challenges.

The core of the report is the Renewal Inspection Team's findings. Findings are the team's assessment of the school's strengths and areas for improvement that, in their judgment, have the greatest bearing on the school's achievement of its defined goals. Findings are organized under each of the renewal questions: *Is the academic program a success? Is the school a viable organization? Is the school faithful to the terms of its charter?* The team's comments on the fourth question, *If the school is renewed, what are its plans for the next five years?*, reflect their judgment of the quality of the school's proposed new goals and their assessment of the school's capacity to fulfill the evidence supporting the team's judgments. Finally, **Appendix A** illustrates the team's schedule during the renewal visit.

### **RENEWAL INSPECTION TEAM**

**Kate Gill Kressley, Lead Inspector**, is a Senior Research Associate with RMC Research Corporation. Kate has experience as a special education administrator, pre-service and in-service teacher educator, technical assistance provider and family, school and community program developer. At RMC, Kate is co-director of a national technical assistance center serving over 75 federally funded parent information and resource centers. She has served as team leader for charter school renewal inspections for three years. Prior to joining RMC, Kate directed federal and state education initiatives with public and private funding and was a special educator with K-12 certification.

**Karen E. Schuster** is a reading specialist at the Portsmouth Middle School in Portsmouth, NH who holds master's degrees in English and Reading. Her areas of expertise include teaching, professional training, evaluation and assessment, research and program development. She has worked with teams of educators in aligning curriculum to State Frameworks and in developing internal and external assessment measures and protocols in reading, math, social studies and science. She also serves as program manager for Portsmouth PLUS!, a middle school after school program funded by the Nellie Mae Education Foundation.

**Roberta E. C. Tenney** is the Charter and Choice Schools Consultant for the New Hampshire Department of Education. She has over 25 years of experience as a history teacher and administrator in independent schools, with responsibilities in faculty supervision, initiation of new programs and curriculum. She is certified in New Hampshire as a school superintendent, principal and social studies teacher. Ms. Tenney holds degrees in history, liberal studies and education and is a doctoral candidate at the Columbia University Teachers College. She also has experience in adult and leadership education.

**Lynne Christensen** is a Field Examiner for the Office of Educational Quality and Accountability. A former elementary school principal and teacher, Ms. Christensen has 25 years of experience in administration, program review, curriculum mapping, professional development for teachers and paraprofessionals. Her educational content areas include special education, gifted and talented programming, reading and mathematics. Currently, she is completing a doctoral degree in education leadership from the University of Massachusetts.

### SETTING

The Cape Cod Lighthouse Charter School (CCLCS), one of Massachusetts first 14 charter schools, opened its doors as a public middle school in September 1995. Drawing students from all of Cape Cod, CCLCS operates at capacity enrollment with 180 students in grades 6, 7 and 8. The school is located in renovated commercial space in an underground strip mall in Orleans, a coastal community rich in history, seashore resources and arts and cultural opportunities. The school views the greater community as its campus and uses a small fleet of vans to transport students to learning opportunities across the region.

The demographic make-up of the school mirrors much of the population of Cape Cod. During the last charter period, the CCLCS student demographic data shows that white non-Hispanic students have comprised over 95% of the student body, with minority students making up the remaining 5%. No students were classified as Limited English Proficient and less than 4% of the students qualified for free/reduced lunch. Special Education students and students attending with 504 plans averaged around 15%. Students enrolled at CCLCS tended to stay; on average only 2% of students have withdrawn from the school and a waiting list persists at every grade level. Classes are usually no more that 20 students and the student-teacher ratio is approximately 11:1.

Invested in participatory leadership and consensus decision-making, CCLCS has a leadership team comprised of one director and several teacher/administrators with special responsibility for curriculum, professional development and special education. In all, the school has the full-time equivalent (FTE) of 14.5 classroom teachers, two and one-third FTE special educators, two teaching assistants, one school nurse and five full or part time specialists for art, physical education, health, music and ancillary psychological and therapy services. The majority hold master's degrees and Massachusetts' teaching certification.

While staff turnover has ranged from low to moderate, new staff are mentored by experienced teachers to give them access to a rich interdisciplinary curriculum and support their integration into a community of learners.

The philosophy, mission, culture and curriculum of the CCLCS are based on key concepts of intellectual development, academic achievement, project-based interactive learning, interdisciplinary studies, respect for the natural environment, working with community partners and an ethical community.

All students take full programs in reading/language arts, math, social studies and science, with additional classes in studio art, health and physical education once or twice a week. Most 7<sup>th</sup> and 8<sup>th</sup> grade students take French or Spanish. All students take part in Seminars, which draw students for intensive study of non-traditional subjects. They also benefit from additional enrichment programs such as ecological site visits, outdoor

leadership training, day trips to museums and artistic performances and extended travel opportunities. Within an inclusive environment, special education is provided to students with IEPs or 504 plans. Curricular contents and skills are coordinated with the Massachusetts Curriculum Frameworks and teachers strive to draw relationships between knowledge and its application.

The school's Board of Directors is comprised of parents, community leaders, resource partners and educators, including representative school faculty. The school has remained financially stable over the term of its charter and strives to secure additional financial support through faculty grant writing and development work undertaken by its Foundation. Parents of students are active in diverse roles that support student learning, ranging from teaching seminars to coaching sports and driving school vans.

During this charter period, the CCLCS has successfully negotiated changes in school and board leadership as a new director, new faculty and new board members came aboard. Student performance has been strong with enrollment at capacity. Limited space continues to be a challenge and school leaders are seeking resources to build or renovate a school that would allow additional students and a more optimal learning facility.

### FINDINGS

**RENEWAL QUESTION 1: IS THE ACADEMIC PROGRAM A SUCCESS?** 

1. CCLCS is outperforming the state average in all grade levels, based on MCAS 2004 assessment results in English, Math and Science/Technology. Achievement has been consistently strong in MCAS performance during the charter period. The CCLCS ranks competitively among Cape Cod districts with exceptional achievement in 7<sup>th</sup> grade language arts and 8<sup>th</sup> grade science/technology.

