

ANNUAL REPORT

2003-2004

CAPE COD LIGHTHOUSE CHARTER SCHOOL

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Cape Cod Lighthouse Charter School Mission Statement

The mission of the Cape Cod Lighthouse Charter School is to foster intellectual development and academic achievement by providing a school centered around challenging interactive learning experiences that consistently bridge traditional disciplines.

Employing an interdisciplinary approach that utilizes the unique natural resources on Cape Cod and is 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.

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Executive Summary

The Cape Cod Lighthouse Charter School is a public middle school serving students in grades six, seven, and eight from throughout Cape Cod. It was one of the first 14 charter schools approved in Massachusetts and opened its doors in September 1995. CCLCS now has completed its ninth year of operation, its fourth year in its second, five-year charter.

Cape Cod Lighthouse Charter School has demonstrated success in its academic program. The program is well grounded in the Massachusetts frameworks and enhanced by a variety of creative and innovative strategies that reflect the philosophy of our mission and that are quantified in our Accountability Plan. Evidence of our success is presented here in the form of standardized test results, internal assessments, student performance benchmarks, authentic achievement, and high school placements.

The Cape Cod Lighthouse Charter School is a viable organization. Governance is provided by a stable, active, and competent Board of Trustees guided by an established infrastructure that ensures responsible management. The administrative structure is clear. Faculty members accept significant responsibility for decision-making and daily operations of the school, and turnover is minimal. Enrollment is strong with high demand for limited spaces; attrition is minimal. Financial operations are in full compliance with all applicable standards; financial management is responsible; and the school is financially stable.

The Cape Cod Lighthouse Charter School is faithful to its charter. Beyond academic achievement and intellectual development, the school is committed to experiential, project-based programs; integrated studies; utilization of community resources; environmental studies; and the development of ethical values. Much of what we do touches on several of these objectives, and as we illustrate the achievement of these objectives, with reference to our Accountability Plan Goals, throughout this report, there will be frequent reference to key programs.

As we approach our tenth anniversary year, we seek to refine our program, to increase and diversify our dissemination activities, to become an exemplary charter school, and to achieve a position of leadership in middle school education.

2001	57	245	21	42	32	5
2000	56	236	7	39	38	14
Grade 8 English LA						
2001	57	251	5	91	4	0
2000	56	246	2	86	11	0
Grade 8 Science and Technology						
2003	59	237	8	36	41	15
2000	56	240	4	59	30	7

Comparative analysis of MCAS results shows that CCLCS student performance ranks favorably among local schools, with averaged scaled scores consistently matching or above composite scores from sending districts.

Comparative Analysis of MCAS Results By Proficiency Index

2003	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

Comparative Analysis of MCAS Results By Average Scaled Scores

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

2001	Gr. 6 Math	Gr. 7 ELA	Gr. 8 ELA	Gr. 8 Math
CCLCS	238	248	251	245
Composite	239	245	247	239
State	233	239	242	233

2000	Gr. 8 ELA	Gr. 8 Math
CCLCS	246	236
Composite	227	211
State	240	228

Summary of Performance Relative to Accountability Plan Goals

The Success of the Academic Program

As discussed in the summary of internal and external assessments, the academic program at CCLCS is clearly a success. For the past four years, the Cape Cod Lighthouse Charter School has been working with an accountability plan that was appropriate for the school at the time that it was written and that has served the school well. It is divided into two sections, one of Student Performance Objectives and one of School Performance Objectives. Over the years, the achievement of many of these objectives has become a normal and expected part of the school's every day program. The main academic Student Performance Objectives from the school's Accountability Plan are listed below

Accountability Plan, Academic Goals and Objectives

Goal # 1: Students will strengthen basic skills and develop higher order thinking skills through a program of studies that stresses thematic units focused on local resources.

Objective 1. Students will strengthen **literacy skills** while acquiring higher-order thinking skills through an emphasis on writing and reading across the curriculum.

Objective 2. Students will strengthen basic **mathematical skills** while acquiring higher-order mathematical concepts through an emphasis on building connections and applying mathematical ideas across individual math subjects.

