

Maine Charter School Commission



Maine Academy of Natural Sciences

ANNUAL MONITORING REPORT 2017-2018

September 2018

On July 20th and August 10th announced on-site visits were made to the Maine Academy of Natural Sciences. The Maine Charter School Commission (MCSC) Review Team chair 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. 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
MCSC Executive Director	Bob Kautz
MCSC Director of Program Management	Gina Post

School's Mission	<i>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.</i>
School's Vision	<i>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.</i>

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.

2018-2019 School Information

School Name	Maine Academy of Natural Sciences
Address	16 Prescott Drive, P.O. Box 159, Hinckley, ME 04944

Governing Board

Board Chair	Mike Muir
Board Vice Chair	Tom Edwards
Board Secretary	Mara Tieken
Board Member	Cheryl Bulmer
Board Member	Karen Kusiak, Ed. D
Board Member	Stephanie Johnson
Board Member	Senator Scott Cyrway
Board Member	Troy Frost
Board Member	Dana Doran
Board Member	Cheryl Mercier
Board Member	David Cyr

Head of School	Tonya Arnold
Special Education Director	Christine Sullivan

Year Opened	2012
Years in Operation	7
Number of Sending Districts	32
Grades Served	9 - 12
Current Enrollment	178*
Students on Waiting List	28*

*As of October 1, 2017 certified enrollment date.

Section1: Overview

The Maine Academy of Natural Sciences (MeANS), the first public charter high school in Maine, introduces students to careers in farming, forestry, sustainability, alternative energy and other related fields. Students gain knowledge and skills through hands-on projects, internships, targeted courses, and real-world experiences such as growing food on campus for the cafeteria and residences.

On campus housing opportunities are available in cottages that house anywhere from 8-12 students and are staffed by experienced Campus Living Advisors (CLAs). CLAs supervise students' academic studies and social activities. Each resident student has responsibilities at his/her cottage – cleaning, cooking, etc. CLAs provide coaching within a specific curriculum of independent living skills.

Students will become engaged, self-directed learners. They will develop habits of heart and mind that lead them to taking responsibility for their own actions, as well as for the welfare of other students, their community and their environment. They will have a plan for their next steps as young adults that includes further education, training, adventure, civic engagement and work.

Located in central Maine on several hundred acres of wilderness, organic farmland and river frontage, MeANS uses hands-on learning experiences tailored to a student's interests, introducing them to careers in farming, forestry, sustainability, alternative energy and other related fields.

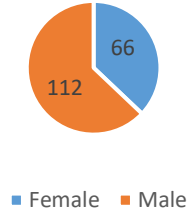
The Maine Academy of Natural Sciences (MeANS) is Maine's first high school to focus on the natural sciences. MeANS includes day students from the local region and boarding students from across the state.

Section 2: Indicator Summary Table

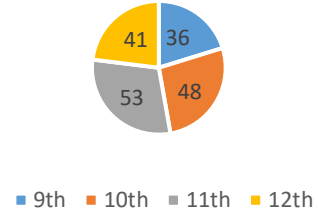
Indicator	Meets Contract Agreement	Partially Meets	Does Not Meet
Student Academic Proficiency		X	
Student Academic Growth	X		
Achievement Gaps in Proficiency and Growth Between Major Student Subgroups		X	
Student Attendance	X		
Enrollment	X		
Post-Secondary Readiness	X		
Financial Performance and Sustainability	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	

