



Maine Academy of Natural Sciences

13 Easler Road, P.O. Box 159, Hinckley, ME 04944



ANNUAL MONITORING REPORT 2020-21
October 2021



Mission

The Maine Academy of Natural Sciences (MeANS) is a public charter high school that inspires and engages students through project-based, student-centered instruction immersed in the natural sciences of Maine with a focus on agriculture, forestry, and the environment. MeANS challenges all students to connect with their education to grow as individuals, interact with their communities, and lead fulfilling lives.

Values

Respect: With an emphasis on honoring differences, MeANS encourages students to be compassionate and empathetic. Faculty, staff, and students employ restorative practices for community building and conflict resolution.

Responsibility: Our individualized instruction builds confidence and empowers students to take ownership of their education. Skills such as self-advocacy and goal setting are developed alongside a commitment to helping others.

Community: MeANS connects with students and families through close relationships with advisors, teachers, and administrators. Students are expected to contribute positively to the school and are encouraged to take advantage of the larger learning context through volunteerism, internships, and college courses.

Governing Board

Cheryl Bulmer, Board Chair
Scott Byrd, Board Vice Chair
Cheryl Mercier, Board Secretary
Dr. Michael Muir, Board Member
Sally Beaulieu, Board Member
Kimberly Patnode, Board Member

Shannon Webber, Board Member
Jesse Wechsler, Board Member
D. Whitney King, Board Member
Robin Cyr, Board Member
Dana Doran, Board Member
Anna Perkins, Board Member

Leadership Team

Matthew Newberg, Head of School
Danni Best, Dean of Students, MeANS

Becky Dennison, Dean of Students, Threshold
Christine Sullivan, Special Education Director

School Profile

Year opened: 2012
Years in operation: 10
Grades served: 9 – 12
Number of sending districts: * (as of October 2021, Certified Student Enrollment Date)

Current enrollment: * (as of October 2021, Certified Student Enrollment Date)
Waiting list: * (as of October 2020, Certified Student Enrollment Date)

School Year 2020 – 2021 Demographic Table		
Grade Level Enrollment		
9	35	19%
10	41	22%
11	54	29%
12	54	29%
Gender		
Female	86	47%
Male	98	53%
Race/Ethnicity		
White	172	93%
AI/Alaska Native	2	1%
BAA	1	>1%
Latino/Hispanic	7	3%
Two or more races	2	1%
Special Education		
Students with IEPs	67	36%
General education students	117	64%
Economically Disadvantaged		
Yes	133	72%

No	51	28%
----	----	-----

Executive Summary

The Maine Charter School Commission is the Authorizer of 10 charter districts. Each charter district holds a contract with the Commission containing a Performance Framework of indicators and targets the district shall meet. The charter districts are evaluated and reported on annually as required by law.

District data are gathered through the Maine Department of Education, Charter Districts, and Site Visits, as applicable.

The Maine Charter School Commission has established a monitoring visit table for visit frequency and intensity. A copy of the Site Visit Manual can be found [here](#). Maine Academy of Natural Sciences was on cycle to have a Site Visit at the end of the 2020-21 school year and the Site Visit Report can be found on page 14.

Key documents and other information reviewed to determine progress on the charter district’s performance framework and alignment with its mission are as follows:

- School calendar
- Current enrollment and demographics
- Staff roster
- Current organizational chart
- Board meeting minutes
- Board member meeting attendance
- School’s strategic plan [as applicable]
- Current Education Service Provider contract [as applicable]
- Professional Development calendar and agenda [as applicable]
- Staff evaluation tool
- Administrator evaluation tool used by governing board
- Panorama school climate survey results
- School’s self-assessment
- Previous year’s monitoring report [as applicable]
- School’s performance framework
- Copies of current recruitment materials
- Student enrollment application

Maine Academy of Natural Sciences had success with student enrollment throughout the school year, student re-enrollment from one year to the next, board governance, and closing academic achievement gaps among major student subgroups.

Charter districts are required to submit reports and data for review. The table below summarizes the charter district’s report and data submission completion throughout the 2020-2021 school year.



