RREV Academic Innovation Sustainability Template

This template provides an outline of the components required of a RREV Innovative Pilot Sustainability Plan. The information in this template will serve as the basis for requests for schools/districts to proceed with an individually designed RREV Pilot Sustainability Plan.

Section 1: Define the Primary Sustainability Need

Sustainability for your pilot innovation can be described in three different levels of impact which we will define below.

Maintain – Least amount of contextual change. You are basically working with the same group of students and teachers to solidify the potential impact of your pilot and gather enough data to consider the pilot's potential in new contexts.

Spread – Innovation or reform implemented in greater numbers of **similar grade level classrooms** and includes the activities, structures, materials, and underlying beliefs, norms, and pedagogical principles associated with the change strategy. –Coburn, 2003

Scale - Innovation or reform is implemented in greater numbers of **diverse grade level classrooms and schools** and includes the activities, structures, materials, and underlying beliefs, norms, and pedagogical principles associated with the change strategy.

A. In the table below, select the level of impact and describe the pilot-identified student needs / problems that your plan will continue to address for both the 2023/2024 school year and for the next 3-5 years.

2023 / 2024 School Year
Identify: MAINTAIN:
Define sustainability need(s):

A high percentage of our students could benefit from increased engagement and connections with their studies. Lake Region Middle School has a high need for an innovative change that reduces truancy and disruptive behaviors and increases student academic engagement. We aim to continue to address these student needs by elevating and prioritizing outdoor learning. Students perform better in school when their curriculum includes outdoor education. Multiple studies report that students who enjoyed outdoor education experienced enhanced attitudes about school, improved in-school behavior, improved attendance, and overall enhanced student achievement.

Studies compiled by the Children and Nature Network (C&NN) show that daily exposure to natural settings increases children's ability to focus, enhancing cognitive skills. Outdoor learning has also been shown to reduce stress and improve sleep, according to research from the National Wildlife Federation. For all of these reasons, and many other benefits such as nurturing imagination, uplifting the senses, and promoting happiness and productivity, we will maintain our pilot to ensure that all LRMS students are experiencing outdoor and nature-based learning.

3-5 year plan
Identify: MAINTAIN / SPREAD / SCALE

Define sustainability need(s):

The student need of access to outdoor and place-based learning that improves student health and wellness, improves academic outcomes as well as improves in-school behavior is not a need that will go away. The 3-5 year plan will be to continue to connect students to the outdoors and for students to receive consistent exposure to place-based and outdoor learning in order to ensure all students have access to the benefits of increased engagement through nature.

B. Identify which additional students would be impacted, targeted, or supported as a result of your sustainability plan.

Review and describe the evidence (quantitative and qualitative data and research) that demonstrates the impact your pilot had on the original student populations and describe how this data informs your choice to Maintain / Spread / Scale.