Section 3: Demographics

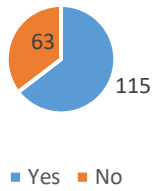
Gender



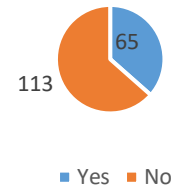
Grade



Economically Disadvantaged



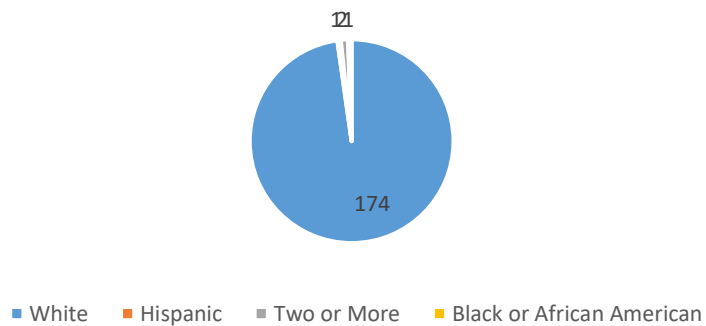
Special Education



Language



Race-Ethnicity



Section 4: Academics

Student Academic Proficiency

Measure	Target	Results	Met/Did Not Meet/Partially Met
Percent at or above expectations on SAT - reading	Increasing percent of students reading at or above state proficiency level by 3% annually starting in 2016	2016 % proficient= 33.3 2017 % proficient= 23.5 2018 % proficient= 29.6	Partially met
Percent at or above expectations on SAT - math	Increasing percent of students reading at or above state proficiency level by 3% annually starting in 2016	2016, 2017, 2018 % proficient not reportable due to small n size and maintaining student confidentiality	Not publicly reportable
Reading NWEA	Fewer than 35% of seniors will scoring in the Low grade level norm in literacy	Not reportable due to small n size and maintaining student confidentiality	Not publicly reportable
Math NWEA	Fewer than 36% of seniors willIn scoring in the Low grade level norm in literacy	Not reportable due to small n size and maintaining student confidentiality	Not publicly reportable

Discussion

MEANS partially met its targets for 11th grade reading proficiency as measured by the MEA (SAT). The school's results on the MEA (SAT) math and NWEA assessments are not publicly reportable due to small n size and maintaining student confidentiality. In addition to the students who took the SAT during the test window, additional students completed the assessment at a later date. Approximately 1/3 of MEANS students who take the MEA in the 11th grade are in their first year at MEANS.

Percent proficient on grade 11 MEA (SAT) reading by year and district:

	2016	2017	2018	2019	2020	Target
MEANS	33.3%	23.5%	29.6%			48%
State	59.6%	59.1%	57.1%			-----
RSU 54	52.3%	46.9%	43.6%			-----
Waterville	61.7%	59.0%	55.8%			-----
RSU 49	51.5	53.7%	52.2%			-----

Percent proficient on grade 11 MEA (SAT) math by year and district:

	2016	2017	2018	2019	2020	Target
MEANS	*	*	*			25%
State	35.3%	34.9%	34.5%			-----
RSU 54	39.1%	32.0%	24.0%			-----
Waterville	36.5%	32.5%	27.4%			-----
RSU 49	26.7%	43.5%	35.0%			-----

Student Academic Growth

Measure	Target	Results	Met/Did Not Meet/Partially Met
Reading NWEA - Percent not meeting reading growth target	The 12 th grade will have fewer than 46% who did not meet their projected RIT growth score in reading than in their original NWEA assessment from 9 th grade.	26%	Met
Math NWEA - Percent not meeting reading growth target	The 12 th grade will have fewer than 28% who did not meet their projected RIT growth score in math than in their original NWEA assessment from 9 th grade.	26%	Met

Discussion

MEANS met its targets in both math and reading on the NWEA. 12th grade students improved their scores over 4 years, resulting in fewer students not meeting their projected growth than in their first (9th grade) year.