Table 1 summarizes MCAS test results for students in each performance category.

Percentages	of Stud	ents in	Each M	ICAS P	erform	ance Ca
		Grade	e 6 Matl	h		
	n	% A	% P	%	%	SS
				NI	W	
2001	57	11	37	37	14	238
2002	59	20	41	31	37	243
2003	60	5	33	42	37	n/a
2004	60	25	32	30	13	n/a
	G	rade 7	English	LA		
	n	% A	% P	%	%	SS
				NI	W	
2001	53	15	66	13	6	248
2002	59	8	69	22	0	246
2003	60	12	77	12	0	n/a
2004	60	7	70	23	0	n/a
		Grade	e 8 Matl	h		
	Ν	% A	% P	%	%	SS
				NI	W	

## Table 1: Cape Cod Lighthouse Charter School - MCAS 2000-2004Percentages of Students in Each MCAS Performance Category

Grade 8 English LA						
	n	Α	Р	NI	W	SS
2000	56	2	86	11	0	246
2001	57	5	91	4	0	251

n/a

n/a

n/a

Grade 8 Science and Technology						
	n	% A	% P	%	%	SS
				NI	W	
2000	59	8	36	41	15	240
2003	56	4	59	30	7	n/a
2004	60	17	47	32	5	n/a

n = number of students tested; A = Advanced; P = Proficient; NI = Needs Improvement; W = Warning/Failing, SS = Average Scaled Score, discontinued by MA in 2002.

### Yearly Comparative Analysis of MCAS Results by Average Scaled Scores or Proficiency Index

Comparative analysis of MCAS results by average scaled scores shows that CCLCS has performed consistently above the state average and has scored comparably with the average composite scores of Cape Cod sending districts, achieving a higher than average scaled score in some years and subjects and a lower score in others.\* In all years, ELA results have been persistently strong, while 6<sup>th</sup> grade and 8<sup>th</sup> grade Math performance has been variable.

 Table 2: Yearly Comparative Analysis of MCAS Results by Average Scaled

 Scores

2000 Average Scaled Score	Gr. 8 ELA	Grade 8 Math
CCLCS	246	236
Composite	227	211
State	240	228

2001 Average Scaled	Gr. 6 Math	Gr. 7 ELA	Gr. 8 ELA	Gr. 8 Math
Score				
CCLCS	246	236	251	245
Composite	227	211	247	239
State	240	228	242	233

2002 Average Scaled	Gr. 6 Math	Gr. 7 ELA	Gr. 8 Math
Score			
CCLCS	243	246	237
Composite	239	249	239
State	235	242	232

The number represented by "Composite District Average" reflects a weighted average of students from the area. For example, a "Composite District Average" for a charter school that draws 75% of its students from Nauset and 25% of its students from Harwich will be made up of data drawn 75% from Nauset and 25% from Harwich. Districts sending students to CCLCS are Barnstable, Chatham, Dennis-Yarmouth, Harwich, Nauset, Provincetown, Truro and Sandwich.

Massachusetts discontinued use of average scaled scores in 2002. Comparative analysis of MCAS results by Proficiency Index shows that CCLCS student performance continues to outrank state performance and ranks competitively within the Cape Cod middle schools.

Table 3: Yearly Comparat	ive Analysis of	f MCAS Resu	ilts by Profici	ency
Index				
2003 Proficionay Inday	Cr 6 Math	Cr 7 FI A	Cr & Math	Cr 8 8

2003 Proficiency Index	Gr. 6 Math	Gr. 7 ELA	Gr. 8 Math	Gr. 8 Sci/Tech
CCLCS	69.6	96.7	76.7	73.7
Composite	69.2	88.6	67.5	67.2
State	68	85.2	63.2	61.7

2004 Proficiency Index	Gr. 6 Math	<b>Gr.</b> 7	Gr. 8 Math	Gr. 8 Sci/Tech
		ELA		
CCLCS	78.8	92.5	86.8	87.1
Composite	na	na	na	na
State	68.4	86.4	65.0	62.7

Table 4: 2003 and 2004 CCLCS Student MCAS PerformanceRanked Against Cape Cod Middle Schools for 2003-2004

MCAS	2003 Ranking	2004 Ranking
Gr. 6 Math	10 <sup>th</sup> of 15	9 <sup>th</sup> of 15
Gr. 7 Language Arts	1st of 14	8 <sup>th</sup> of 14
Gr. 8 Math	6 <sup>th</sup> of 14	1 <sup>st</sup> of 14
Gr. 8 Science and Technology	5 <sup>th</sup> of 14	1 <sup>st</sup> of 14

Positional ranking for 2003 and 2004 shows CCLCS gaining 1<sup>st</sup> place ranking among 15 Cape Cod middle schools in 8<sup>th</sup> grade Math and Science/Technology achievement. The school dropped from first place to 8<sup>th</sup> in Gr. 7 language arts and gained slightly in Gr. 6 Math. The list of Cape Cod middle schools is included in Appendix B.

All CCLCS students participated in 2004 MCAS testing, including 31 students (17%) with disabilities. Performance data is not disaggregated for minority and low income students because the current enrollment does not include significant numbers of students in these categories, nor students who are English language learners. While the demographics of enrollment are similar to neighboring sending districts, CCLCS serves a largely homogeneous student body that does not reflect state averages for minority, low-income and LEP students. The school does not receive Title I funds.

2. CCLCS has met Adequate Yearly Progress (AYP) and Massachusetts performance and improvement targets in English/Language Arts and Math.

CCLCS has met Adequate Yearly Progress since AYP was instituted in 2002 and has reached or exceeded the Massachusetts Department of Education targets for performance and improvement in English and Language Arts during this charter period. Performance and improvement ratings for Massachusetts public schools and districts are issued every two years. Ratings are based on aggregate student performance on MCAS tests. Performance is measured using a Composite Performance Index (CPI), a measure of the distribution of student performance relative to attaining proficiency. Ratings are used to track schools' progress toward meeting the goals of all students achieving proficiency in English language arts and mathematics, a goal for Massachusetts and a requirement under the federal *No Child Left Behind Act of 2001*.