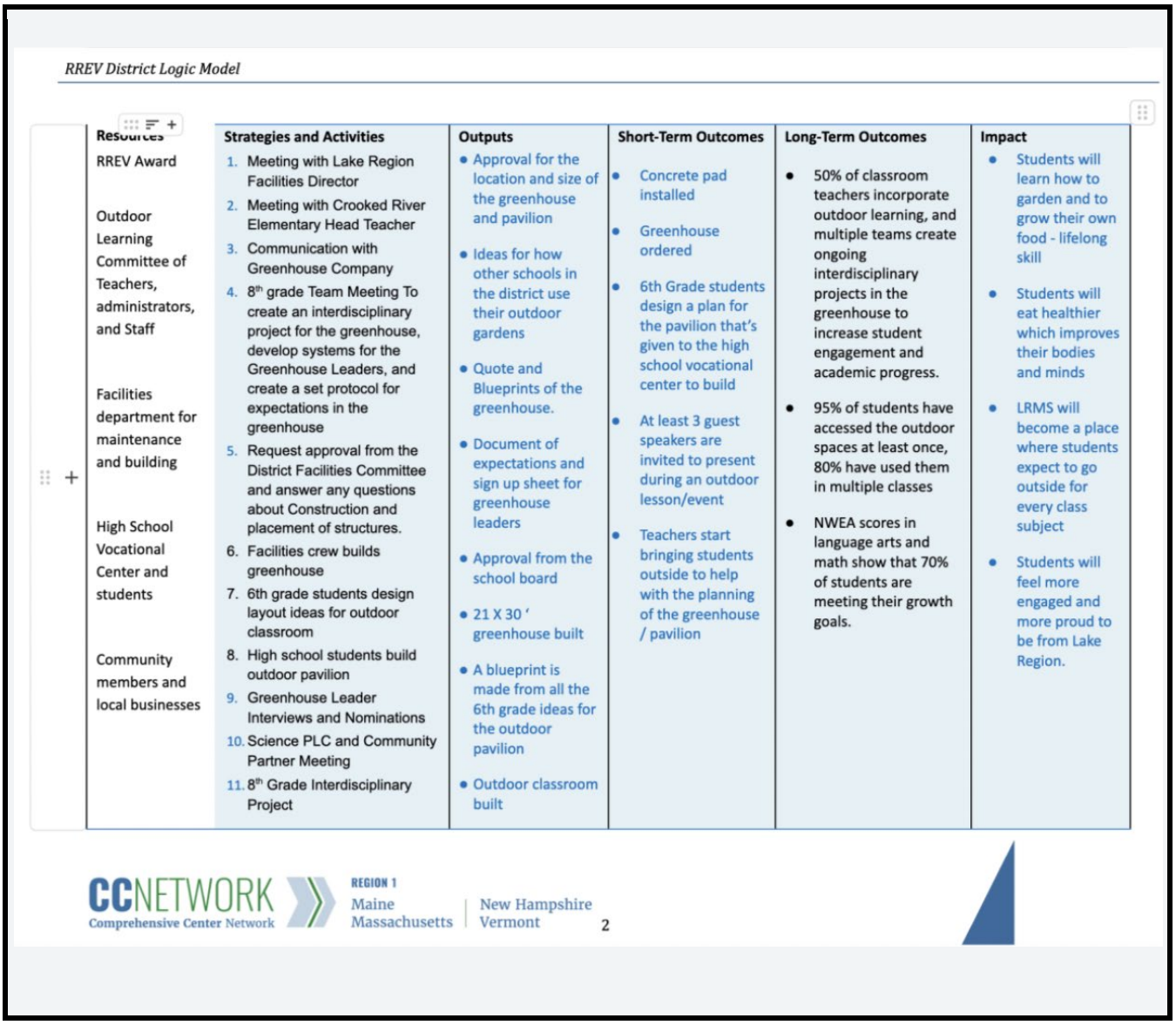
Use data that will provide evidence your innovation supports the target student population. This may include the performance of various groups of students (e.g., students in rural locales, students from low socio-economic conditions, students with disabilities, students who are Els, students at risk for dropping out, student who are homeless) with regard to academic achievement, graduation rates, social emotional and mental wellness, economic data, and/or workforce participation.

It is clear, based on our recent teacher survey data that right now fewer than half the LRMS teachers are frequently providing outdoor learning opportunities to their students. This seems to be based on their teacher's comfort level with classroom management and their ability to tie outdoor learning to the content they are teaching. In order to ensure that all of our students experience more relevant and engaging learning experiences through outdoor learning moving ahead with our sustainability plan, we will be using inexpensive structural supports to spread access to outdoor learning so that it isn't something that just happens in a couple of classrooms, but throughout the school and across every content area.

With the goal of reaching more staff, more students would have the opportunity to participate in outdoor learning as they progress throughout the day. Additional data needs to be collected and specifically comparing the students that had more outdoor learning experiences than those that did not, but initial data indicates positive improvement in many goal areas such as a reduction in Office Referrals and reduced truancy. Last year, the majority of the students impacted by outdoor learning experiences were in eighth grade. With these new initiatives and as more teachers become comfortable with taking classes outside, students from sixth to eighth grade can expect to experience the benefits of outdoor learning in at least one of their classes throughout their week.

