

Think Forward New England: Profiles of Innovation

Nokomis Regional High School



Image courtesy of Nokomis Regional High School

Key Lessons

- Project-based learning and interdisciplinary experiential learning engage students in the “heavy-lifting” of cognition and reflection.
- Dedicated departments and staff members provide the space and resources to support students with career exploration and postsecondary preparation.
- Students feel in control of their learning when courses and opportunities are aligned with their interests.
- Starting small while providing professional support and fostering a culture of collaboration contributes to staff autonomy and creativity.

Key Questions

- How might educators balance interdisciplinary instruction with grade-level standards for each subject?
- How might high schools develop a professional culture of risk and reflection in an accountability setting?
- How might high schools create flexible pathways for students to design components of their own high school experience?
- How might high schools ensure a balance between dynamism, coherence, and quality in the student experience?

Introduction

Since 17-year-old Autumn enrolled at Nokomis Regional High School three years ago, she has appreciated the opportunities for interdisciplinary and hands-on learning. When the COVID-19 pandemic stuck and the school building temporarily closed down, Autumn wasn't sure what to expect. But she wasn't disappointed by her learning experience during the pandemic. Even though remote learning was difficult, students and teachers at Nokomis persisted in their dedication to student-centered and project-based learning. Autumn believes that any remote teaching should emphasize “interactive kinds of things, like activities. Not only because being interactive helps get things across better, but it also helps us be more interested and grasp a better hold on what we're learning.” Her comments underscore an expressed commitment by Nokomis staff to implement dynamic and participatory education, regardless of virtual or in-person learning models.

It was actually student input and reflection that prompted Nokomis' leaders to overhaul their approach to teaching and learning more than a decade ago. Principal Mary Nadeau asked students about their fondest memories and realized that “the things they get excited about are

often those co-curricular activities or those times in an academic program when you're doing something special or different. Where they had some choice and voice . . . they get really fired up about it, and it's learning they hang onto as they near graduation." Ever since coming to this realization, Nadeau and the Nokomis community have experimented and reflected on their teaching practice to innovate on the student experience, with authenticity as their north star.

Nokomis Regional High School is a traditional open-enrollment regional high school. Located in Newport, Maine, the high school draws nearly 600 students from eight different towns across the rural RSU19 district—an area covering 400 square miles. Despite the distance, a strong sense of community is notable in the longevity of the staff, several of whom graduated from Nokomis High School themselves. But Nokomis has remade itself in more ways than one. The staff are dedicated to taking advantage of their new building, which opened in 2020, and their beautiful large outdoor campus as they break down the traditional egg-crate classroom paradigm and seek opportunities to connect into a wider learning ecosystem.

Nokomis at a glance

- Newport, Maine
- Traditional open-enrollment regional high school
- Grades 9–12
- 620 students
 - 4% two+ races, 1% Black, 2% Hispanic, 93% White
 - 18% Students with Disabilities
 - 0% English language learners
 - 56% Free/Reduced-Price Lunch

Core principles

- Mastery-based education (5+ years)
- Student advisories (5+ years)
- Students earn industry credentials (5+ years)
- Physical well-being services (3–4 years)
- Project-based learning (3–4) years

The Nokomis team has spent over a decade laying the groundwork for multifaceted reforms—including interdisciplinary curriculum, project-based learning, education outside of classroom walls, and meaningful career exploration—all of which are student-centered and aim to deepen rigorous academics into “authentic learning experiences,” activities that are in step with students’ passions and postsecondary pathways. This holistic, gradual approach has not been without tensions and challenges but it has proven to be robust, gaining momentum during the pandemic rather than

losing it. Almost everyone at the school describes the Nokomis experience as “immersive:” students are asked, and even required, to shoulder the load and take ownership over their academic projects and postsecondary pathways. They do so with support from a broader menu of extended learning opportunities and a more aligned career development department than at most typical high schools. The shared belief in student agency and a dynamic school environment has served as a strong bedrock for Nokomis’ growth and evolution.