The Massachusetts Department of Education Cycle III Accountability Report (2003-2004) documents that CCLCS reached targets for performance and improvement in English language arts and mathematics. CCLCS achieved a "Very High" performance rating and a "No Change" improvement rating in English language arts, with a CPI of 94.6, well over the state target of 75.6. In mathematics, the school achieved a "Moderate" performance rating and a "No Change" improvement rating and a "No Change" improvement rating and a "No

#### 3. Progress as measured by the CAT-5 shows stable achievement over time.

The California Achievement Test, 5<sup>th</sup> Edition (CAT-5), is used as an external standardized measure to track student performance over time and is administered to all students each spring in reading, language arts and mathematics. By the end of 6<sup>th</sup> grade, students are performing about grade-level and continue to achieve at high levels, making adequate yearly progress as measured by Grade Equivalence. In comparing the cohorts below, data suggests variable achievement as measured by Normal Curve Equivalency (NCE). While overall performance is well above the national NCE average of 50, performance over time shows a more variable pattern across cohorts and subjects, with the classes of 2003 and 2004 showing more consistent gains.

Class of 2002			
	2000	2001	2002
Reading	10.0 GE	11.3 GE	11.4 GE
	65.7 NCE	68.9 NCE	66.1 NCE
Language Arts	11.9 GE	12.9 GE	12.9 GE
	69.9 NCE	69.7 NCE	64.3 NCE
Mathematics	8.0 GE	11.8 GE	11.1 GE
	61.0 NCE	68.9 NCE	59.5 NCE
Class of 2003			
	2001	2002	2003

#### Table 5: CAT/5 Cohort Analysis - Grade Mean Equivalence and NCEs

Reading	9.2 GE	10.9 GE	11.3 GE
	58.2 NCE	65.2 NCE	65.6 NCE
Language Arts	11.1 GE	11.0 GE	11.6 GE
	64.7 NCE	60.7 NCE	60.3 NCE
Mathematics	8.1 GE	10.9 GE	11.5 GE
	55.9 NCE	64.9 NCE	62.1 NCE
Class of 2004			
C1455 01 2004			
	2002	2003	2004
Reading	<b>2002</b> 10.5 GE	<b>2003</b> 11.5 GE	<b>2004</b> 11.8 GE
	10.5 GE	11.5 GE	11.8 GE
Reading	10.5 GE 65.1 NCE	11.5 GE 70.3 NCE	11.8 GE 69.6 NCE
Reading	10.5 GE 65.1 NCE 11.2 GE	11.5 GE 70.3 NCE 12.6 GE	11.8 GE 69.6 NCE 12.9 GE

## 4. School leadership has used external and internal academic assessment data to strengthen instructional programs such as Math, English/Language Arts and World Languages.

To strengthen student math achievement, CCLCS gleans data from external standardized assessment (MCAS and CAT-5), informal internal assessment, and anecdotal information provided by school alumni.

The leadership team described how the school used systematic analysis of external and internal assessment data to bolster math achievement. After detailed item analysis on the MCAS and CAT-5, faculty identified math curricular gaps, the need for more instructional time, and remedial and enriched instructional content. In addition, they gathered feedback from 9<sup>th</sup> grade alumni who were experiencing difficulty in high school algebra. As a result, the curriculum was revised to address identified skills, text resources were changed, an additional math class was added each week and students in the 7<sup>th</sup> and 8<sup>th</sup> grades were grouped according to readiness for algebra.

In focus groups, CCLCS students applauded their teachers' willingness to provide special coaching, whether for remediation or enrichment. In the words of one 8<sup>th</sup> grader, "They just seem to know where we aren't getting it. They stick with us until we really know it." Other students relayed how a special enrichment group was formed and met in a closet to accommodate their desire to work on more challenging materials. In a similar vein, the school altered 7<sup>th</sup> and 8<sup>th</sup> grade curricular expectations in essay writing and drew upon text books used by receiving high schools to help CCLCS graduates do even better in 9<sup>th</sup> grade and beyond.

Parents, faculty and community partners provided rich anecdotal evidence that attests to CCLCS graduates' preparedness for high school and their success in

challenging higher education settings, such as Harvard, Yale, Brown, Johns Hopkins and Dartmouth. The school hosts a yearly reunion of alumni at Thanksgiving and collects survey information about the progress of middle school graduates as an indirect measure of the school's success. The strength of the curriculum in preparing students for high school academics is demonstrated by a summary of placements earned by 2004 graduates, below.

Subject	Honors	College Placement	Other
	Placement		
Social Studies	Honors 42%	Standard College 58%	
English	Honors 42%	Standard College 57%	Remedial 1%
Math	Geometry 60%	Algebra 40%	
Science	Honors 45%	Standard College 55%	
World Languages	Level 2 – 88%	Level 1 5%	No language 7%

 Table 6: Summary of High School Placements Earned by 2004 Graduates

# 5. The faculty has made significant progress in building a coherent system of internal assessment and individual student academic support. Benchmarks and rubrics are emerging in core content areas to monitor achievement on an ongoing basis.

In addition to using external and anecdotal data sources for assessment, CCLCS has made significant progress in achieving school-wide coherence in informal assessment. For example, many science, language arts and social studies curriculum notebooks are replete with pre-tests, rubrics, summative/chapter tests, guidelines for interdisciplinary projects and developmental expectations for essays and portfolios and other subjects are in earlier stages of development.

Teachers stated that the assessment process is built upon extensive professional dialogue. Within subject and grade level teams, teachers discuss and co-create strategies for assessing student learning and expected benchmarks. These are communicated across the faculty and, importantly, to students and families.