Section 2: Data Informed Sustainability

A. Provide the Logic Model your school used to implement your Pilot



RREV District Logic Model

Resources	Strategies and Activities	Outputs	Short-Term Outcomes	Long-Term Outcomes	Impact
RREV Award Outdoor Learning Committee of Teachers, administrators, and Staff Facilities department for maintenance and building High School Vocational Center and students Community members and local businesses	1. Meeting with Lake Region Facilities Director 2. Meeting with Crooked River Elementary Head Teacher 3. Communication with Greenhouse Company 4. 8th grade Team Meeting To create an interdisciplinary project for the greenhouse, develop systems for the Greenhouse Leaders, and create a set protocol for expectations in the greenhouse 5. Request approval from the District Facilities Committee and answer any questions about Construction and placement of structures. 6. Facilities crew builds greenhouse 7. 6th grade students design layout ideas for outdoor classroom 8. High school students build outdoor pavilion 9. Greenhouse Leader Interviews and Nominations 10. Science PLC and Community Partner Meeting 11. 8th Grade Interdisciplinary Project	• Approval for the location and size of the greenhouse and pavilion • Ideas for how other schools in the district use their outdoor gardens • Quote and Blueprints of the greenhouse. • Document of expectations and sign up sheet for greenhouse leaders • Approval from the school board • 21 X 30 ' greenhouse built • A blueprint is made from all the 6th grade ideas for the outdoor pavilion • Outdoor classroom built	• Concrete pad installed • Greenhouse ordered • 6th Grade students design a plan for the pavilion that's given to the high school vocational center to build • At least 3 guest speakers are invited to present during an outdoor lesson/event • Teachers start bringing students outside to help with the planning of the greenhouse / pavilion	• 50% of classroom teachers incorporate outdoor learning, and multiple teams create ongoing interdisciplinary projects in the greenhouse to increase student engagement and academic progress. • 95% of students have accessed the outdoor spaces at least once, 80% have used them in multiple classes • NWEA scores in language arts and math show that 70% of students are meeting their growth goals.	• Students will learn how to garden and to grow their own food - lifelong skill • Students will eat healthier which improves their bodies and minds • LRMS will become a place where students expect to go outside for every class subject • Students will feel more engaged and more proud to be from Lake Region.

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B. Describe the data you collected about your innovation pilot outcomes that will be used to inform and shape your plan to MAINTAIN / SPREAD / SCALE

Outdoor learning and place-based education are gaining traction within our school. Last year, 40% of LRMS teachers reported taking students outside only a couple times a year. This year, however, we have already seen an increase in the number of teachers who have been challenging themselves to incorporate outdoor learning. For example on September 22, 2023, at least 10 different teachers utilized the outdoor classrooms and trails around the school. Of these ten teachers, about half of them mentioned that they had never even considered leading outdoor lessons before, but that they were inspired by other teachers' enthusiasm for outdoor learning. These data were collected through student and staff surveys, anecdotal interviews, and our new outdoor classroom sign-out form.

We are still a work in progress for meeting the original goals of our RREV award because of the slow pace of building a greenhouse on our campus, but as early data this year demonstrates, we are making progress increasing outdoor learning opportunities for more students so that more students have access to the benefits, such as, improved enthusiasm for learning, improved in-school behavior, and improved attendance..

It was clear from our staff survey that we need to take action to build staff comfort with, and expanded content-area connection to place-based learning. While many teachers see the value for students, 60% of respondents seemed to have difficulty finding a way to incorporate place-based learning into their own practice. 12 teachers of 30 (40%) incorporated outdoor learning into their course over the year. Of the 260 students who completed the survey, 80.8 percent reported accessing the outdoor learning spaces multiple times over the course of the year.

We collected a variety of types of data to inform us and give a clearer picture about student engagement in Lake Region Middle School. These included Office Discipline Referrals, NWEA test scores, Truancy Letters, and Student and Staff Surveys. Comparisons to the 2021-22 school year compared to the pilot implementation year of 2022-23 showed improvement and/or growth in all areas. For example, a 52% reduction in total Office Discipline Referrals was noted. However, since as mentioned above, not all students had the same access to the benefits of outdoor learning we cannot at this time draw conclusions linking the improvements specifically to our RREV outdoor learning innovation. One way that we may be able to determine a reliable connection would be to focus this information specifically on the 8th grade which had the majority of the students impacted by outdoor learning experiences.

C. List new data that you will need to collect to further inform and shape your plan to MAINTAIN / SPREAD / SCALE

New data we will need to collect to inform and shape our plan to maintain our LRMS Outdoor Learning Spaces program will include more detailed student and staff surveys to better understand who is going outside, what they are teaching and learning, and which spaces they are using. We will conduct these surveys in June 2023, October 2023, and June 2024. We will need to add a question to our student and staff surveys that makes it clear how often students are experiencing the benefits of nature based and outdoor learning each week.

Section 3: What is the intended impact of your sustainability plan

A. Describe the goals of your sustainability plan.

Consider how your plan will continue to meet the needs of the identified target student population(s) and describe changes in policy, practice, or structures necessary to MAINTAIN / SPREAD / SCALE your innovation.