As a result of the 2020-2021 monitoring process, the charter district is encouraged to consider the following:

FINANCIAL PLANNING AND SUSTAINABILITY

- Financial statement detail should be enhanced – especially related to personnel – the help with financial assessment.
- The governing board needs to develop a process for long-term strategic and financial planning so that it is a consistent agenda item at board meetings and focuses the board's attention to long-term sustainability and excellence.
- Consider preparing an analysis of the net surplus after direct costs for each major educational service category (regular instruction, SPED, and Threshold) to better understand the economics of the school.
- School and Board should review how FY21 COVID relief funding was spent and be sure that FY22 budgets do not rely on a repeat of this funding.

ACADEMIC ACHIEVEMENT AND GROWTH

- Given the impact of the pandemic and lower academic growth than in previous years, the charter organization should develop clear and specific strategies for closing learning gaps to ensure students are prepared for rigorous academic work.
- MEANS is encouraged to continue to leverage data from NWEA MAP and other assessments to support academic instruction.

STUDENT ENROLLMENT AND ATTENDANCE

- Student attendance continues to be low at MEANS. The school is encouraged to develop a plan for increasing family and student awareness of the importance of attendance.

GOVERNING PRACTICES

- The Governing Board would benefit from a facilities committee dedicating time to the development of a capital improvement/facilities plan.

School performance should be considered in the context of a global health crisis, which schools were battling throughout the 2020 - 2021 school year. Students and families grappled with job loss, health concerns and insecurities, and anxiety related to the pandemic. Schools continued to serve students and families despite the COVID-19 crisis. That service often meant that schools focused on the basic needs of students like social-emotional well-being and psychological health while also managing a rigorous academic program. Because of the operational challenges that the pandemic caused, the school likely saw less growth in student achievement than they otherwise might in a pandemic-free environment. All schools faced similar challenges which is why there is a broad focus on learning loss in the educational ecosystem and media. The Charter Commission is closely monitoring academic progress throughout the school year. The Charter Commission applauds the effort of the school to ensure a safe environment for students in which their basic needs were met during the 2020 - 2021 school year.

In the 2020-2021 school year, the Maine Department of Education adopted the NWEA MAP test as the “state assessment.” The MDOE did not assign targets or expectations related to assessment results. The Maine Charter School Commission amended the Performance Framework to require schools to submit results along with analysis. The MDOE has not released MAP data for traditional schools, which precludes the ability of the public to compare performance between charter schools and their traditional counterparts. Given the trajectory of the school’s performance over the last several years, the Charter Commission remains confident in the ability of the school to serve its students and families in accordance with the contract between the parties.

PERFORMANCE INDICATORS SUMMARY TABLE		
Indicator	Details	Performance
Academic Proficiency		

Proficiency on State Assessments in reading	The school will collect baseline data on the NWEA MAP test for ELA and will provide school wide results as well as results at each grade level assessed.	School collected baseline data on the NWEA MAP test for ELA and provided school wide results at each grade level
Proficiency on State Assessments in math	The school will collect baseline data on the NWEA MAP test for math and will provide school wide results as well as results at each grade level assessed.	School collected baseline data on the NWEA MAP test for math and provided school wide results as well as results at each grade level
Academic Growth		
Growth in English Language Arts, reading and communication skills	Growth in MAP RIT scores from fall to spring of each year	64%
Growth in mathematics and reasoning skills	Growth in MAP RIT ¹ scores from fall to spring of each year	66%
ELA MAP Growth	59% of eligible ² students meet projected growth on MAP ELA reading and language by the end of school year 2022-23.	25%
Math MAP Growth	66% of eligible ³ students meet projected growth on MAP math by the end of school year 2022-23	34%
Achievement Gaps		
Achievement gaps in proficiency between major subgroups on the Maine State Assessments	Evidence of closing identified achievement gaps on major subgroups (English learner, special education, gender, economically disadvantaged, 504, ethnic and racial minorities)	Meets Expectation: Subgroups are performing similarly to comparison groups
Achievement gaps in growth between major subgroups on MAP	Evidence of closing identified achievement gaps of major subgroups (English learner, special education, gender, economically disadvantaged, 504, ethnic and racial minorities)	Meets Expectation: Subgroups are performing similarly to comparison groups
Student Attendance		
Chronic absenteeism rate	10% or fewer students classified as chronically absent on the last day of school ⁴	75.8% Does not meet Expectation
Average Daily Attendance rate	Average daily attendance rate in grades 9-12 of 91% or higher	74% Does Not Meet Expectation Below 88%
Student Enrollment		
Enrollment throughout the school year	85% or more of eligible students enrolled on the last day of school will be the same students who were enrolled on State Student Count Day ⁵	89% Meets Expectation: 85% - 89.9%
Recurrent enrollment from one year to the next	85% or more of eligible students enrolled on the last day of school will have completed an Intent to Reenroll form for the next year	85% Meets Expectation: 85% - 89.9%
Post-Secondary Readiness		
4-year high school graduation rate (current cohort)	Schools will meet Maine DOE annual goals: 2020 – 87.74%	50.9% Does Not Meet Expectation
5 and 6-year average high school graduation rate (previous 2 years' cohorts averaged)	Schools will meet Maine DOE annual goals: 2020 – 89.74%	Pending MDOE

