

Maine Charter School Commission

September, 2017

On June 20, 2017, an announced on-site visit was made to the Maine Academy of Natural Sciences public charter school. The Maine Charter School Commission (MCSC) review team of 3 members was accompanied by the MCSC Executive Director, and MCSC Director of Program Management. The visiting team held interviews with school leadership, and the school's Governing Board. They also reviewed data provided by the school. Documents provided by the school are available from the MCSC office. Information gathered from documents, interviews, and on-site observation was used to determine the extent to which the school has met its contracted performance targets.

Commission Member, Review Team Chair	John Bird
Commission	Jana Lapoint
Commission	Nichi Farnham
MCSC Executive Director	Bob Kautz
MCSC Director of Program Management	Gina Post

The Maine State Charter School Commission will provide thoughtful stewardship in authorizing and monitoring public charter schools consistent with State statutes to create unique, high-quality learning options for Maine students.

Maine Charter School Commission

ANNUAL MONITORING REPORT 2016-2017

September 2017

Section 1: School Overview

School Name	Maine Academy of Natural Sciences
Address	16 Prescott Drive PO Box 159 Hinckley, Maine

Board Chair	Tom Edwards
Principal	Tonya Arnold
Director of Curriculum and Assessment	Emanuel Pariser

Year Opened	2012-2013 school year
Years in Operation	5
Number of Sending Districts	27
Grades Served	9-12
Number of Students	147 (October 1, 2016 "count day")
Teacher – Student Ratio	1:14

Mission	MeANS offers the public a student centered, staff guided high school whose purpose is to inspire and engage students. We welcome a diverse range of students including those whose previous learning environment has not inspired them to fulfill their potential as learners, those who have become profoundly disconnected from their education as well as those who have a passion for the school's themes of agriculture, forestry and sustainability.
Vision	To encourage students to re-engage with their education. They will grow as critical thinkers and problem solvers by developing habits of heart and mind that lead them to take responsibility for their own actions, as well as for the welfare of their community.

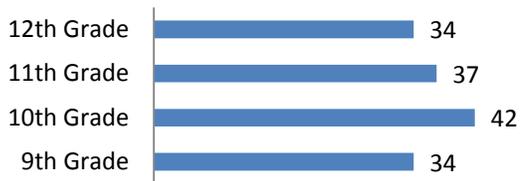
Section 2: Indicator Summary Table

Indicator	Meets Contract agreement	Partially meets	Does not meet
Student Academic Proficiency	X		
Student Academic Growth		X ¹	
Achievement Gaps in proficiency and growth between major student subgroups	X		
Student Attendance	X		
Recurrent Enrollment from Year to Year	X		
Post-Secondary Readiness	X		
Financial Performance and Sustainability	X		
Governance Board Performance and Stewardship	X		
Adequacy of Facilities Maintenance in Support of Program	X		
Transportation	X		
School Social and Academic Climate	X		
Parent and Community Engagement	X		

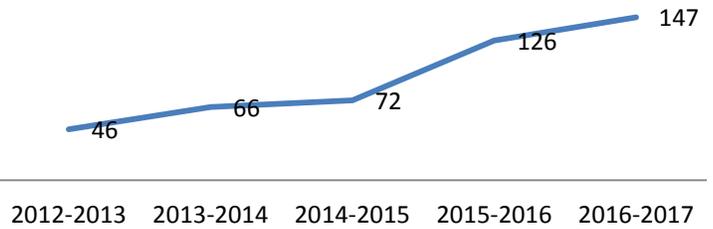
¹ 59% of math students met or exceeded the projected year's growth on the NWEA, 11 percent below the 70% target.