Achievement Gaps in Proficiency and Growth Between Major Student Subgroups

Measure	Target	Results	Met/Did Not Meet/Partially Met
Percent Well Below on SAT Reading	Reducing the number of students with an IEP who score well below by 2% annually beginning with 2015-16 year as baseline.	Not reportable due to small n size and maintaining student confidentiality	Did not meet
Percent Well Below on SAT math	Reducing the number of students with an IEP who score well below by 2% annually beginning with 2015-16 year as baseline	Not reportable due to small n size and maintaining student confidentiality	Met
Percent Not Meeting Growth Target on Reading NWEA in unidentified and identified groups	Reducing the number of students with an IEP not meeting growth target by 2% annually in relation to unidentified group beginning with 2015-16 year as baseline.	Not reportable due to small n size and maintaining student confidentiality	Met
Percent Well Below Growth Target on Math NWEA	Reducing the number of students with an IEP scoring well below by 2% annually beginning with 2015-16 year as baseline.	Not reportable due to small n size and maintaining student confidentiality	Did not meet

Discussion

Of the 4 identified subgroup areas, targets were met in 2. Specific data cannot be shared due to small n size and maintaining student confidentiality.

Reading percent at or above state expectations for reportable subgroups (math and other subgroup data are not reportable due to small n size and maintaining student confidentiality):

	ELA
MEANS	29.6
State of Maine	57.05
Female	53.9
Male	19.4
Economically Disadvantaged	21.7
Non-economically Disadvantaged	38.1

Section 5: Attendance and Enrollment

Student Attendance

Measure	Target	Results	Met/Did Not Meet/Partially Met
Average daily attendance	ADA will be 85% or higher	87%	Met

Discussion

Overall average daily attendance was 87% and met the 85% target. The Threshold Program's average daily attendance was 74%. The school reports that students in the Threshold program had previously been truant or had dropped out and believes that 74% is an accomplishment to be proud of.

Reenrollment

Measure	Target	Results	Met/Did Not Meet/Partially Met
Student re-enrollment from one year to next.	student re-enrollment from one year to next will be 90%.	100%	Met
Student enrolled continuously for multiple years	continuous re-enrollment percentage of students for more than two years will be 85%.	100%	Met

Discussion

With 100% student re-enrollment from 2017-18 to 2018-19, the school met its 90% target. The school also met its 85% continuous enrollment for more than 2 years with 100%.

Post-Secondary Readiness

Measure	Target	Results	Met/Did Not Meet/Partially Met
Percentage of students who have graduation in the current year as their Personal Learning Plan Goal.	90% of students who have graduation as their Personal Learning Plan Goal in the current year will graduate in that calendar year.	88% of junior and seniors who had graduation as their Personal Learning Plan Goal in the current year graduated	Met
Percentage of students who take and complete concurrent and dual enrollment classes at KVCC or other Community Colleges who achieve passing grades.	90% of students who take and complete concurrent and dual enrollment classes at KVCC or other Community Colleges will achieve passing grades.	100% of the 25 learners taking concurrent and dual enrollment courses in Fall 2017 achieved passing grades.	Met

Percentage of most recent graduates contacted who are not in college or parenting and are working full time or enlisted during the year following graduation.	70% of most recent graduates contacted who are not in college or parenting and are working full time or enlisted during the year following graduation.	82% (18 of 22) of students who graduated in 2017 who are not enrolled in college or parenting are working full-time.	Met
Percentage of graduating seniors who will have been accepted into a post secondary institution within a year of graduation.	45% of graduating seniors will be accepted into a post secondary institution.	69% (24 of 35) were accepted to a post secondary institution	Met

Discussion

Two of the student who are not meeting the goal had hospitalizations that impacted their ability to engage in learning at a consistent level.

82% (18 of 22) of students who graduated in 2017 who are not enrolled in college or parenting are working full-time. The remainder are in Vocational Rehabilitation training. 35% are enrolled in post secondary training (12 of 34).

69% (24 of 35) were accepted to a post secondary institution, but only 46% are planning to attend Fall 2018.

Post-secondary plans:

- 46% college bound
- 23% workforce
- 11% apprenticeship or specialized training program 6% GAP year for travel and internship
- 6% Parenting
- 8% Currently undecided

Section 6: Finances

Financial Performance and Sustainability

Measure	Target	Results	Met/Did Not Meet/Partially Met
Budget versus actual revenue and expenditures	Annual budget balance	Financials reviewed by governing board quarterly, reports submitted to DOE and MCSC as required, 2017 audit completed	Met

Discussion

The MEANS governing board reviews the school's financials quarterly. The school submits reports to the Maine Department of Education and the Maine Charter School Commission as required. The school had an external financial audit completed for FY2017 and submitted the resulting report as required.