2023 / 2024 School Year

We need to create a shift in our school's culture and systems, so that our students' access to the many benefits of outdoor and place-based education is not dependent upon science and math teachers, and they are able to get outside while learning a variety of subjects. This is especially important because staff turn-over may continue to be a trend. Students only gain the deeper benefits of outdoor education if they regularly experience outdoor education, and teachers are the gate-keepers. It was clear from our staff survey that we need to take action to build staff comfort with, and expanded content-area connection to place-based learning. While many teachers see the value for students, 60% of respondents seemed to have difficulty finding a way to incorporate place-based learning into their own practice.

Each year, our school generally experiences a large influx of new staff. This year, we have five new staff members, including a new principal. We plan to embed familiarity with our outdoor resources into new staff orientation for the school year and to create an online database of example outdoor lessons. Along with letting new teachers and staff know about the resources outside, we plan to create a space for outdoor gear and equipment to be stored in our school where every teacher can access it to bring students outside in multiple types of weather.

Our school yard boasts three different trail systems, a greenhouse, and an outdoor classroom in the woods. The greenhouse is supported by the after school Garden Club and the Family and Consumer Sciences class, and we have access to a wide variety of outdoor class materials and equipment. All of these invaluable resources should become familiar upon entry to anyone coming into our school.

By embedding outdoor education into new staff training and rewarding ongoing peer-to-peer collaboration and coaching, the return on campus infrastructure investments will be improved, and we will better serve the vision of the RREV award.

Define sustainability need(s):

- Increase pedagogical expertise among new staff: How do you teach outdoors?
- Increase teacher buy-in through providing stipends for outdoor and place-based lesson plans
- Increase outdoor teaching supplies in our school— rain boots, ponchos, snow jackets, etc.

This additional funding will allow us to on-board new teachers and new administrators as well as reward those veteran teachers who already embed outdoor learning into their school year. **The benefits of outdoor learning help students and staff across disciplines and ages**. The funding will allow us to expand on the resources we have already have in place. The goal is through consistent support, proper gear for the weather, rewards and reflection, our students as a whole will experience outdoor learning throughout the school year.

Milestone 1:
Embed place-based, hands-on, outdoor learning and behavior management strategies into professional development sessions for teachers. By doing this, we will be able to create a team of teachers willing to encourage and support others in their outdoor education endeavors. Our Outdoor Learning Committee is already planning a PD session for an upcoming staff meeting this year, and we will continue to work with a supportive administration who sincerely encourage hands-on outdoor learning.

Milestone 2
Teachers will be paid a stipend for writing place-based lesson plans so that we've created an in-house bank of them for other teachers to implement, or use as examples/inspiration as they begin to create their own plans. These documents will live in a Shared Google Drive folder that all staff members can access. The lesson plans will follow a template, be aligned to curriculum and standards, and be subject to approval from our school administrators.

Milestone 3:
Create a calendar of projects that can or should happen to make best use of the greenhouse during the year. Some of the projects may also have a lesson plan attached, thanks to Milestone 2. We will work on creating the chart during the 2023-24 school year so it can be used as a planning resource in future years. Teachers and administrators will be able to see at a glance some of the learning opportunities- and yes, service learning- that needs to happen to sustain our campus garden. We will set up a system to determine which teachers get each job and make sure necessary work is covered.

Milestone 4:
Designate a supply closet space in LRMS where teachers can access outdoor learning supplies and gear for all weather. We will purchase rain boots, ponchos, snow boots, jackets, hats, and mittens to encourage teachers to incorporate outdoor education in all types of weather. These supplies will be stored in a space near a door where they will be able to be hung up to dry after a class's excursion outside. This will hopefully help to eliminate the thinking that the weather is not right for outdoor learning.