Section 3: Demographics

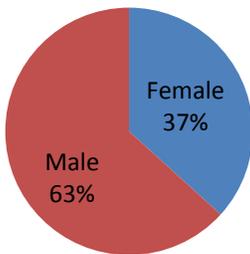
Enrollment by Grade



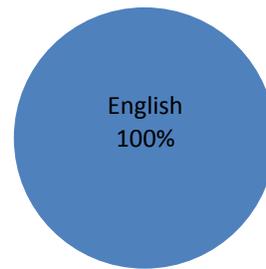
Enrollment by Year



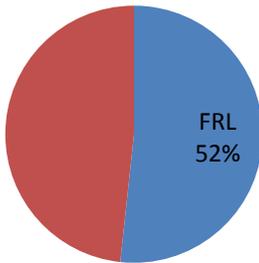
Sex



Language

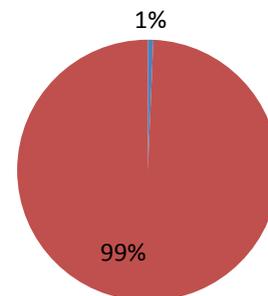


Free/Reduced Lunch

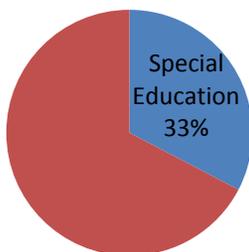


Race/Ethnicity

■ Hispanic/Latino ■ White



Special Education



Section 4: Academics

MeANS met its achievement gap and academic proficiency targets and partially met its and growth targets for the 2016-17 school year.

Targets:

- State assessments: Get baseline on MEAs
- School-developed assessments:
 - Standards Completion
 - A. 45% of students are completing standards and/or credits at the rate necessary for the year based on their annual academic planning goals.
 - B. 35% are completing standards or credits below the rate based on their annual academic planning goals. (Within 10-30% below the planned for rate of completion)
 - C. 20% are completing standards or credits at a rate (more than 30%) significantly below the planned rate of completion.
 - 70% of students in group B and C above who have attended MeANS for one or more years will complete standards at a rate closer to their annual academic plan goals; 10% more successfully in their second year, 15% more successfully in their third year, 20% more successfully in their fourth year.
 - Growth - NWEA
 - 50% of students will show a year's growth or more on NWEA math measures;
 - 50% of students will show a year's growth or more on NWEA reading measures;
 - 70% of students will show a year's growth or more on NWEA language measures;
 - Gaps in Growth – NWEA
 - 50% of students in the “far below” performance band, regardless of their category, will exceed typical national growth norms for students with their original (fall) RIT scores.

Performance:

Academic Achievement

34 of 36 (94.4%) of eligible MeANS students took the SAT in April 2017. MeANS reported scores and analysis to the Commission, but the results are not publicly reportable due to small class size and maintaining student confidentiality. MeANS met the target of setting a baseline.

Standards completion:

- 85% of students are at or above pace to complete all standards to graduate on time.
- 11% of students are below pace to complete all standards graduate on time.
- 4% of students are significantly below pace to graduate on time.

MeANS reports that some of the students who are significantly below pace to graduate on time enrolled at MeANS without any previous credits, and are going to be further behind because more standards will be required for graduation. MeANS met the target for standards completion. All students had attended MeANS for at least one year.

Academic Growth

88% of students who tested on all three NWEA assessments (math, reading, and language usage), met or exceeded the NWEA generated growth target in at least one area.

60% of students met or exceeded the projected year's growth in reading, exceeding the 50% target.

51% of students met or exceeded the projected year's growth in language usage, exceeding the 50% target.

59% of math students met or exceeded the projected year's growth, 11 percent below the 70% target.

Achievement Gaps

MeANS is working to close achievement gaps among subgroups.

Subgroups for NWEA growth:

Reading

58% of economically disadvantaged students met or exceeded target growth.

41% of special education students met or exceeded target growth.

43 % of non-subgroup students met or exceeded annual target growth.

Language Usage

39% of Economically Disadvantaged students met or exceeded target growth.

32% of special education students met or exceeded target growth.

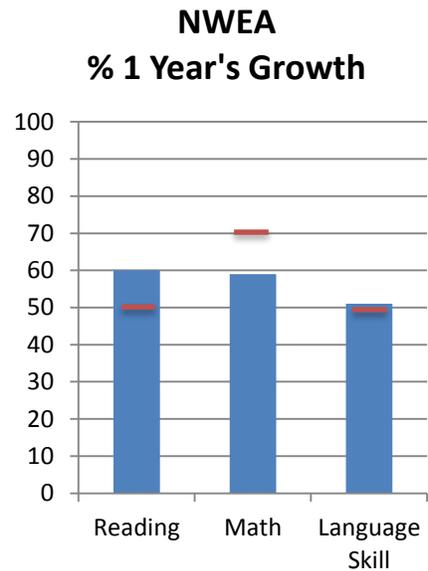
35% of non-subgroup students met or exceeded annual target growth.

Math

52% of Economically Disadvantaged students met or exceeded target growth.

44% of special education students met or exceeded target growth.