Through responsible fiscal management, changes to the funding formula and increased grant funds, MEANS was able to reduce the amount of funds gifted from Good Will Hinkley. The school maintained a favorable budget throughout the year. GWH worked with MEANS to set funds aside to add an outdoor work space (barn next to the greenhouses and a new sugar shack).

Section 7: Governance Board Performance and Stewardship

Governance Board Performance and Stewardship

Measure	Target	Results	Met/Did Not Meet/Partially Met
Public accountability, transparent, responsive and legally compliant board operations	Meets legal requirements	Requirements met	Met

Discussion

The MEANS 11 member governing board meets several times annually. Its agendas and minutes are posted on the schools website for public accessibility.

The board has 5 standing committees: Executive Committee, Academic Affairs, HR Committee, Finance Committee, and Development Committee.

Section 8: Facilities & Maintenance, Food Service, and Transportation

Adequacy of Facilities Maintenance in Support of Program

Measure	Target	Results	Met/Did Not Meet/Partially Met
Facility meets state Standards	Facility will meet all applicable state standards for public schools.	Standards met	Met

Discussion

Facility standards are met and plans to expand learning spaces to include a new sugarhouse and barn-style garage are underway for 18-19 by redirect of reduction of Good Will Hinkley gift to MeANS into the capital fund with GWH.

Transportation

Measure	Target	Results	Met/Did Not Meet/Partially Met
Record of costs and student utilization	Transportation is safe and efficient	Transportation report provided	Met

Discussion

In 2017-18 MEANS had a reduction in transportation cost from the 2016-17 school year despite a 13% increase in students and increased square miles covered per day. The cost savings was due to a shift in delivery model from 16-17 to 17-18, and also included the elimination of 10+ passenger vans and 5 van drivers for AM/PM transport. A fleet of smaller vans is used for mid-day transport to KVCC, community trips, etc. which are driven by MeANS staff members who serve other roles.

Food Service

Measure	Target	Results	Met/Did Not Meet/Partially Met
Record of costs and student utilization	Food service meets applicable requirements.	Report provided	Met

Discussion

68% of Means students qualify for free or reduced lunch and free breakfast. Participation varies between 30 and 60 percent depending on the meal, trips and weather.

Section 9: School Climate

School Social and Academic Climate

Measure	Target	Results	Met/Did Not Meet/Partially Met
Instances of bullying, harassment, or other abusive behavior.	School will submit 5 or fewer incidents of bullying or harassment reported to the Department of Education.	0 incidents	Met
Confidential survey of parents staff and students	Percent expressing a positive view of school climate 90% of students 85% of parents 90% of staff	Percent expressing a positive view of school climate Students= 56%, 70 th ile nationally parents= 77%, 99 th ile nationally staff= 76%, 99 th ile nationally	Partially met
Participation on Confidential survey of parents staff and student	Students 25% Parents 20% Staff 60%	Students 57% Parents 40% Staff 93%	Met
Gallup Poll Survey of Students Growth Between First and Final Years	Each grade cohort at MeANS will show growth in one of three areas (Hope, Engagement, Well Being) measured by Gallup Poll annually using 2017 fall results as baseline.	Baseline data collected	Met

Discussion

With no incidents of bullying or harassment, MEANS met its target of 5 or fewer.

When MEANS set its climate survey targets it had been using a school developed surveys. The survey data reported here is based on confidential survey was conducted with Panorama Education. While the percent expressing a positive view of the school was below the targets set by the school based on its school developed survey, its percentile ranks in each area were above average and well above average as compared to similar schools nationally (rural, high schools with 30-70% free/reduced lunch). The school partially met this target.

The school met its participation targets for the survey in each of the three groups.

The results of the 2017-18 Gallup Poll establish a baseline.