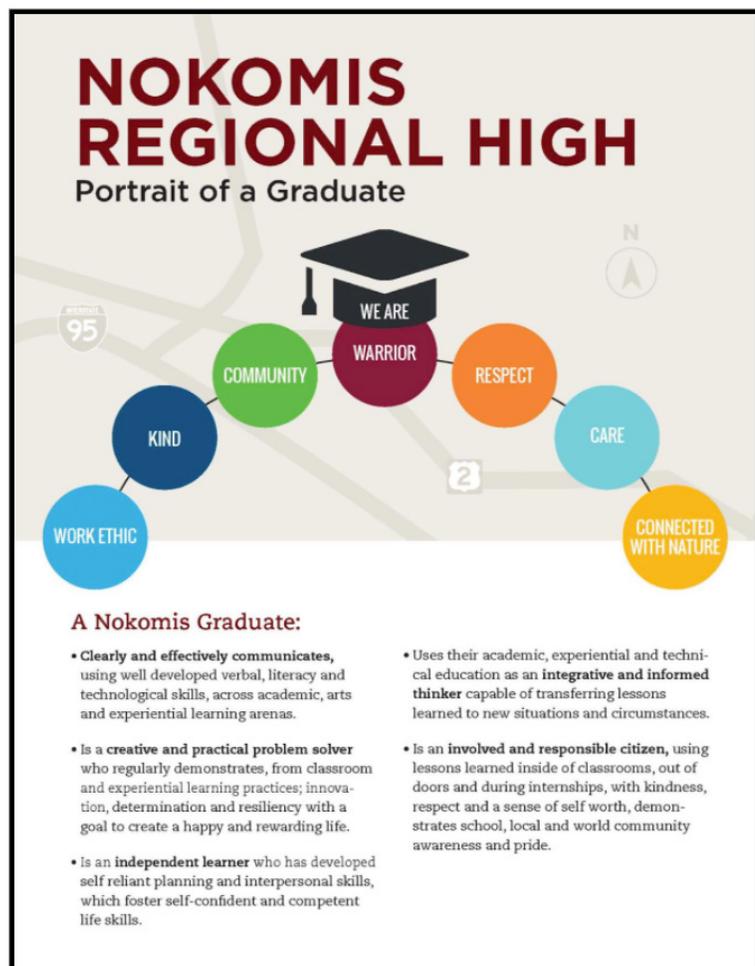
Laying the foundations for an engaging student-centered approach

More than ten years ago Nokomis teachers reflected on student feedback about the most memorable and impactful learning experiences and considered new approaches to creating a more immersive and authentic learning experience. Principal Nadeau said, “There’s always

been a spirit of willingness to do things creatively.” But the school leadership felt they had missed some of the foundational curricular pieces that make those creative opportunities rigorous. According to Nadeau, up until a few years ago teachers were working independently, leading to “wildly different” classroom experiences for students, even in the same grade and subject level. She felt strongly that the school should offer common opportunities to promote a more equitable and coherent school experience. “It’s not about being in lockstep, but about collaboration,” Nadeau noted. Nokomis worked with the Great Schools Partnership, a nonprofit school-support organization, to connect various student pathways and experiences into a larger academic plan.

The entire Nokomis team systematically revisited their curriculum to arrive at shared core competencies, which set the stage for deepening learning at the school. Nadeau believed it was important that the ideas originate among the community and staff to lend a measure of authenticity and buy-in that might achieve more lasting results. A noticeable difference at Nokomis is that leaders allocate staff time and resources to match their stated priorities. Nadeau wanted the entire staff team to “embrace and learn more about the process,” rather than have a “subset of people cranking it out.” Instructional coach Kasie Giallombardo credited the consistent templates for units and design for helping teachers get crystal clear about what they are teaching and how to get there, leaving them space to think and act more flexibly. In addition to increasing graduation rates, she added that there is “more clarity and richness” in what students are learning.

In 2019 Nokomis surveyed community members, including students, staff, alumni, family, and partners to find out what the community valued most in a Nokomis education. This process led to a vision and design for their Portrait of a Graduate. This new, student-friendly document integrated the school’s five guiding principles, Maine learning standards, and community values. The resulting vision for a Nokomis student served as motivation for the school leadership to push forward some of their constructive and actionable ideas. Nadeau described a “soft rollout,” during which teachers started crafting assessments aligned to the values and guiding principles from the Portrait of a Graduate.