48% of non-subgroup students met or exceeded annual target growth.



50% of students in the "far below" performance band exceeded typical national growth norms for students with their original (fall) RIT scores regardless of their category. MeANS met its Achievement gap targets.

Section 5: Attendance & Enrollment

MeANS met the target of reporting on process goals.

Process Goals:

- What is our Average Daily Attendance (ADA)?
- What percentage of students have 80% or above attendance rate?
- What percent of students have three or fewer unexcused absences?
- What percent of students have re-enrolled from year to year?
- What percent of previously enrolled students enroll for more than two years?

Performance:

Average daily attendance rate at MeANS for the 2016-17 school year was 89%. 86% of students had an attendance rate at or above 80%. 83% percent of students had three or fewer unexcused absences.

The re-enrollment rate from 2016-17 to 2017-18 was 99%, and 100% of previously enrolled students have enrolled for more than two years.

Section 6: Post-Secondary Readiness:

MeANS met the target of reporting on process goals.

Process Goals:

- What percent of students with graduation as a Personal Learning Plan (PLP) goal for that year graduated?
- What percent of students who took classes at Kennebec Valley Community College (KVCC) completed them with a passing grade?
- What percent of juniors and seniors taking the full Accuplacer test pass at least three elements?
- What percent of graduates are working full-time or enlisted within 8 months of graduation?
- What percent graduates have enrolled in Post-Secondary Programs within 8 months of graduation?

Performance:

92% of students who had graduation as a PLP goal for graduation did graduate.

97% of students who took classes at KVCC completed them with a passing grade.

60% of graduates from the class of 2016 were working full-time or were enlisted within 8 months of graduation (as of June, 2017).

30% of graduates from the class of 2016 were enrolled in Post-Secondary Programs within 8 months of graduation (as of June, 2017).

MeANS no longer uses the Accuplacer. For students to enroll in concurrent enrollment courses while in high school, KVCC takes MeANS' recommendation for placement. Students without concurrent courses enrolling in a post high school program can use the PSAT or SAT test in lieu of Accuplacer.

Section 7: Governance

MeANS met its Governance targets for the 2016-17 school year.

Targets:

- Monthly Board Meetings
- Responsive Board Operations

Performance:

Meeting agendas and minutes are posted on the MeANS website.

Governing Board subcommittees include finance, academic, nominating, human resources. The Principal and Director of Curriculum and Assessment also attend the board meetings

Governing Board 2016-2017	
Chair of the Board	Dr. Gordon Donaldson
Board Member	Mara Casey Tieken
Board Member	Scott Cyrway
Board Member	Tom Edwards
Board Member	Troy Frost
Board Member	Karen Kusiak
Board Member	Pam Mattos
Board Member	Cheryl Bulmer
Board Member	Stephanie Johnson
Board Member	Mike Muir

Section 8: Administration

Performance:

During the 2016-2017 school year MeANS was again lead by the returning Principal and Director of Curriculum and assessment.

Principal	Tonya Arnold
Director of Curriculum and Assessment	Emanuel Pariser

MeANS administration reports that the shock to the school climate when adding new students to each existing cohort is a challenge. The school reports that restorative practice and community circle models, which MeANS uses, are foreign to most outside students and families. The administration continues to ramp up the training related to restorative practice and community circle models and the Building Assets Reducing Risks (BARR) practices for all members of the school community. The BARR routines served as MeANS' regular intervention structure as well as the basis for tier 2 and 3 risk review meetings. MeANS reports the BARR grant evaluator has been very impressed with the school's improvement in implementation of the key elements of the program. MeANS' goal in these areas will be to keep up the practices it has developed and continue to refine elements to find efficiencies in data management and record keeping.

MeANS' Performance Evaluation and Professional Growth (PEPG) System approved by the DOE included goals to improve student growth in reading comprehension and math in an effort to close the gaps among subgroups. MeANS administration reports this appears to be a contributing factor to the school's improvements. MeANS reports it will be setting new goals for continued growth and think about tracking cohorts of students so as not to be distracted by the changes in results due to influx of new students.

For the coming 2017-2018 school year MeANS created a position and hired a school counselor who will provide expertise in matching students with resources to support their significant social, emotional, and basic needs, guide the improvements to the school's advisory and post-secondary GEAR UP program.

Section 9: School Climate

MeANS met the target of reporting on process goals.