Objective 3. Students will develop the basic skills and patterns of thought necessary for acquiring **scientific literacy** with an emphasis on the application of the concepts of science to real world situations.

Objective 4. Students will develop an understanding of the world, its people, their **cultures, and histories** through examining both past and present societies and reflecting upon the impact of these cultures in the world today.

Objective 5. Students will develop a foundation for the successful mastery of a **world language**.

Clearly, students' persistently high performance on MCAS tests in math, English Language Arts, science and history and social science demonstrates that Objectives 1 through 4 are being met. Students' year-to-year improvement on CAT-5 Tests in math and English Language Arts provides further evidence that Objectives 1 and 2 are being met. Student performance on internal assessments designed around the school's rigorous curriculum and Student Performance Benchmarks further reinforces these conclusions. Finally, student high school placements, based on student grades, teacher recommendations and, in some cases, placement tests, provide further evidence that the CCLCS academic program is a success.

This occurs in the daily classroom experience and through the school's seminar program. Often, projects used to bridge traditional disciplines also serve the mission element of "breaking down the walls" and working with local resource partners.

- **The Seminar Program** - The school's seminar program, a cross-grade and cross-discipline system of classes, is pivotal to the school's academic mission. All students participate in the seminar program, which is taught all three terms, for ninety minutes twice a week. Taught by teachers and sometimes parents and community members, the seminar program allows teachers to connect with personal pedagogical passions outside of, or in combination with, traditional disciplines. The seminars also permit students a degree of choice to work in areas of interest or need that they would ordinarily not examine as closely within the regular curriculum. Seminars often incorporate work with a local resource partner, i.e., water quality experts from local water departments, naturalists from the Cape Cod Museum of Natural History, the Audubon Society, or the Cape Cod National Seashore, or area scientists, writers, and visual and performing artists. This close alliance with experts living and working in the surrounding communities further strengthens our academic program by providing students with opportunities to explore within their communities real-life applications of their learning. Frequently, the work begun in a seminar class carries over into an extracurricular activity that enhances the lives of teachers, students, and community members.
- **Water Quality Monitoring** - Students and teachers collect water quality samples from Lonnie's Pond in Orleans as part of the monitoring program overseen by the Pleasant Bay Alliance in this officially designated "Area of Critical Environmental Concern". Ours is the only one of 16 collection sites monitored by children, and collectors follow professional scientific protocol. The program began as a seminar in 1997, and has continued as a special program ever since.
- **Mock Trial Seminar** - Students involved in the Mock Trial Seminar compete each spring in the Southeastern Massachusetts Mock Trial Competition. Each year up to 15 students work with local attorneys to train for competition against middle schools throughout Southeastern Massachusetts. Students hone reading, writing and speaking skills as they prepare for trials. CCLCS students have won the competition 3 out of the last 4 years, and were runners up the fourth year.
- **Japanese Homestay** - Every other year, the students who participate in the Seminar on Japan take part in the Japanese Homestay for 10 days during the summer vacation. The students visit Matsuyama-machi, a town located in northwest Japan. While there, the students stay with Japanese families, eat Japanese food, and participate in cultural events, including a Japanese tea ceremony and meditation in a Buddhist temple. In alternate summers, students from the same community in Japan are hosted here with students and their families, for an introduction to American customs, culture, and the environment of Cape Cod.

- **Community Service Seminar** - For several years, students have participated in community service seminars in which they work on such projects as planting gardens and doing yard work for the elderly, and reading and providing entertainment at senior centers.

Working with Local Resource Partners: The school maintains partnerships with several local agencies. Two major outcomes have emerged from these partnerships. First, the partnerships link theoretical classroom study with onsite field research, enriching students and the learning process. Second, the surrounding communities benefit from the scientific studies and cultural undertakings of the school's teachers and students. Below are descriptions of local resource partners and the jointly shared learning experiences.