¹ The RIT score represents a student's achievement level at any given moment and help measure their academic growth over time. The RIT scale is a stable scale, like feet and inches, that accurately measures student performance, regardless of age, grades, or grade level.

² Eligible is defined as having both a fall and spring score for students in Grades K-11.

³ Eligible is defined as having both a fall and spring score for students in grades K-10.

⁴ Chronically absent is defined as missing 10% or more of school days.

⁵ State Student Count Day is October 1.

Of students in their graduating year, percent participation in post-secondary readiness opportunities	At the end of their graduating year, 70% of each schools' eligible ⁶ students will have participated in at least one post-secondary activity such as (and not limited to) college course, Advanced Placement course, certificate program, or internship	69% Partially Meets Expectation: 60% - 69.9%
Success rate of students participating in post-secondary readiness	70% of the school's students <u>who participated in at least one post-secondary activity</u> such as (and not limited to) college course, Advanced Placement course, certification program, or internship will complete it successfully ⁷	100% Exceeds Expectation: 80% or more
Financial Performance and Stability		
Near Term Measures a) Current Ratio b) Unrestricted Days Cash on Hand	School evaluates its Near-Term Financial Health using the Financial Performance and Stability outline provided by the Commission	Pending Audit
Sustainability Measures a) Total Margin b) Debt to asset ratio	School evaluates its Financial Sustainability using the Financial Performance and Stability outline provided by the Commission	Pending Audit
The school has an annual financial audit conducted. Audit and management letter are submitted to the Commission. Audit has no material findings or misstatements.	Unmodified opinion on [consolidated] financial statements; no material weaknesses, significant deficiencies or reportable instances of noncompliance and other matters identified in the other information accompanying the auditor's report on financial statements or in the auditor's report on internal control over financial reporting and on compliance and other matters	Pending Audit
Board Governance and Stewardship		
Public Accountability: Transparent, responsive, and legally compliant Board operation.	The Governing Board will hold a minimum of 6 meetings per school year ⁸	8 Meets Expectation: 6-10 meetings
	Timely ⁹ publication of Board meeting agenda and minutes upon approval	Partially Meets Expectation: 1-2 items not posted timely
Facilities Management		
Meet Local and State requirements	The school certifies that its facility (or facilities) meet all local and state requirements for public school facilities	Meets Expectation: Certified as required
Capital Improvement Plan	The school has a current Capital Improvement Plan approved by its governing board	Does Not Meet Expectation: Capital Improvement Plan no current or not approved by board
School culture and climate		
Reporting of behavior incidents	Follow the Maine DOE required reporting for incidents of behavior	Meets Expectation: Reports as required
Panorama Survey-Family Participation	40% of families will participate in the Panorama survey	14% Does Not Meet Expectation: Less than 30%
Panorama Survey-Student Participation	65% of eligible students will participate in the Panorama survey ¹⁰	48% Does Not Meet Expectation: Less than 55%
Panorama Survey-Teacher/Staff Participation	70% of teachers/staff will participate in the Panorama survey	76% Meets Expectation: 70% - 79.9%

⁶ Students not excluded via IEP or other individual plan

⁷ Successfully is defined as a passing grade, meeting appropriate standards, or other clearly defined measure of success.

⁸ A school year is July 1 – June 30

⁹ Timely is defined as posting agenda a minimum of 5 days before the meeting and for minutes, posting within 5 days of approval.

¹⁰ Students in grades 3 and up are eligible to participate in the Panorama Education surveys.