Process Goals:

- What percentage of freshman, sophomores, juniors, seniors show an increase in any of the three measurement areas: engagement, well-being, hope?
- What percentage of parents, students, and staff express satisfaction with school climate?
- How many incidents /reports of actual suspected harassment involving how many students?
- How many incidents/reports of school-based substance abuse; how many students referred for substance evaluation/counseling.
- What percent of students had more than 11 reminders in a quarter?
- What percent of students owed enrichment for more than five weeks in a quarter?
- Report on percentage of students on various statuses – what percentage have primarily maintained Community status, Collaborative status, Restorative Status?

Performance:

MeANS did not administer the Gallup Poll Hope Survey in 2016-2017. Instead, MeANS conducted school climate surveys of parents, students, and teachers. The table to the right indicates the percent of favorable responses from each stakeholder group on the Panorama surveys regarding school climate. Parents of MeANS students have the highest perception of school climate (74% favorable), while students at MeANS have the lowest perception of school climate (58% favorable).

Group	Percent Favorable
Parents	74%
Students	58%
Staff	70%

The table on the right, prepared by Panorama Education as part of a larger Insights Report, summarizes MeANS' strengths and areas of growth, as demonstrated by the survey results. As Panorama Education points out it's important to consider school- & community-level context in conjunction with these strengths and weaknesses when determining next steps and future goals.

During the 2016-17 school year MeANS had 0 incidents/reports of actual or suspected harassment.

MeANS reported 2 incidents/reports of school-based substance abuse and referred 4 students for substance evaluation/counseling.

MeANS met the targets of reporting on reminders and enrichment. 12% of students had more than 11 reminders in a quarter and 16% of students that owed enrichment for more than five weeks in a quarter.

MeANS met the target of reporting on the percentage of students in each status category:

- 36% Community Status,
- 32% Collaborative Status
- 32% Restorative Status

	STRENGTHS	AREAS OF GROWTH
STUDENT	<p>+HIGH PERCEPTION OF RIGOROUS EXPECTATIONS: At 66% favorable, students responded most favorably about the rigor of expectations. While this score places Maine Academy of Natural Sciences near the 20th national percentile for this topic, it's encouraging to see that student perceptions of Rigorous Expectations vary little between female and male students, as well as most grade levels.</p>	<p>-LOW STUDENT ENGAGEMENT AT SCHOOL, PARTICULARLY FOR MALE STUDENTS AND 11th GRADERS: Students report 33% favorably on this topic, placing Maine Academy of Natural Sciences 7 percentage points below the MCSC average and near the 10th national percentile. In particular, male students report 12% lower than female students. Similarly, 11th grade students report 11 percentage points below this school's average on this topic.</p> <p>-LOW PERCEPTIONS OF SCHOOL SAFETY, PARTICULARLY AMONG 9th GRADE STUDENTS: At 60% favorable, Maine Academy of Natural Sciences' average score in School Safety is 23% below the MCSC average.</p>
FAMILY	<p>+POSITIVE PERCEPTIONS OF SCHOOL FIT: Families report high scores on School Fit at Maine Academy of Natural Sciences (7% higher than the MCSC average score on this topic). At 75% favorable, Maine Academy of Natural Sciences is also near the 60th percentile nationally compared to all schools, and near the 80th percentile when compared to only high schools.</p>	<p>-LOW REPORTS FAMILY ENGAGEMENT: This topic received the lowest favorability on the family survey. At 14% favorable, Maine Academy of Natural Sciences' Family Engagement score is near the 30th national percentile. Parents of 11th grade students report the lowest level of family engagement, while parents of 10th grade students report the highest. Relatedly, family engagement is most positive among families whose students have attended Maine Academy of Natural Sciences between 1 and 2 years.</p> <p>-NEGATIVE PERCEPTIONS OF PARENTS WHOSE STUDENTS HAVE BEEN ENROLLED FOR 3 YEARS: Parents who have identified their student as having attended Maine Academy of Natural Sciences for 3 years report lower scores across all 6 topics, especially Grit.</p>
STAFF & TEACHER	<p>+POSITIVE PERCEPTION OF STAFF-FAMILY RELATIONSHIPS: At 81% favorable, Maine Academy of Natural Sciences' score is 12 percentage points higher than the MCSC average. Compared to other high schools nationally, Maine Academy of Natural Sciences is near the 99th percentile on this topic.</p> <p>+POSITIVE TRAJECTORY OF PROFESSIONAL LEARNING: While all but one topic increased in favorability between Spring 2016 and Spring 2017, Professional Learning saw the largest increase in favorability; this topic's score in Spring 2017 is 29 percentage points higher than in Spring 2016.</p>	<p>-NEGATIVE TRAJECTORY OF STAFF-LEADERSHIP RELATIONSHIPS: Perceptions of Staff-Leadership Relationships decreased by 16 percentage points between Spring 2016 and Spring 2017. While the favorability of 4 questions decreased by more than 20 percentage points, perceptions of how understanding school leaders are when challenges arise in teachers' personal lives decreased by 40 percentage points.</p> <p>-PERCEPTIONS OF FEEDBACK AND COACHING: Teachers responded least favorably when asked about their perceptions of Feedback and Coaching. At 23% favorable, Maine Academy of Natural Sciences is 11 percentage points below the MCSC average and near the 10th national percentile on this topic.</p>