Nokomis Regional High School Portrait of a Graduate

Adjusting in the face of a pandemic

When the pandemic forced the school to transition to remote, and then hybrid, learning, the Nokomis instructional strategy was under threat. Several of the hallmarks of their approach—community internships, hands-on lessons, student-directed learning, interdisciplinary group work—were complicated and challenged. Leaders knew they risked students disengaging (Oscar, a senior, said the pandemic made his “senioritis ten-times worse”). So Nadeau encouraged staff to seize the opportunity to try something new and engaging, noting that the pandemic “put things into perspective for people and allowed them to focus on what they are passionate about.”

Teachers and staff drew on their years of culture-building to persist with key elements of their instructional approach. The time spent developing a common language and shared understanding of their core competencies enabled staff to have frank conversations about what to prioritize. Even though staff lost one-fifth of their instruction time to hybrid scheduling shifts, they were galvanized by the increased collaboration time to double-down on student-centered activities, rather than backslide into traditional teacher-led instruction. Nokomis unfurled a third interdisciplinary unit, and every class intentionally opened with a project-based learning unit designed to re-engage students after spring closures and summer break.

Ellen Payne, a math teacher who has long pushed her students to have deeper conversations about content through project-based learning, said she got creative with her instructional approach in ways that will outlast the pandemic. She tried a new strategy of presenting multiple examples of completed work and asking students to compare, consider connections, and discuss which would be best to apply in various situations. “At first it was super difficult for them because you have to use more rigorous math language and be specific.” Yet there was a positive impact, she said, on students’ ability to puzzle through problems versus regurgitating procedures. Her approach connects to a larger emphasis at the school—essential in particular during the pandemic—that students remain active as learners rather than mostly listening to the teacher say what’s “right.”

Although the pandemic prevented students from accessing in-person extracurricular activities, this barrier ultimately nurtured solutions that expanded Nokomis students’ horizons beyond the boundaries of their community. The Career Department staff and the Extended Learning Opportunities (ELO) coordinator connect students with a broad range of work experience and career exploration, so they had to be more resourceful during the pandemic to safely expose students to life and learning outside of school. Students “haven’t had the opportunity to go out and see authentic work in that particular field,” said Wayne Prescott, Career Department head. “But with that said, being very rural, we don’t always have connections to the careers that students aspire to.” This year, students shifted from in-person community-based job shadowing to having more conversations by phone, email, and Zoom meetings with professionals in their career fields of interest. School leaders said this helped normalize virtual meetings in a way that’s particularly important in a rural community where students don’t always have access to employers in a range of fields. ELO coordinator Cara Flannery said, “We were forced to take a step back and think, ‘What do we have available? And what can we make happen?’” The upshot is that despite pandemic stumbling blocks, students got exposure to a broader range

of voices and experiences, including new remote internships and virtual guest speakers. This illustrates the dynamic and proactive mindset expressed by staff members in academic and extracurricular departments alike.

Innovation spotlight: Intentionality and student-centeredness define the Nokomis approach

At Nokomis, the gradual shift to student-centered learning has been intentional. From the outset, Nokomis has acknowledged that this approach takes time and effort, but their patient and reflective approach is worth it. Daniel Leaver, social studies teacher, works to instill students with the feeling that they are part of the decision-making process, which deepens their learning but allows students to set the lesson pace. Planning and implementing rigorous instruction takes time—it requires nudging and pushing students to dive in rather than remain passive. All of the teachers agreed that it demands both physical and mental stamina for students to actively engage in higher-order thinking all day. Sometimes students wish the teacher would just tell them what to do. Autumn, a rising senior, felt “disheartened” when teachers “are encouraging creativity but also not really letting you know what they want.” Teachers wrestled with putting the proper supports and lesson designs in place to hit learning targets while fostering student ownership and engagement with the content. Pioneering new techniques and lesson plans didn’t feel easy to get right, but through collaboration and iteration Nokomis has made steady progress over the last decade.

A clear vision and alignment about what matters launched Nokomis on this journey. Even as the pandemic prompted many schools to opt for efficiency and economy, school leadership did not skimp on the resources and time needed to continue devising creative solutions and priority practices. Where many schools lost steam during the pandemic, Nokomis has persevered.

How has the leadership established a dynamic school culture that allows staff and students to pursue their interests and flourish?