In group interviews, students demonstrated responsibility for their own learning as they readily spouted rubrics for core subjects and major projects. They liked the fact that tests were based on mastery; i.e., that they could retake portions of a test until they mastered the material. Focus group parents stated that their children's academics were well monitored. They described open and frequent communication between home and school in which teachers detailed how students were doing; what their learning needs were; what they were doing to address these and how parents could help their students. While progress has been made, more work lies ahead. The school cites as a major goal: to *better organize, standardize and externally validate the school's system of benchmarks and rubrics*. With this in place, they intend to integrate the benchmarks more fully into school progress reports, which are sent out each trimester and include descriptions of curriculum, expectations for students, letter grades and performance summaries from each teacher.

All teachers can access assessment data on students through centralized files, which include Individualized Special Education Plans (IEPs), 504 plans and Student Success Plans which are developed for any student who is falling behind in academic or behavioral expectations. Teachers monitor students through weekly team meetings and informal dialogue. They report that this frequent interaction, along with the small size of the school, helps them to stay on track with each student.

# 6. Aligned to the Massachusetts Curriculum Frameworks, the CCLCS curriculum embodies interdisciplinary, interactive and project-based learning experiences. This curriculum results in a high rate of engagement and responsibility for middle school learners.

Over almost a decade, CCLCS teachers have compiled a rich and challenging curriculum that is aligned to the Massachusetts Frameworks and captures the principles of learning outlined in the school's mission. Curriculum produced by current and former teachers contains descriptions of the major units for each subject and grade level and documents state frameworks, student benchmarks, and the mission strands, i.e. aesthetic, environmental, interdisciplinary, civic-minded, writing across the curriculum. While the level of detail varies, the unit notebooks reflect high academic standards and contain lesson plans, instructions for activities, student worksheets, resource materials, assessments, rubrics and student work samples. Much of this information has been transferred electronically to a school wide data base, accessible online to all teachers in the school.

The leadership team acknowledged that finding time to adequately document and preserve curriculum is difficult, but they recognize the progress made in recent years. They encourage teachers to document and preserve their dynamic lesson plans that undergo continual refinement as they add new dimensions, resources and community members.

While impressive on paper, the CCLCS curriculum comes alive in the classroom. The principle of interdisciplinary teaching is deeply engrained and can be observed across subjects and grade levels. During the site visit, French students were engaged in history, social studies and language arts stimulated by a visit to a cemetery. In another example, 8<sup>th</sup> graders, reading "Lord of the Flies", performed a mock trial of one of the characters, taking on roles of prosecutor, defense lawyer, defendant, bailiff and expert witness. The teacher, as judge, used a rubric

to assess students individually and as a team. Art students practiced perspective by learning geometric drawing skills. Language arts students produce drawings to illustrate their knowledge of suffixes and prefixes.

In a social studies class, a parent presented, from personal experience, how the Day of the Dead is celebrated in Mexico. In the same class, students formed hypotheses to explain a segment of migratory progress of the Monarch butterfly and interpreted actual data from graphs and charts to test their theories.

Many teachers stated or posted clear expectations for the day's lesson and students' opportunity for active participation. Teachers stretched to give students knowledge, not in the abstract, but as real-life application, linked to former learning. Students reported that teachers were always "telling them what they learned before, why it is useful and how it is going to help them learn something new."

During the site visit, the review team observed high rates of student engagement across subjects and grade levels. In focus groups, students noted that "teachers here make learning really interesting. They are excited about it and you get that way, too." One student, in comparing this school with others, remarked on the amount of "hands-on" activities they have here and the fact that teachers really listened to students. Another said that his science teacher "would never tell them the whole thing...they had to have a theory, then experiment until you proved it." One teacher is admired for his ability to transform "boring" science and mathematics facts into operatic singing.

CCLCS offers a unique curriculum component in its seminars, which dedicates over 100 hours teaching hours per year to subjects that allow students to develop skills and knowledge fueling a broad range of interests. One teacher said that seminars "are where we pass on our love for learning". Seminars offer opportunities for intensive interactive study of subjects rarely offered to middle school students, such as astronomy, papermaking, Asian religions, rock climbing. Faculty, administrators, parents and community partners create seminar topics based on their own passions and student interests. Students come together in multi-age groups, which build bridges across grade levels in the school. One board member enthusiastically described what students learned about mathematics and structural physics through a timber-framing seminar. Another member, who practices law, recounted his role in helping students prepare for state-wide mock trial competition.

In one seminar, 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> graders were pioneers for the Brick Project, which uses advanced computer technology to link middle school students from developed and developing countries through computer video conferencing and global-spanning email matches. The Brick Project employs literature as a common thread to bring students together, even though separated by geography, culture and demographics. Facilitated by Brick Project founders from South Africa and India, students watched and listened to peers in Lithuania react to a short story written about Zimbabwe. In the discussion that followed, CCLCS students brought out keen observations on the challenges facing the young African protagonists in the shared story. They are collecting pictures to post on the website to share their culture with the Lithuanian students and look forward to the Brick's expansion to students in India and Zimbabwe.

# 7. Differentiated instruction is accomplished through teachers' emphasis on multiple learning modalities and teaching strategies. Students are encouraged to express mastery through traditional and innovative learning products.

The use of differentiated instruction was well documented through classroom observation, teacher interview and curricular review. Teachers use traditional and innovative methods to introduce content knowledge and creating learning experiences. A sample of these include: short lectures, demonstrations with physical objects, student experimentation, teacher-student questioning and discussion, independent and group projects, peer-to-peer instruction, performances and simulations. Teachers assess students' learning modalities and work to accommodate their strengths by offering a variety of "input and output" modes within core lessons and long-term projects. At the same time, they work to strengthen weaker modalities so that all students can meet content and grade level expectations.

In one example, a teacher estimated that 25% of her students were "bodily/kinesthetic" learners, while the rest were "abstract thinkers". Because she and other teachers recognize these differences, they offer students a range of choices for expressions of mastery, such as oral presentations, essays, models or videos. Students are also given the opportunity to propose their own ideas.