Panorama Survey	Annually, the school will review its Panorama Education results and develop an action plan to address areas for continued improvement. Plan and outcome will be submitted to the Commission	*Survey was not conducted in 2020 due to COVID-19 pandemic. Plan not developed.
-----------------	---	---

Reports will be updated once pending data is received.

Site Visit Report

Monitoring Site Visits are based on both the criteria set forth in the school’s performance framework and the school’s alignment with its mission. The categories in the performance framework are student achievement, school climate and family engagement, governance, and finance.

The monitoring site visit was conducted on September 8, 2021, via Zoom. Team members used the Site Visit Manual to plan for and conduct the visit. Prior to the site visit, team members reviewed documents and other information related to the school’s mission and performance framework.

The following participants from the Maine Charter School Commission conducted the monitoring site visit:

- Jeremy Jones, Executive Director, Maine Charter School Commission
- Amy Allen, Operations Director, Maine Charter School Commission
- Mackenzie Wagner, Chief of Staff, Maine Charter School Commission
- Joe Drago, CPA Consultant, Maine Charter School Commission

Focus group interviews were held with groups at the school. Groups were asked a standard set of questions as well as school specific questions created for this visit.

Focus group interviews held by the team:

- Governing Board:
 - Cheryl Bulmer (Board Chair), Scott Byrd (Vice Chair), Sally Beaulieu, Mike Muir
- School leaders/administrators:
 - Matt Newberg (Head of School), Emanuel Pariser (Advisor), Dani Best (Dean of Students), Rebecca Dennison (Dean of Threshold Program), Christine Sullivan (Special Education Director), Evan Coleman (Curriculum Coordinator)
- 10 students representing grades 9, 10, 11, and 12
- 5 parents with students in grades 9, 10, 11, and 12
- 16 staff representing a variety of grade levels, subject areas, and roles

Mission Alignment

Overall, MeANS demonstrated through its site visit that the school is upholding the mission outlined in its charter. This was evidenced by interviews with Governing Board representatives, Administrative team, students, teachers, and families.

Mission Statement: The Maine Academy of Natural Sciences (MeANS) is a public charter high school that inspires and engages students through project-based, student-centered instruction immersed in the natural sciences of Maine with a focus on agriculture, forestry, and the environment. MeANS challenges all students to connect with their education in order to grow as individuals, interact with their communities, and lead fulfilling lives.

Administrative Team

In keeping with its mission, the leadership team provided examples of the school being “all about relationships”, including daily meetings with advisors and extended meetings with advisors once each week, regular contact with families, and an emphasis on getting to know the students. The leadership team also expressed gratitude for their outdoor learning environment, particularly during the pandemic.

Students

Students at MeANS first and foremost expressed gratitude for their relationships with teachers and the effort teachers put into getting to know them as individuals and as students. Students at MeANS feel that staff genuinely want to get to know them, noting that MeANS is “like a family”.

Students also expressed their appreciation for the project-based learning model at MeANS. They enjoy the opportunity to work at their own pace, so long as they are meeting the learning standards, and noted that staff are a useful resource for students in setting their own goals and figuring out plans to achieve them.

Students shared that they feel they are learning practical life skills at MeANS, such as learning how to tap trees for maple syrup, ice fishing, cooking classes, and support in navigating life challenges such as finding a doctor.

Parents

Parents shared that the mission is part of what drew them to MeANS. They appreciate the “hands-on” learning style and life skills that MeANS teaches, including teaching students social skills, and in one example, supporting a student in getting their tractor license so the student could work at a local company.

Teachers

Teachers echoed the sentiments of other focus groups in appreciating the relationships the MeANS school community has built. They expressed that students at MeANS receive “individual, hands-on” learning, and the chance to pursue individual interests. When asked what drew them to work at MeANS, teachers cited the close relationships with students as well as the project-based learning model.

Student Achievement

Students, families, and staff at MeANS are appreciative of the project-based learning program that MeANS offers, as well as the personalized learning that takes place at MeANS that allows students to follow their individual goals and passions. MCSC commends MeANS on its cultural shift related to assessments and encourages MeANS to continue to leverage data from NWEA MAP and other assessments to support academic instruction.

Governing Board

The Governing Board of MeANS has an Academic Committee. The Academic Committee had hoped to do classroom observations but didn’t go into school because of COVID-related risk. The Governing Board also expressed a desire for alternative forms of assessment that could better measure what MeANS states as its mission. They shared concerns around equity with standardized testing and questioned whether testing is producing valuable data.