Interdisciplinary and project-based learning

Even though Nokomis Regional High School is organized by subject departments, Principal Nadeau and her staff have worked over the last few years to overcome traditional siloed content. Teachers from different subjects—who realized that they were planning for similar learning indicators—decided to work toward both through one project. In an inaugural effort, students investigated sustainability efforts in their community using research questions developed in social studies and writing their essays for English class. Building on the momentum of this successful collaboration, the group of teachers looked for other natural overlaps and recruited colleagues across departments to get involved. There has been some pushback or hesitancy on the interdisciplinary effort from teachers concerned about losing their content; a particular tension for math teachers is fitting in with humanities. Payne, the math teacher, pointed out, “There’s always some mathematical angle and data presentation in projects, but the tasks don’t always match advanced grade-level standards.” Social studies teacher Leaver observed that AP students were among the most uncomfortable about taking the intellectual step from the expectations of traditional education to experiential learning.

Nokomis teachers were motivated to design project-based units for their classes because the instruction was hands-on, leading to noticeable academic engagement. For example, Jeff Giallombardo brings his professional expertise and interest in aquaponics, a sustainable method of agriculture that uses fish cultivation to grow and produce food, to his role as an alternative education teacher at Nokomis. His goal is not only to engage students but to push them to think deeply while gaining memorable and transferable skills. Opportunities to teach like this reinforced to him “what a great staff we have and a lot of opportunities professionally for creativity.” The aquaponics program offers an on-site work-based learning experience, and Giallombardo sees the success of project-based learning in the strong outcomes for his alternative education students—including a graduation rate of 85 percent. Math teacher Payne agreed that interactive student-led, task-based learning works well for all students, it just takes some of them longer to get there than others.

Principal Nadeau believes that interdisciplinary learning is critical to achieving the vision set out in Nokomis’ graduate profile. The next step is providing intentional structure for students to “have that awareness to own their performance in those areas” of the profile. Nadeau is developing a process to help students and staff synthesize their learning experiences to track and make sense of what they are doing at school. Her vision is an umbrella system to regularly prompt student reflection, aligned with the graduate profile, that is part of the regular routines and rhythms. This structure will help students build up a body of evidence of their progress and encourage them to make connections about memorable learning experiences. The staff are still coalescing around this vision and experimenting together to see how to add up learning experiences to be more than the sum of the parts.

Career development education

The profile of a graduate survey revealed that the Nokomis community wanted “students to be employable right away.” The Career and Education Development department took this value to heart. All Maine high school students must gain certain career preparation credits, but at Nokomis students can complete these in subject-specific class periods with teachers dedicated to guiding them through a robust career exploration curriculum. The programming moved out of the advisory period into updated course names that are explicit about what students are learning and doing (e.g., from “Junior Judgements” to “financial literacy”). The program is schoolwide and spans the high school experience: units and timelines align to students’ other school subjects and support their personal goals. Through these units, every student gains tangible work experience culminating in a senior project. Their final capstones involve the entire school community and external partners in mock interviews and presentations.

Nokomis students participate in work experience not only to inform their postsecondary planning but also to learn and practice skills such as time management, personal finance, and responsibility. Career Department chair Prescott is a big believer in career exploration for young people, and one particularly fruitful route is through the school’s connection to the Tri-County Technical School. Oscar is one of many Nokomis students who participated in a culinary skills course. He thought that the experience was beneficial to him because “it reflects what a job is going to entail while you’re there. So if you’re doing it and you’re like, ‘Well, I don’t really like this,’ so what? You still have it on your resume . . . and those are lifelong skills.” In learning to juggle both school and work, Oscar found that “this year has been the best for

my grades. And not because it was the easiest year, but because I really had to take hold of it and taking a hold of it made them better.” He demonstrated greater ownership over his high school responsibilities when balancing them with external work experience, which enhanced his learning and development at both institutions. Students coming out of the program regularly secure jobs as a result of their training, and those who do not still recognize the appeal of the pathway for their personal growth.

Learning outside traditional classroom walls

One word repeatedly came up in conversations with Nokomis staff: learning must be authentic, which they defined as connected to the world outside of school. The school has built out structures that provide students with opportunities to learn in settings beyond the traditional classroom and curriculum. These include guest speakers, student-led courses, independent projects, and a dedicated staff member to coordinate this work. Nokomis is located in a rural setting, but students have wide-ranging opportunities to pursue their interests, both on and off-campus, as well as outside of the local community. One student commended the flexibility, sharing how he wanted to learn poetry and was able to make it an independent study period while a teacher started up a class for him next semester. Several other students ended up signing up for the class too, reinforcing that students have ideas, inspiration, and options for how they spend their learning time in school when staff are well-positioned and supported to embrace student agency and schedule fluidity.