In a similar vein, sixth grade science students, who were embarking on a twoweek project, faced creating an imaginary animal suited for survival in a hypothetical habitat. In this project, they will produce a drawing of their animal; build a three-dimensional model using recycled materials; write a two-page description; and deliver a 3 minute oral presentation to the class.

In a classroom observation, an 8<sup>th</sup> grade science teacher presented difficult concepts in phase theory, using works, drawings, manipulative objects and a simple experiment to drive the concept home. Students needed to take notes and draw sketches in their science journals to show mastery of the concepts. The teacher roamed the classroom, answering individual questions and rephrasing explanations of ideas for students who needed help grasping the concepts.

Students with special needs are fully integrated within CCLCS. The special education staff, comprised of a director, teacher and teaching assistant, work hand-in-hand with the faculty to accommodate learning disabilities and help

students with attention disorders be successful. Observers noted students with special needs functioning at a variety of levels in classrooms, with some engaged and others not. The special educators spent much time in classrooms, working in tandem with the subject teachers, who share class content and lessons with them in advance. Some students with IEPs are given additional instruction in small groups in the resource room. CCLCS secures ancillary services, i.e. therapy, counseling, assessment, from licensed/certified professionals in the community.

Overall, the most recent Massachusetts Coordinated Program Review (CPR) indicated strong performance in serving students with IEPs and 504 plans. Parents interviewed expressed satisfaction with the school's inclusive approach and comprehensive support services. When interviewed, the ancillary psychologist noted that the school has developed a reputation across the Cape Cod community for its success with students with special needs.

## 8. A remarkable relationship exists among staff, parents and students that is characterized by mutual respect and understanding and a genuine passion for learning.

Within this small school, teachers strive to prepare students to become independent life-long learners but also to become constructive, happy and civicminded members of their communities. To do this, faculty and staff focus on nurturing the whole child, knowing that students come as children and leave as young adults.

The quality of personal relationships permeates the climate of CCLCS. While teachers acknowledge their roles as standard bearers of civility, one teacher observed, "You wouldn't be here if you didn't really enjoy this age level!" In classroom and informal observations, the renewal team observed teachers across the school engaging with students in positive and respectful ways. Teachers entertain round-robin reports of sports, social and family activities at the beginning of some classes or over family-style lunches. Teachers post their home phone numbers and email addresses in their classrooms and students and parents contact them frequently for guidance with homework, projects or problems.

Students, parents, faculty and board members described the student culture as gentle, inclusive and "like a family". When contrasting CCLCS to other middle schools, they remarked on the abundance of friendships and the absence of cliques, bullying and "fashion police." Students affirmed that they were friends with nearly all their classmates and felt secure within a close-knit community. Based on their experience in other schools, both high and low achieving students said that they felt accepted by teachers and classmates. The school's "no-cuts" policy encourages students to participate in sports and extracurricular activities regardless of ability level. Several students said that they felt well prepared to go on to high school but they dreaded losing touch with friends and teachers.

Administrators and teachers attribute general success in classroom management to the strong personal bonds that exist and the willingness for adults to champion students, one at a time. A typical CCLCS class is lively but orderly. Class meetings are used to discuss issues and solicit opinions on solving social problems.

Classroom routines support teachers' expectations for behavior, performance and manners. When necessary, teachers use considerable skill in setting limits, redirecting behavior and focusing attention. At times, teachers and students enter into behavior contracts, with active parent support. Neither vandalism nor security of personal property is a problem and only a handful of formal disciplinary actions are taken each year.

Family-school partnerships are integral to the school's success and are built on trust and communication. Teacher-parent interactions are frequent and productive. Parents are kept informed through weekly newsletters and access to a high quality website that allows the family to check homework assignments and get information about curriculum, projects and upcoming events.

Upon enrollment, parents sign an agreement to volunteer three hours each month. However, many parents far exceed this expectation. Parents provide coaching and transportation for the CCLCS interscholastic sports program and other extra curricular programs. They are welcomed as seminar leaders and as content resources for subject areas. With faculty, they supervise students on class trips that range from in-town excursions, volunteers at Sea Camp and chaperones on the 8<sup>th</sup> grade trip to Gettysburg and Philadelphia.

Parents reported their ease in contacting teachers, before or after school or by phone and email. They appreciated how teachers take a personal interest in the students; the challenging academic program and the emphasis on student responsibility for learning. Several parents said that their older children, who graduated from CCLCS, went on to be successful in high school honors programs and selected demanding college majors. They credited the CCLCS teachers and curriculum for helping their children take on academic challenges without fear of failure.

### **RENEWAL QUESTION 2: IS THE SCHOOL A VIABLE ORGANIZATION?**

1. The school demonstrates a vital approach to shared decision making that is driven by teachers and includes the administration, the board of trustees, parents and students. Guided by the school mission, decision makers strive for consensus in priorities and action with administration playing a critical role in researching options and accessing resources.

At the center of the school's success lies a commitment to governance that relies on participatory leadership and consensus decision-making. Teachers, administrators, trustees, parents, students and staff all take part in governance, but there is strong agreement that CCLCS is teacher-driven. In the words of one parent, "Teachers are the engine that drives the school and administration is the support staff that clears away the obstacles."

Leadership within the school is guided by a team of senior faculty and the school's director. Teachers, along with the director, hire new faculty; monitor student achievement; create and revise the curriculum to strengthen academic performance and enable the mission; identify issues for school-wide deliberation; initiate committees and workgroups; and take the lead in developing the school's many programs with community partners.

Teachers said that their voices were truly heard and that this was an important factor in their commitment to the school. A staff member said that "anyone could surface an issue for group consideration, as long as they were willing to work on its resolution". In interviews, teachers and staff shared that participatory leadership and shared decision making is "costly" in time, but results in tremendous "buy-in" as issues are brought to resolution. Faculty on the leadership team credited the school's director for the critical role he plays in enabling CCLCS to continue its leadership tradition.