- **Center for Coastal Studies** - Since its first year, the school has had an informal relationship with the Center for Coastal Studies in Provincetown, a research center that focuses on endangered whales. The Center is a rich source of educational programs for students and teachers. This past spring the school co-hosted, along with the Center, the Jane Goodall Institute's Roots & Shoots Annual North American Youth Summit. (Roots and Shoots is an environmental club started by the Institute with over 10,000 members around the world). The school was awarded this opportunity because of its ongoing involvement in environmental issues on Cape Cod.
- **Massachusetts Audubon Society** - CCLCS has a formal partnership with the local chapter of the Massachusetts Audubon Society in Wellfleet. Students are currently studying the effects of the invasive plant species of phragmites on Cape Cod.
- **Cape Cod National Seashore** - CCLCS works with the National Seashore in many ways ranging from one-time visits from rangers to long-term project work. This past school year a ranger worked with sixth graders on their monthly site visits. Last summer, a CCLCS science teacher worked with seashore and NASA scientists to develop salt marsh research protocol. Teachers and students used that protocol to begin a long-term study on the effects of tidal flow restoration on a degraded salt marsh in Eastham.
- **Academy of Performing Arts** - The Academy and CCLCS have joined forces in several activities. Recently, the school has focused on integrating dance, movement, and drama into the academic curriculum through participation with guest teachers from the Academy. This year students are participating in an after-school program, "Common Time", initiated by the Academy, in which the students work on writing, performing, and art projects with seniors from the Council on Aging. This summer, a partnership allows the Academy to use CCLCS classrooms in exchange for our use of their studio space during the school year.
- **Cape Cod Museum of Natural History** - Naturalists from the museum work with the 6th grade on site visits; and CCLCS teachers and museum educators collaborated

on several projects, including an exhibit on the plankton in Pleasant Bay in the fall of 2000.

- **Cape Museum of Fine Arts** - Every year the 7th and 8th grade classes begin the school year with a visit to the museum. Spending the first day away from our school building reinforces our commitment to a "community of learning." The exhibitions on view stimulate and initiate writing and visual arts projects in our curriculum. Throughout the year, art, science, and writing classes view shows at the museum. It is the art teachers' goal that students and their families become familiar with art museums and initiate trips of their own.
- **Provincetown Art Association and Museum** - In 2003 and 2004, the students in the Mural Seminar were invited to curate a show from the collection of the Museum, as part of their Student Curatorial Program. Their written responses to the works they selected were included in the exhibition checklist. They were also invited to exhibit their own work as well.
- **The Friends of Pleasant Bay**- This past year CCLCS received a grant from the Friends to institute a scientific essay program that focuses on students' experiences on Pleasant Bay. The grant paid for a student kayak trip and for writing mentors to work with students. In July 2004, students presented their work at the Friends' Annual Meeting.

A Community of Learning: One of the unique aspects of our school's curriculum is the way student learning is embedded in the concept of community. The charter states: *"Essential to the achievement of our 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. ... Lighthouse School will be a focus for activities which involve parents and community members, as well as teachers and students, in the education of our younger citizens."* Through the following all-grade or all-school activities, the concept of community has been constantly strengthened:

- **All-School Overnight at Cape Cod Sea Camps** - Every October, the entire school community participates in an overnight camping experience at the Cape Cod Sea Camps nearby in Brewster. The primary purpose of the overnight is to foster a sense of community early in the year. Over two days and one night, students are randomly grouped across grade levels so that students become familiar with teachers and students in different grades. Parents assist as group leaders, and all family members are invited to a spaghetti dinner. Teachers lead the morning and afternoon activities, a mix of academic and recreational activities revolving around a central theme.
- **The School's Interscholastic Sports Program** - Built upon parent volunteers, the school's interscholastic sports program has become an integral part of school life for many students. Nearly half of the eligible (grades 7 and 8) student body plays on the school's girls' and boys' soccer, basketball, baseball, softball, field hockey and

cheerleading teams. The school has a policy of "no-cuts" so that all students who desire to play a sport can use these middle school years to become proficient. Parents support the teams through coaching, driving vans, and helping out with practices.