3 – 5 Year Plan

In the years beyond the RREV funding we will need minimal funding to support the systemic changes that we have made to improve student engagement, in-school behavior, and attendance through relevant and meaningful outdoor and nature-based learning experiences. The following will be implemented to sustain this pilot program beyond the RREV funding:

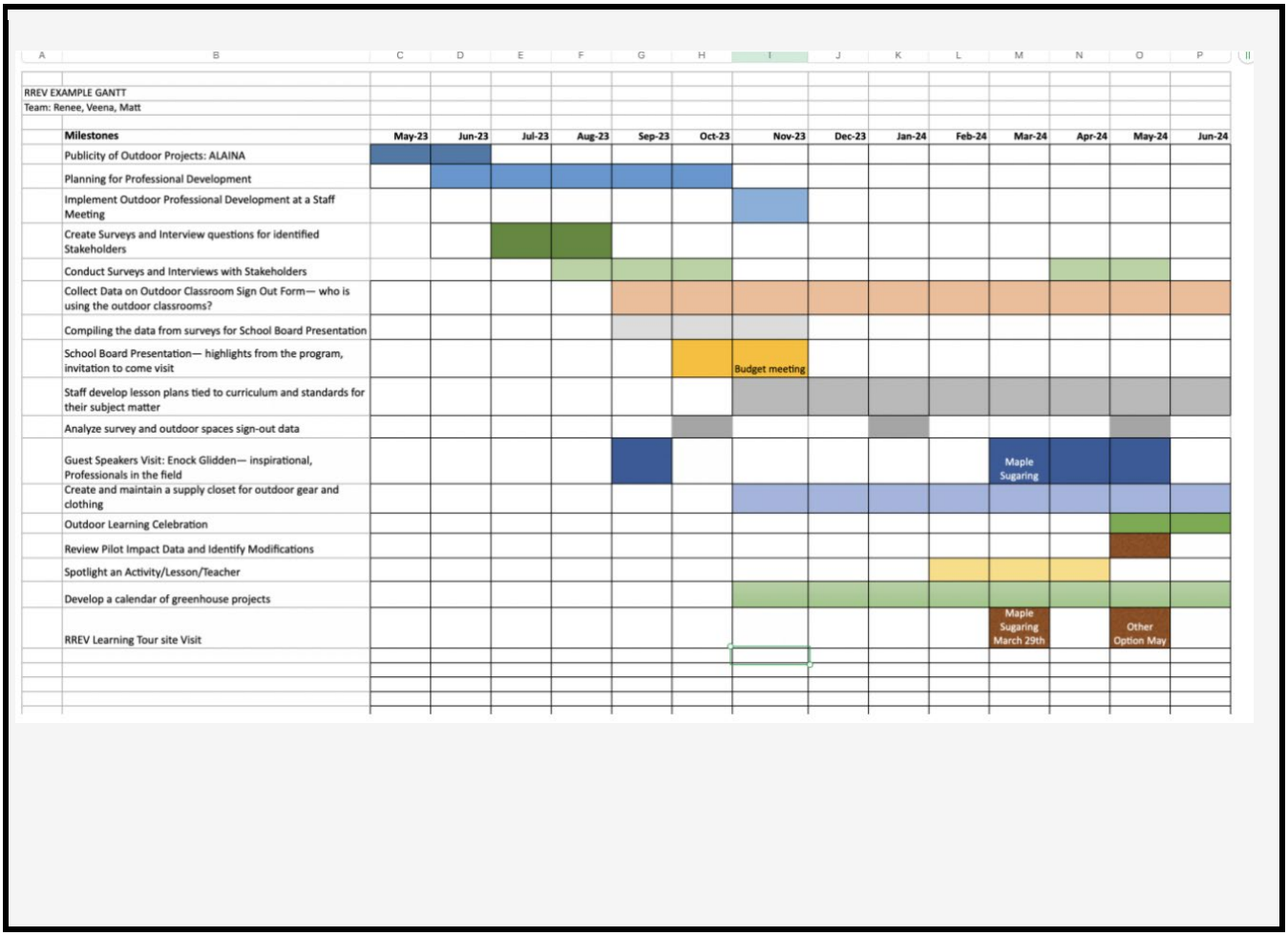
- Training at new staff orientation will be developed and in place
- A Shared Google Drive folder of outdoor learning and place-based lesson plans with grade levels and standards will be established
- A closet of outdoor supplies and gear will be established for teachers to take students outside in all weather.
- The district's budget will support trail maintenance and equipment replacement/repair and electricity and heating in the greenhouse.

We will also be using our school's budget for a portion of the costs that will be required to maintain this systemic change. The local budget will cover costs to ongoing trail maintenance, replacement of outdoor learning gear and equipment as well as repairs that may be needed for our equipment.