The CCLCS Board of Trustees, with 17 members, includes teachers, the school's director, parents of present and alumni students, community partners and others who bring important expertise such as fund development. Meeting 11 months a year, the board is self-renewing, has standing committees in place and is guided by a comprehensive strategic plan. Students and faculty communicate regularly with the board, by demonstrating projects, reporting on activities or raising issues for consideration. Some board members have served as seminar teachers and have grown to know the school from the teachers' perspective. While the board monitors academic as well as financial data, they are respectful of the faculty role in curriculum development and instruction. They are known for asking ideas from teachers. In addition to securing a permanent facility, the Board has placed a priority on improving faculty salaries and benefits and in establishing an independent retirement annuity for each employee.

Parents report high levels of satisfaction with the school and recognition of their role in participatory governance. Teachers affirmed that parents are critical to the operation and governance of the school. Students are encouraged to participate in leadership through roles in student government, participation in class and schoolwide issue discussions and presentations to the Board, the community, and civic organizations.

2. The words of the mission are expressed in the actions of the school learning community. The mission comes alive through the school's interdisciplinary curriculum, theme-based projects, community partner connections and shared values.

The mission of CCLCS is to foster intellectual development and academic achievement by providing a school centered on challenging, interactive learning experiences that consistently bridge traditional disciplines. Employing an interdisciplinary approach which uses the natural resources on Cape Cod and which are developed and implemented with local resource partners, the school's approach breaks down the boundary between school and community, practical and theoretical. As students develop basic problem-solving skills while studying thematic units focused in large part upon these local resources, they will recognize that real life cuts across disciplines, combines the practical and theoretical, and can be enhanced through education. Essential to the achievement of this mission is the establishment of a community of learning—a community built upon the values of personal responsibility, consideration for others, respect for the environment, academic integrity and perseverance.

The school has been successful in maintaining its focus on the central elements of the mission, throughout its first two charter terms. Instruction across grade levels and subjects is notable for its challenging interactive learning experiences that "bridge traditional disciplines." Student projects show many examples of subject and skill integration and application of theoretical and practical knowledge to solving real-life problems. School stakeholders speak of a "community of learning" that is fueled by faculty dedication, creativity and mastery of subject matter. The school's connection to the natural resources of Cape Cod shines through its heritage of community partnerships.

3. Leadership has created a supportive mentoring system that enhances the skills of new teachers and refines the capabilities of senior staff. Because the school values excellence in teaching, time and resources are devoted to this program.

School founders document that teachers are drawn to CCLCS because of its commitment to excellence in teaching. Some teachers credited their longevity at the school to a culture that grants high levels of autonomy, encourages risk-taking and creates opportunities for teachers to share ideas and practices.

With understanding that faculty change is inevitable, the school protects its investment in excellent teaching with a comprehensive mentoring system. New teachers are assigned a mentor and both commit to "formal" weekly meetings that are structured around content and pedagogy. Mentors observe and coach instruction, help teachers internalize content standards and assessment rubrics and record progress. They help them amass knowledge of the rich curriculum, community resources and the partners.

The school's professional development coordinator (who also teaches) guides the mentoring program, which spans three years and is afforded dedicated time built

into the school's schedules. In addition to the weekly meetings between mentors and mentees, teachers described mentoring as a daily process, with quick teacherto-teacher interactions. The professional development coordinator also conducts formative assessment (observations) along with mentors and senior teachers. One member of the leadership team stated: "Our mentoring system is a reaction to what we saw at other schools that looked good on paper but didn't work. Ours is the polar opposite to the closed door."

In general, the faculty was enthusiastic about the mentoring opportunities and the amount of time used for subject and grade level planning. The school schedule allows twice weekly faculty meetings/work sessions and teachers squeeze out additional time between instructional assignments. The school's writer-in-residence helps teachers master "writing across the curriculum" skills by coaching grade-level teams and individual teachers. While financial support for external professional development is modest, teachers reported that they have been able to access these resources when necessary.

With few exceptions, the faculty teaching core subjects are certified in content areas and hold advanced degrees. Teachers without certification are pursuing completion. The school has set a goal of all teachers achieving the NCLB "highly qualified" rating according to Massachusetts guidelines.

One former board member and several faculty members predicted that the school risks losing more veteran teachers because overall compensation, especially benefits, has not kept pace with faculty expectations. The Board has given faculty compensation high priority in its strategic plan.

### 4. The school seeks and maintains a wealth of community partnerships to extend learning into the civic, cultural and environmental life of Cape Cod.

School-community partnerships are notable in number, variety, longevity and depth of experiences offered to students. The commitment to community partnerships stems from the goal stated in the mission statement, to employ "an *interdisciplinary approach that utilizes the unique natural resources on Cape Cod and is developed and implemented with local resource partners, breaking down the boundary between school and community.*" The school has documented numerous partnerships with organizations and individuals involved in natural science, wild life, environmental science, historic museums, performing and visual arts, community service, civic life, cultural exchanges, and commerce. CCLCS provides the time, commitment to the idea, and flexibility in scheduling and space to make these partnerships possible.

During interviews, community partners recounted that their involvement with the school resulted from overtures by teachers, board members or parents. One faculty member said that civic engagement is primary and trust and neighborliness is the glue that holds things together. Another added, "You contact

one person who passes you along to another. That's how it works on the Cape. What we have now is a heritage of partnerships."

Descriptions of just a few of partnerships follow:

The director of Big and Small Puppet Works described an interdisciplinary project completed last year with art, language arts, music and science classes. Students worked on creating giant puppets, writing poetry pieces, learning music and presenting a performance around a Missa Gaia theme. Building on past success, this year's project will focus on stories from the Great Flood and join with the school chorus to present a double bill of classical and modern music.

The director of the Chatham Chorale conducts two choruses at the school, which she sees as a way to build a base of singers for Cape Cod's future. She has recently begun a program at a neighboring middle school and plans to offer joint workshops for 8<sup>th</sup> graders from both schools in the spring.

The director of a Council on Aging described programs where the students met regularly with elderly citizens for recreation and conversation. In the first year of this program, CCLCS students painted portraits of the residents which are hanging in the retirement home.