Section 10: Parent and Community Engagement

Parent and Community Engagement

Measure	Target	Results	Met/Did Not Meet/Partially Met
Weekly communications between advisor and family	95% of parents receive written or oral communication from the advisor each week.	88% of parents report receiving regular communication with the advisor on a weekly basis.	Did not meet
Percent of Parent/guardian participation in student-led conferences.	90% of parents attend at least one student led conference during the year.	98% of parents attended at least one student led conference during the year	Met

Discussion

88% of parents reported having received weekly communication from their student's advisor. The school did not meet the 95% target. Starting with the 2018-19 school year the school will require all staff to share a uniform parent contact log electronically with the administration so that regular review and support can be provided for staff who are unable to meet the requirement.

Although the school did not meet this target, overall parent engagement level is on the rise according to the Panorama Survey and is around the 90th percentile nationally.

98% of parents attended at least one student led conference during the school year, meeting the 90% target.

Section 11: Administration

MEANS continues to be led by a single administrator. During the 2017-18 school year the administrator's title changed from principal to Head of School, which captures more of the job performed by the administrator.

The Head of School oversees both the on campus and off campus (Threshold) programs and works closely with a consultant, and former MEANS administrator, to manage the Threshold program.

The new School Counselor and Leader positions are designed as leadership roles to support and facilitate the vision and mission of the school in addition to supporting our students' social, emotional, academic, and career needs.

MEANS teachers are involved in decision making processes with the administration and have a distributed leadership model. The leadership roles include, College Access Team Leader, Transportation Coordinator, 21st Century Teacher Leader, team leaders (3), RtI Coordinator, Title 1 Coordinator, Student Leadership Facilitator, Student Information System Liaison, Yearbook Advisor, Professional Development Leader, Technology Integrator, and several Teacher Assistant Stipends for Ed Tech IIIs who want to develop more skills toward becoming a teachers. In addition there are informal leadership roles that certain staff have evolved such as Wellness Coordinator, Student Council Advisor, Community Service Initiatives, and new staff mentorships.

Section 12: Evidence of Mission and Vision Implementation

(See Page 2 for School's Mission and Vision)

MeANS meets its mission and vision by:

- building strong, positive relationships between students and staff, and fostering a tight-knit school community rooted in mutual respect among all members;
- utilizing hands-on learning, the natural sciences, and a highly individualized curriculum to challenge each student to stretch to his or her full potential, and to develop personal interests;
- utilizing the natural world, our local community, and access to the Community College System as motivating and enriching learning environments.

MeANS continues to use a model emphasizing relational learning. While MEANS serves a diverse range of learners, non-traditional students, in particular, thrive in this environment. A relational approach is particularly effective for the much higher than average percentage of students at MeANS with IEPs, 504s, or other demonstrated deficiencies in their previous school experience. Using individually modified learning methods and personal support, MEANS is able to engage the student in learning. MEANS' reports its advisory system is a key element in creating a strong sense of school connectedness. A central function of advisories is to get to know students well and to create strong relationships with their families. Through daily connection with advisees and weekly contact with parents, advisors develop strong productive relationships with their advisees over four years. The continuity and depth of these relationships enhances the goal setting and reflection processes documented by the Personal Learning Plan, and helps students to build a sense of individual responsibility.

MeANS has adapted an experiential learning model, and currently offers ninth and tenth graders 6 separate "intensives" and eleventh and twelfth graders two intensives which cover an engaging range of content areas. The community outreach program places students in apprentice or internships and helps them to find work and career aligned experiences. Threshold students and staff create individualized experiential learning projects tailored to the student needs and interests. These students connect with the environment on campus at least monthly and/or in their local community. Connections to social services, the community college system, and certification or licensure programs also help these students meet higher aspirations than when first enrolled.

Section 13: Commendations and Concerns

Commendations

- Implementation of the new Threshold program
- Increased emphasis on agriculture and forestry

Concerns

- Achievement gaps among subgroups
- Student academic proficiency