Administrative Team

The administrative team mentioned that there is an “emphasis on curriculum”, as MeANS shifted to a new curriculum last year. MeANS added a Curriculum Coordinator to their staff, who is supporting teachers with the implementation of their new curriculum as well as observation and feedback. The leadership team shared that the school has been undergoing a culture shift related to standardized assessments, where there had previously been “bad attitudes among students and staff”. They also expressed that the NWEA MAP training provided in 2019-20 had been helpful to the school, that staff who have received training are “doing better”, and that more training is “definitely needed”.

Students

Students expressed appreciation for MeANS’s academic model, including project-based learning, self-paced learning, and the emphasis on life skills. They shared that remote learning had been a challenging time because of technical

issues, distractions at home, and the desire to return to hands-on learning. Students also shared appreciation for the opportunity to set their own goals and work with their teachers to create plans to help them achieve their goals. One student mentioned the desire to go to college and the support their teachers are providing with navigating the financial aid process. Another shared about their desire to work in the medical field, and that they've had the opportunity to take science courses at Kennebec Valley Community College in pursuit of that goal. Students overall seemed satisfied with their academic experience of MeANS.

Parents

Families expressed they are happy with the hands-on programming that MeANS provides to students, and that they are grateful that students are learning applicable life skills. One parent commented, "when they leave MeANS, they'll have life skills that they wouldn't have learned in another school".

Teachers

Teachers enjoy the project-based learning aspect of MeANS. However, they expressed finding sufficient time to do the planning needed to support a personalized, project-based learning program is a challenge. Teachers shared they use NWEA MAP data to help guide instruction, and that additional training on NWEA MAP would be helpful. Staff also expressed they are "spread too thin" because they "never have enough staff".

School Climate and Family Engagement

Overall, focus groups at MeANS indicated that members of the school community are appreciative of the strong relationships at MeANS and identify these relationships as a major strength of the school.

Administrative Team

The MeANS administrative team emphasized that the school is "very relational". While COVID has been and continues to be a challenging time for the MeANS school community, the administrative team shared that staff are taking extra care to reach out to students. During COVID, they made frequent phone calls to students and families and also made trips to students' driveways. They shared that despite COVID, this is an "exciting time at MeANS".

Students

Students described the MeANS community as "like a family". They feel their voices are heard and appreciate the opportunity to call teachers by their first names. Students shared that at times, they have struggled with instances of bigotry or racism. They appreciate that the school is "all about being independent" but noted that sometimes it "gets out of hand". Despite this, students overall seemed satisfied with the school culture and climate at MeANS.

Parents

Parents expressed tremendous gratitude for the welcoming, inclusive culture at MeANS. Parents shared examples of their students previously struggling at other schools, and appreciate the "personal touch" at MeANS, and shared that MeANS has been a "Godsend". Several parents commented they had previously felt like their child had been seen as a burden, but at MeANS, they do not feel this way. They appreciate receiving weekly communication from the school and the ability to select their preferred method of communication (i.e. text, email, phone call). Parents were overwhelmingly positive about their students' experiences at MeANS.

Staff

Staff noted that collaboration amongst teachers at MeANS was strong, and that there is a "good feeling of camaraderie" at the school. They echoed students' sentiments of gratitude for having the opportunity to develop strong relationships.

They also described the “laid-back atmosphere” where teachers are called by their first names. Staff seemed generally satisfied with the school culture.

Governance

MeANS's Governing Board has been effective in its governing duties overall and is encouraged to continue its academic oversight of the school on a regular basis.

The Governing Board mentioned that a school leader evaluation process was put in place last year. The Board is also leveraging a self-assessment from the Maine Association for Non-Profits for its own evaluation, which is being used in addition to metrics assembled by the Board's Vice Chair. The evaluation will not be done annually because of board turnover, but is planned for every 2 years.

Finance

MeANS continues to have strong financial practices that support the sustainability of the school.

Governing Board

MeANS shared that their relationship with Good Will-Hinckley has transitioned to more of a partnership. They are grateful for a large donation that will be invested as well as support with targeted efforts and special projects. The board also has a Development Committee.

Administrative Team

While finances were not specifically discussed with the administrative team at this visit, the team did mention the intent to use some of the American Relief Fund dollars to “booster academic remediation and recovery”.