The following changes will need to made to ensure the success of the Sustainability Plan:

- Policy Change: The district's Energy Conservation and Management Policy will need to be updated to enable us to heat the greenhouse throughout the winter. This will be essential to allowing the greenhouse to be used throughout the year.
- LRMS will update the policies and forms for volunteers to fill out to make accessing the greenhouse more streamlined, especially for summer volunteers.
- Update district policies on food, use of facilities, and curriculum to ensure that food that is grown at school can be used by the cafeteria and teachers.
- Continued partnerships with the Lakes Environmental Association and the Loon Echo Land Trust to continue our outdoor education partnerships.
- Creation of a grassroots professional development series to help encourage a wider variety of teachers to bring their students outside. This is already started with the Outdoor Learning Committee creating a professional development series for LRMS teachers.
- Work with our district's elementary schools who also have greenhouses or school gardens to better scaffold our outdoor learning initiatives. This will be essential as we try to scaffold our outdoor learning instruction across the district.
- Check in with the School Board Curriculum Committee to ensure and demonstrate how the standards can effectively be taught in an outdoor learning setting.

C. UMaine GANTT Chart



RREV EXAMPLE GANTT
Team: Renee, Veena, Matt

Milestones	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24
Publicity of Outdoor Projects: ALAINA														
Planning for Professional Development														
Implement Outdoor Professional Development at a Staff Meeting														
Create Surveys and Interview questions for identified Stakeholders														
Conduct Surveys and Interviews with Stakeholders														
Collect Data on Outdoor Classroom Sign Out Form— who is using the outdoor classrooms?														
Compiling the data from surveys for School Board Presentation														
School Board Presentation— highlights from the program, invitation to come visit							Budget meeting							
Staff develop lesson plans tied to curriculum and standards for their subject matter														
Analyze survey and outdoor spaces sign-out data														
Guest Speakers Visit: Enock Glidden— inspirational, Professionals in the field											Maple Sugaring			
Create and maintain a supply closet for outdoor gear and clothing														
Outdoor Learning Celebration														
Review Pilot Impact Data and Identify Modifications														
Spotlight an Activity/Lesson/Teacher														
Develop a calendar of greenhouse projects														
RREV Learning Tour site Visit											Maple Sugaring March 29th		Other Option May	

Section 4: Identify Key Expenses and Necessary Resources

A. Describe budget expenditures and necessary resources required to MAINTAIN / SPREAD / SCALE your innovation THROUGH June 2024

Essential Expenditures:

- Staff stipends for lesson plan creation $2,500
- Outdoor Equipment $5,500
- All Weather Gear $6,000
- Lumber for Boardwalk expansion and tables in greenhouse $6,000

Necessary Resources:

- Teacher time— dedicated to building trails, maintaining greenhouse, etc
- Outdoor Learning Committee
- Supply closet set up so that all teachers can access outdoor gear
- three different trail systems, a greenhouse, and an outdoor classroom in the woods

- Greenhouse support provided by the after school Garden Club and the Family and Consumer Sciences class
- Access to a wide variety of outdoor class materials and equipment.

B. Describe budget expenditures and necessary resources required to MAINTAIN / SPREAD / SCALE your innovation BEYOND June 2024

Expenses could include staff time, materials, professional development activities, facilities, and other related expenses. This section does not need to include specific costs, but rather list out the different costs that should be considered to implement the innovation.

Essential Expenditures:

- Replacement of gear - rain pants, ponchos warm/waterproof gloves, rain boots, snow boots, etc. **($500)**
- Replacement of equipment used for outdoors - wooden benches, storage containers, binoculars, hand held microscopes, hand lenses, boardwalks, bridges **($1500)**
- Buildings and grounds staff time for trail maintenance **($3500)**

These things will allow LRMS to go outside in all types of weather and to build upon or repair the infrastructure that already exist on our grounds. We will also be using students to build many of the benches, bridges, and boardwalks, so these funds will directly impact students' experiences with outdoor learning.

Necessary Resources:

- Teacher time— dedicated to building trails, maintaining greenhouse, etc
- Outdoor Learning Committee
- Supply closet set up so that all teachers can access outdoor gear
- three different trail systems, a greenhouse, and an outdoor classroom in the woods
- Greenhouse support provided by the after school Garden Club and the Family and Consumer Sciences class
- Access to a wide variety of outdoor class materials and equipment.
- Student volunteers
- Community Volunteers
- District Budget for greenhouse maintenance
- Administrative upkeep of the Shared Google Drive

We are still developing a system for gathering community and student volunteers, but the school is prepared to add in budget lines for gear replacement and greenhouse maintenance. By including these resources, we will allow for the RREV award to continue beyond the initial funding period.