Section 10: Parent and Community Engagement

MeANS met the target of reporting on process goals.

Process Goals:

- What percentage of student's parents/guardians heard from the school's advisor at least once a week during the quarter?
- What percentage of parent/guardians participated in student-led conferences (SLCs)?
- What percentage of parents and families participate and/or volunteer in school activities and events?

Performance:

93% of student's parents/guardians heard from the school's advisor at least once a week during the quarter.

98% of parent/guardians participated in at least one student-led conference. 50% participated in all 3 SLCs.

Some school activities/events had 4% of families in attendance, some had 72% in attendance and some events had attendance somewhere between 4% and 72%.

Section 11: Finances

MeANS met its goal for finances for the 2016-2017 school year.

Targets:

- Produce monthly and quarterly reports
- Quarterly reports submitted to the Commission
- Annual financial audit conducted
- If monthly financials vary more than 5% the item is flagged for governing board consideration

Performance:

MeANS produces financial reports for its governing board meetings and if monthly financials vary more than 5% the item is flagged for governing board consideration. MeANS submits quarterly reports to the Commission. An annual financial audit was conducted and reported as required. The auditor reported no findings.

Section 12: Facilities & Maintenance, Transportation, and Food Service

MeANS met its goals for Facilities & Maintenance, Transportation, and Food Service for the 2016-2017 school year.

Targets:

- School facilities meet health, safety and fire code requirements and shall be sufficient size to safely house anticipated enrollment
- Record of costs and student utilization

Performance:

School Facilities: The school building meets all public school requirements. 100% of the Moody building is in use. The new facility does not require any work. The school does plan to add additional parking.

Transportation: Approximately 85% of students used MeANS' bus transportation provided through Poland Bus Services and Good Will-Hinckley.

Food Service: Approximately 47% of students utilized breakfast service, and approximately 51% utilized the lunch service. The school reported that students and staff like the salad and sandwich bar.

Section 13: Evidence of Mission and Vision Implementation (see page 2 for mission and vision)

MeANS' Mission and Vision are evident in that the school offers the public a student-centered, staff-guided secondary education whose purpose is to inspire and engage students. MeANS welcomes a diverse range of students including students whose previous learning environment has not inspired them to fulfill their potential as learners, students who have become profoundly disconnected from their education and students who have a passion for the school's themes of agriculture, forestry and sustainability. MeANS expects to graduate young adults who have developed positive habits of heart and mind, and greater self-direction.

Section 14: Commendations and Recommendations**Commendations**

1. There was increased staff training in the areas of restorative practices.
2. The school spent considerable time and effort on planning the Threshold program, which supports the school's mission, to meet the needs of a population in Central Maine not being served.
3. MeANS has high levels of student participation in Kennebec Valley Community College Courses and strong results in these courses.
4. The BARR program has been implemented and improved.
5. Good Will Hinckley hired a president who is taking an active role in providing infrastructure at MeANS in the form of space and development.

Recommendations

1. Keep governing board section of the school's website up to date with agendas, minutes, and cancellations.
2. Continue to explore opportunities to meet the school's mission using the natural sciences and natural world.
3. Create an action plan in response to the Panorama Surveys that takes into consideration the results of
 - o Feedback and coaching in relation to the school's Performance Evaluation and Professional Growth (PEPG); and
 - o Student engagement. While the MCSC has seen information otherwise regarding student engagement at the school there should be some investigation into the recent results.