A former board member has contributed his expertise for the school's committee to find or build a "green building" as a permanent school facility. He has organized student field trips through a "green" house built with recycled, low impact materials and using renewable energy.

As a final shining example, a recent high school graduate and CCLCS alumni has leveraged her experience in Roots and Shoots into creating the One World Youth Project, a non-profit organization that involves 22 schools, coordinated by five youth ambassadors. Through the project, CCLCS is linked with a sister school in Tanzania. In order to communicate through technology, the Tanzanian school needs a \$1,500 internet connection. Students from that school have produced art, which CCLCS students are selling on the Cape to raise the needed funds.

## 5. Within an intimate, unique and challenging facility, the school community supports a climate that nurtures students' academic, emotional, physical, social, aesthetic and moral development.

Since its inception, CCLCS has leased classroom and administrative space in a strip mall in a commercial section of Orleans. With renovations and expansions to the original space, they have created an educational facility with a unique configuration and character. Many classrooms are small and some have limited or no natural light as the building is built into a hillside. Because some classrooms are nested with each other and others separated by thin walls, noise "bleed" is a negative factor.

Teaching materials, natural artifacts and student work in progress are abundantly visible within classrooms, open storage areas and common passageways. Student movement between classes indoors and outdoors is usually quiet and orderly. The colorful murals that greet visitors are visual signatures of students past and present. Instead of lockers, students are assigned open cubbies for personal belongings, with very few incidences of misappropriations.

The limitations of the facilities are offset, in part, by the school's frequent and varied trips into the community. Off-campus learning, integral to the school's mission, is embedded across the curriculum. The seashore and dunes are science laboratories, cemeteries are used to study history, timber framing is a vehicle for learning math and measurement, and museums bring students face-to-face with art and natural history.

The close quarters provides ample opportunity for informal interactions among students and faculty. However, many stakeholders weighed in on the drawbacks of the current facility. Leasing commercial space is costly and builds no equity for the future. With enrollment now capped at 180 students, CCLCS is unable to expand and gain another class per grade level. Presently, there is no single room large enough to accommodate all students, faculty and parents; and the school must borrow space from community partners for large scale meetings and events. There is no recreational/physical education space, cafeteria or auditorium. Faculty and staff office space is minimal and students spoke wistfully of classrooms with windows.

Within the past two years, the school has been able to acquire two portable stations of wireless laptop computers, which substantially increased the students' access to internet resources and other technology. The small school library is centrally located with many of its resources housed in classrooms.

The Board, school leadership, faculty and community partners are engaged in strategic action to secure a more permanent facility, with some aspiring to a "green" building and campus that would provide optimal space while reflecting the school's strong commitment to ecology and resource sustainability.

## **RENEWAL QUESTION 3:** IS THE SCHOOL FAITHFUL TO THE TERMS OF THE CHARTER?

The school has remained true to its charter and is earning regional, national and international recognition. This school community empowers middle school students to span boundaries of age, place and experience as community activists and global citizens. Board members, administration, teachers and community partners affirmed that CCLCS has remained true to its charter. The school has a rich curriculum that supports mission elements, a coherent system of internal and external assessment and has demonstrated success in student achievement and in student development in non-academic areas.

CCLCS's annual reports provided ample evidence of staff, student, Board and alumni activities for identifying and disseminating best practices and also enabling students to act as full citizens in their global and local communities. These achievements reflect the school's belief that middle school students have a learning capacity that is often underestimated. A sample of recent student accomplishments, enabled by the faculty and school, are listed below.

- CCLCS students hosted the 2004 Jane Goodall Institute's North American Summit and expanded Roots and Shoots environmental chapters to high schools. The summit included hosting 120 youth leaders and adult chaperones for 6 days and feature a one-day public fair celebrating youth activism.
- Alumni, students and school staff collaborated to form the Cape and Islands Youth Council for Sustainability, a youth led program for middle and high school students that has won several environmental awards. In 2003, the Council produced a "Sustainability Action Plan" for the Cape and an accompanying "sustainability starter kit."
- Two CCLCS students presented a paper at the World Sustainability Conference in South Africa.
- CCLCS 8<sup>th</sup> grade science students presented their scientific essays on Pleasant Bay at the Friends of Pleasant Bay annual meeting in July, 2004. Sixty essays have been bound for publication at the local libraries.
- Each year, students prepare to be cultural ambassadors through a Japanese Home Stay student exchange program. One year, CCLCS students visit Japan and stay with host families, while the next year, Japanese students stay with CCLCS families.
- Students publish in the *Write Connection*, a newspaper that was established by the CCLCS Writer-in-Residence for students throughout Cape Cod. This program has grown to feature writing by students from five districts and is distributed through the region.

Samples of recent faculty achievements include the following:

• CCLCS science staff wrote and piloted a curriculum on alternative energy through the Massachusetts Renewable Energy Trust for

publication in the region, obtaining additional funding for interactive programming at three area middle schools.

- Social Studies faculty have published two journal articles in *Education about Asia*, three web-based publications and two educator resource books in the last several years.
- Math faculty work collegially with the local town district to share best practices, develop curriculum links and strengthen programming across the region's middle schools in preparation for high school.
- CCLCS staff has facilitated regional mentoring groups for teacher candidates of National Board for Professional Certification for over three years.

### RENEWAL QUESTION 4: IF THE SCHOOL'S CHARTER IS RENEWED, WHAT ARE ITS PLANS FOR THE NEXT FIVE YEARS?

### The school's new accountability plan sets forth measurable goals for school and student performance that build on its successful path and chart a course for the future.

CCLCS will finish its 10<sup>th</sup> year on solid ground for renewal. According to its Renewal Application, the school foresees continued commitment to the fundamental tenets of its charter. Growth from 180 to up to 240 students is a realistic goal should space become available. The school's strategic plan proposes continued development and refinement of the curriculum, instruction, planning and assessment.