Cara Flannery, the ELO coordinator, is on a mission to authentically weave the career education program into other academic pursuits by supporting teachers to incorporate more real-world and job-related skills into core lesson-planning. Even in core subjects, teachers regularly invite guest speakers to share their perspectives and discuss how to apply the skills covered in lessons, thereby linking students into a wider network of educational and professional connections. One student, Samantha, described how she decided to do an internship, saying, “You can go anywhere in the school and people just point you in the right direction and get you involved in whatever you’re interested in. Especially when it comes to things like internships. . . . That was really easy to get through our ELO coordinator.” Some students’ personal projects and work experiences develop into something more: a reason to come to school and a mission fueling their next steps. Samantha added that gaining firsthand experience in the publishing industry at a young age has clarified for her that “this is for sure my career path and this is something I want to do.”

Change management

While many innovative practices at Nokomis have emerged organically, intentional strategies are in place to cultivate staff creativity while ensuring that efforts are coordinated to supplement students’ academic success. Principal Nadeau embraces a variety of approaches to ensure that both staff and students remain nimble and focused on growth. The school has invested in training, incentivizing staff to participate in professional development—even using grant money to support internal collaboration and meeting time. When it comes to inspiring teachers and drumming up interest in student-centered learning, Nadeau said, “At the root, you have to give a reason about why this is good practice.” She identified passion for the teaching practice and a reflective attitude as something she looks for when hiring staff, and further backs up her

interest in experimenting with dynamic practices by incentivizing staff to participate in external professional development, such as statewide committees and national conferences.

This open and collaborative learning environment among the Nokomis staff is also leading to increased alignment in their teaching practices. Instructional coach Kasie Giallombardo identified that “those inner, organic conversations really spur a lot of those innovative things” and commended the school’s successful combination of the “methodical planning foundation coupled with people feeling comfortable enough to take risks.” Staff know they can experiment, as long as they share back anything that they find valuable so that successful ideas spread throughout the school. Looking back, Nadeau said, “We needed to move away from the notion that a curriculum is a packaged item somebody gives you and tells you what to do.” After seeing some of the initial successes of implementing the foundational practices on increased student engagement, Nadeau is setting firmer expectations around the Nokomis-brand of immersive instruction. For the first time this year, nearly every staff member implemented at least one project-based learning unit. Kasie Giallombardo added, “At some point, you need somebody internally to model what it could look like.” These strategies expose the school community to strong examples of interdisciplinary curriculum, project-based learning, and work-based learning which then bolsters them to try out new ideas, reflect, and improve.

Conclusion

While the journey is ongoing, Nokomis Regional High School is pioneering an ambitious experience that pushes past barriers—between student and teacher, school and community, rural and urban—to meaningfully prepare students for the world outside of high school. The school’s instructional model is designed to consistently challenge students to be active learners and explore career development work that readies and excites them for their next steps. Student opportunities, from internships to electives to classroom assignments, are responsive to individual student interests, enabling students to take charge of their own high school experience. All of this resulted from school leadership listening to their community, staff, and students, and walking away with an unshakeable sense that there’s a more authentic way to educate high schoolers—and the time it takes to go down that path is time well spent.

Some questions remain, including:

- How might educators balance interdisciplinary instruction with grade-level standards for each subject?
- How might high schools develop a professional culture of risk and reflection in an accountability setting?
- How might high schools create flexible pathways for students to design components of their own high school experience?
- How might high schools ensure a balance between dynamism, coherence, and quality in the student experience?

About the Author

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About the Center on Reinventing Public Education

CRPE is a nonpartisan research and policy analysis center at the University of Washington Bothell. We develop, test, and support bold, evidence-based, systemwide solutions to address the most urgent problems in K-12 public education across the country. Our mission is to reinvent the education delivery model, in partnership with education leaders, to prepare all American students to solve tomorrow's challenges. Since 1993 CRPE's research, analysis, and insights have informed public debates and innovative policies that enable schools to thrive. Our work is supported by multiple foundations, contracts, and the U.S. Department of Education.

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