The school pays a teacher a stipend for taking on the responsibility of Athletic Director, and we host a weekend basketball tournament for ten area middle schools each winter. Having the teams has provided the school with a visible identity in the surrounding communities and has instilled additional pride in students for their school. Students become closer with peers and learn values such as sportsmanship, responsibility, and how to be an integral part of a team. It also builds qualities such as perseverance and integrity that assist students with their academics.

- **Extracurricular Activities** - The school offers many activities after school: *Roots & Shoots*, an environmental club that not only raises money for environmental concerns, but also sends students and chaperones to attend the North American Youth Summit each year. The students return ready to help others learn respect for the environment and all living things. This year the school was invited to host the 2004 Summit on Cape Cod. *Science Club*, a subset of Roots & Shoots, affords students the opportunity to do field research, most recently on three projects: coastal erosion, water quality monitoring, and salt marsh studies. For the past several years, the school has hosted *The Write Connection*, a journal of writing published several times a year by middle and high school students from all over the Cape and Islands. This project was initiated by our students and the school's writer-in-residence. Other extracurricular activities are *Magic Club*, *Mountain Biking Club*, and *Walkers Club*. At any time, students or parents can propose the formation of a new team or club. In recent years, this process has led to the formation of cheerleading and field hockey teams. All of these activities provide additional ways for students to become members of their school community.
- **Ropes Course** - In an effort to build community on a smaller scale, each sixth grade homeroom visits a local ropes course with their teacher, our recreation director, and parent volunteers. The whole group addresses respect, teamwork, leadership, risk, communication, and community spirit on both low and high challenge elements. Dialogue on these topics occurs throughout the day, then upon returning to the school, students reflect on the experience in writing. The hope is that all participants are able to "bring the adventure home."
- **7th Grade Dune Trek** - Each spring, 7th grade students and teachers complete a four-mile dune trek around Great Island in Wellfleet. The dune trek fulfills two purposes: (1) it promotes a sense of community and identity for the seventh grade class; and (2) it helps students to gain a direct appreciation and understanding of the Cape's unique and precious natural resources.
- **8th Grade Class Trips** - The 8th graders participate in a number of activities reserved especially for their final year. In the fall, they journey to the White Mountains for a two night camping and backpacking trip for environmental study with their teachers and Appalachian Mountain Club staff, and a "winter conditions"

stay in an A.M.C. hut. In the spring, the students travel for five days to Gettysburg and Philadelphia, for firsthand, in-depth experience at the sites where so much of their study of American history, particularly the Civil War, took place.

- **Student as Community Member** - The concept of community is stressed to students within the school day. All indications are that most students understand and value the notion. Few serious behavior problems exist. There is very little vandalism. Class meetings are used as one means to discuss issues and solicit student opinions on how to rectify a problem. Security of personal belongings is not much of a problem in the school. Students have open cubbies instead of lockers, and in spite of their unsecured nature, there have been very few thefts. Each morning students meet for 20 minutes in homeroom groups to discuss issues and to review daily activities. The School maintains an active elected student government group and a peer mediation program.

Innovative Teaching Strategies: CCLCS teachers constantly use space, the curriculum, and community resource partners to provide highly innovative ways of teaching students their subject matter. Several examples are described below:

- **Sixth Grade Site Visits** - The 6th grade site visits make up a year-long interdisciplinary experience, which fulfills a portion of the charter: *"to interact with the environment of Cape Cod, to better understand it."* For one afternoon each month the 6th grade sets out in three groups, accompanied by parent volunteers and naturalists, to outdoor sites. Habitats of pond, salt marsh, and beach have all been studied. Students work in small groups with a parent advisor and practice honing their skills in data recording and observations. Using compass bearings, taking temperatures, mapping small sites, drawing transects, measuring dune profiles, and estimating wind velocities are among the many science skills practiced each month. Lessons in tides, dune formation, changes in the hours of daylight, and animal migration are also discussed back in the classroom to further the understanding of the whole picture at the barrier beaches. Slide shows and guest speakers illustrate further to the students the history of the regions they are studying. The changes students see in one month's time are often dramatic. Students use art and writing skills to communicate the observations made at their sites, and to make predictions of what they might encounter at a future site visit. Students write descriptive paragraphs and poems inspired by their experience. Digital cameras allow us to keep a video history of the year's changes. Each season a plankton tow is taken at each site and students use microscopes to observe and identify the rich varieties of plankton just off our barrier beaches. At the end of the year student groups make presentations of their observations to the whole class. Communications skills are stressed. Many students create graphs, murals, videos, multimedia pieces and plays to show the rest of the students their creative approach to monitoring changes at their site.
- **The School's Physical Education Program** - The nontraditional school space has spawned nontraditional programs. For example, in lieu of a school gym, the phys ed program takes place mostly in the larger community. The program emphasizes mastery of lifelong, healthy, recreational activities. Students not only learn traditional

Mary Lyttle
East Orleans, MA
Realtor / Caterer
Parent

July 2003 – June 2006
Nominating Committee
Site Committee

Sean O’Neil
Brewster, MA
CCLCS Executive Director

July 2002 – June 2005

Emily Paul
Boston and Chatham, MA
Accountant
Friend

May 2002 – June 2005
Finance Committee

Andrea Reed
Orleans, MA
Arts Administrator
Parent

August 2003 – June 2006
Site Committee

Rob Reisner
Brewster, MA
Commercial Banking
Parent

November 2000 – June 2003 – June 2006
Treasurer, Board of Trustees
Finance Committee
Executive Committee

Josh Stewart
Orleans, MA
Math Teacher

September 2003 – June 2004
Faculty Representative to the Board
Site Committee

Bill Wibel
Brewster, MA
Educational Consultant
Friend

February 2004 – June 2007
Executive Committee

Seth Wilkinson
Orleans, MA
Conservation Consultant
Friend

November 2001 – June 2004
Site Committee Chair

Benjamin E. Zehnder, Esq.
Orleans, MA
Attorney at law
Friend

November 2002 – June 2006
Personnel Policy Committee
Executive Committee

Summary of Major Policy Decisions made by the Board of Trustees

The Board of Trustees remained busy throughout the year with several items of important business, some of which may be described as major policy decisions and some simply as elements of responsible governance. Early in the year, the Board set goals relative to the following areas:

- Development of a new Accountability Plan
- Renewal of the School's Charter.
- Facilities
- Finances
- Strategic Plan implementation

In addition, the Board made a decision to put high priority on improving faculty salaries and benefits.

Accountability Plan

In preparation for the school's Charter Renewal application and recognizing that the school's current Accountability Plan was well established and had become an on-going part of the program, the Board worked with faculty and administration on the development of a new Accountability Plan that is focused on measurable outcomes that reflect the effectiveness of the academic program, the viability of the school as an organization, and faithfulness to the school's charter. After many revisions, the Board voted to accept the new Accountability Plan and it was submitted to the Department of Education for approval as part of the Charter Renewal application.

Charter Renewal

The school has now completed the fourth year of its second, five-year charter. Completion of the Charter Renewal application has been important business for the faculty and for the Board throughout the year. The faculty and staff participated on multiple sub-committees to work on sections of the application, and the Board discussed progress on the project at each of its monthly meetings. Trustee committees and individual trustees provided appropriate input, and the final product is the collective work of the adult school community.

Facilities

The school is currently in the fourth year of a five-year lease at Bayberry Square, an underground strip mall in Orleans, MA. The flow of space is interrupted by other tenants, and the school would benefit from more space than is available. In an effort to provide for the school's future, the Board pursued three options during the course of the year. One was to lease space in one of the two elementary schools in the neighboring Town of Brewster. Another was to purchase Bayberry Square and expand within the existing facilities. The third was to renew our current lease with options to expand. The Brewster School Committee ultimately voted not to lease out any space in its buildings; a developer bought the mall; and the Board voted to enter a new, three-year lease on the existing premises.