The staff and the Board will fine tune programs and connections to resources regionally and beyond that support the school's mission. They intend to formalize their links with up to 400 CCLCS alumni and gather data about their preparation for and performance in high school and college.

While parent and community volunteerism is already strong, they will work to maximize this resource by hiring a part-time volunteer coordinator. As a learning community, the stakeholders will sustain a vision of becoming a "green" school and secure the land and resources necessary to build a permanent campus.

The 2004-2005 School Accountability Plan is clear and measurable. Objectives for the school will ensure organizational viability through goal setting and board support to administration and teacher-leaders; sound financial practices; and visibility in the community to ensure maximum enrollment. Student performance goals are academically ambitious but appropriate to the school's high level of past academic achievement.

The school has submitted evidence of positive financial audits and sound fiscal management. The Board has given salary and compensation enhancement high priority in order to sustain the experienced and committed faculty. In addition, the school has charged a free-standing CCLCS foundation to secure private funding and public grants necessary to "grow the mission."

### **APPENDIX A** SCHEDULE OF THE RENEWAL INSPECTION VISIT

### Day One: October 31, 2004

2:00 - 4:30	School tour School presentation by school leaders and founders: history and character of The Lighthouse School	r, culture
4:00 - 6:00	Team meeting 1. Share findings and hypotheses from Advance Organize 2. Develop questions 3. Review schedule	irs
6 pm +	Reflection	

### Monday, November 1, 2004

8:00 - 8:30	Review task assignments			
8:30 – 9:15	Parent group interview			
9:15 – 10:15		0	rades 6, 7, 8	
Instructional		C	ore Subjects	
Observation				
10:20 – 11:20		(	Grades 6,7,8	
Instructional		C	ore Subjects	
Observation				
11:30 – 1:00		1. Curriculum	Review	
			sessment Review	
		3. Board Doc		
1:00 – 2:00		Grade 6,7,8 – 0	Core and specialty subjects	
Instructional				
Observation			1	
2:00 – 3:00	Student	Specialty	Teacher Meeting	Student
	Focus			Focus Group
	Group	· · · · -		
3:15 – 4:00	Leadership Team group interview			
4:00 - 5:00	1.Code Notes			
Code Notes	2. Document Review			
Group Reflection	3. Team Deliberation			
5:00 - 6:00		Board Group Interview		
6:00 – 7:30		Team deliberation a	nd preparation for next day	

### Tuesday, November 2

7:45: 8:15	Feedback to leadership		Interview prepara	tion
8:00 – 9:15	Teacher focus group			
9:15 – 10:00 Classroom Observation	6,7,8 grade classroom observation Interviews with faculty and staff			
10:00 – 10:45 Classroom Observation		6,7,8 grade class Interviews with f		
10:45-11:30 Classroom Observation	6,7,8 grade classroom observation Interviews with faculty and staff			
11:30 – 12:45	Curr	iculum review/stude	ent work documen	tation
12:45 – 1:30	Observations and Interv	views		Faculty/staff interviews
1:30 – 2:15	Seminar Observation	Student focus	s group	Seminar Observation
2:15 – 3:15	_	Student focus	group	
3:15 – 4:00	<del>ر</del>	Teacher focus group		
4:00 - 7:00	Team deliberation and preparation			

### Wednesday, November 3

7:45 – 8:50	Feedback to the leadership Team	Preparation for day Document review		
8:55 – 9:15 Homeroom observation		6, 7, 8 Classrooms		
9:15-10:15	Staff interviews		Final observations	Document review
10:30 – 11:30		Community partners focus group		
11:30 – 12:15	Follow-up	Follow-up	Follow-up	Follow-up
12:15 – 4:00	Team deliberation Findings preparation			
4:00 - 4:30	Oral findings pre	Oral findings presentation		
4:30 - 6:00	Team debriefing Departure			

### **APPENDIX B**

### Ranked Comparison of Cape Cod Lighthouse Charter School (CCLCS) and Cape Cod Middle Schools

The rankings below are based on the percentage of students scoring 240 or above on the 2004 MCAS, putting them in the Proficient or Advanced category and accruing 100 points toward the Proficiency Index.

Rank	6 <sup>th</sup> Grade Math	% students
		240 or above
1	Oak-Ridge-	76
	Sandwich	
2	Chatham	70
3	Wing-Sandwich	69
4	Nauset	66
5	Wixon	61
6	Forrestdale-	60
	Sandwich	
7	Falmouth	59
8	Harwich	58
9	CCLCS	57
10	Truro	50
11	Mashpee	47
12	Mattacheese	46
13	Barnstable	46
14	Provincetown	36
15	Bourne	26

Rank		% students	
	Math	240 or above	
1	CCLCS	70	
2	Wing-Sandwich	65	
3	Nauset	58	
4	Oak Ridge-	57	
	Sandwich		
5	Falmouth	49	
6	Wixon	45	
	Sandwich		
7	Chatham	44	
8	Hyannis	43	
9	Bourne	39	
10	Provincetown	37	
11	Forrestdate-	34	
	Sandwich		
12	Mattacheese	33	
13	Harwich	30	
14	Mashpee	20	

Rank	7th Grade	% students
	Language Arts	240 or above
1	Oak Ridge – Sandwich	94
2	Forrestdale - Sandwich	86
3	Nauset	85
4	Matttacheese	83
5	Provincetown	83
6	Wing-Sandwich	82
7	Chatham	79
8	CCLCS	77
9	Barnestable	72
10	Bourne	70
11	Harwich	67
12	Falmouth	67
13	Wixon	66
14	Mashpee	64

Rank	8th Grade Science and Technology	% students 240 or above
1	CCLCS	64
2	Wing-Sandwich	61
3	Nauset	60
4	Bourne	49
5	Mashpee	43
6	Falmouth	38
7	Barnestable	38
8	Chatham	37
9	Oak Ridge	36
10	Forrestdate - Sandwich	36
11	Harwich	32
12	Wixon	31
13	Provincetown	29
14	Mattacheese	21