

## Overview

The Environmental Literacy Plan (ELP) must address how the school will implement its environmental education program (EE) and measure progress toward its contractual goals. The ELP must address how all students in the school will move along the awareness to action continuum toward becoming more environmentally literate. The school does not have to identify specific activities for all grade levels in each Indicator Area, but may choose to target activities in one or more Indicator Areas to a certain age group or grade. However, all grade levels the school serves must be identified in the ELP.

In each Indicator Area, the school must identify one or more strategies it will implement to achieve the goal, and how it will measure whether students are achieving or making progress toward the identified goal.

There are a variety of ways to track student growth in these areas. By far the biggest challenge is gathering the data. It must be a school-wide effort to implement evaluation tools and assessments, gather data, and report that data to the EE Coordinator, school leader, or other person identified in the school. OW will gather data about the school's progress toward its EE goals through a variety of tools, including the EE Survey and Annual Report.

The following pages contain an Environmental Literacy Plan template. Each section states the goal and requires the school to identify a strategy for implementation and an evaluation method for determining if the strategy effectively moved students toward the goal. You can think of the goal as a destination, a strategy as your road map for getting there, and the evaluation method as a compass to tell you if you're on track.

## Indicator Area 1: Awareness

*Students demonstrate an awareness of the relationship between the environment and human life and the diversity of life that shares the earth with humans.*

**Goal:** Students and staff *Crosslake Community School* have the awareness, or are increasing their awareness, of the relationship between the environment and human life.

### Strategy 1.1

- Students in grades 5-8 will learn that different instruments come from different materials from the environment.

### Evaluation method 1.1

- Students in grades 5-8 with an attendance rate of 90% or higher within the October 2021 snapshot will be given a pre and post test, identifying different instruments and the materials they are made of. 85% of the students will be able to obtain 85% or higher via the post test.
- **Results:**
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### Strategy 1.2

- Pre-K and K students will learn what monarchs need to survive by raising and observing monarch butterflies from egg to adult.

### Evaluation method 1.2

- Students in grades PK and K with an attendance rate of 90% or higher within the October 2021 snapshot will observe the monarch butterflies using a journal. 75% of the students who have been in attendance using the aforementioned criteria will be able to identify the stages of monarch butterflies with 100% accuracy and what they need to survive in each stage by May 2022.
- **Results:**
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### Online Strategy 1.1

- The student will understand that human activity has consequences on living organisms and ecosystems and that personal and community health can be affected by the environment, body functions and human behavior.

### Online Evaluation Method 1.1

### Crosslake Community School 2021-22 EE Survey

- Students in online 10th grade Biology B will take a pretest (considered an assignment not to be exempted) composed of 20 questions and the results will be documented. Upon completion of the unit, the student, if he/she has fulfilled the attendance and time requirement, will increase their initial score by at least 10% on the posttest/assignment.
- **Results: Thirty-five (35) students in 10th grade Biology B completed both the pre and post tests.** The average score for this group on the pretest was 73.29% The average score for this group on the posttest was 82.86%. This is an increase of 9.57%.
  - **19 out of 35 (54.29%) increased their scores by 10% or more, with an average increase of 21.32%.**
  - **25 out of 35 (71.43%) increased their scores by 5% or more, with an average increase of 17.40%.**
  - **30 out of 35 (85.71%) got the same score (0% increase) or improved with an average increase of 14.5%.**
  - **5 out of 35 (14.28%) decreased their scores by 5% or more, with an average decrease of 20%.**
  - **If we eliminate the highest and lowest changes in scores, the average increase of those 33 students is 10.91%.**

## Indicator Area 2: Knowledge

*Students have knowledge of how natural systems function and how human systems interact with and depend on them.*

**Goal:** Students and staff at *Crosslake Community School* have the knowledge, or are increasing their knowledge, of human and natural systems and processes.

### Strategy 2.1

- 5th grade students will be able to describe, compare and contrast how soil is made in nature (such as in forests) and how soil is made through composting.

### Evaluation method 2.1

- Students in Grade 5 with an attendance rate of 90% or higher within the October 2021 snapshot will compare and contrast forest soil with composted soil within a field journal with drawings, labels, and explanations. 85% of students will be able to reach a level 3 knowledge or above.
- **Results:**
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4	3	2	1
In addition to 3 level knowledge, students will be able to identify additional factors that create soil including proper moisture and heat. They will be able to hypothesize the time it takes to create soil in nature and in compost.	Students draw, label, and explain how organic matter combines with weathered rock over time in a natural system. They will be able to identify and explain how invertebrates and microorganisms help to breakdown organic matter within a natural system and within composting.	Students will be able to identify that there are layers in soil in natural systems and organisms that live within.	Students understand that soil grows plants and is needed for food.

### Online Strategy 2.1

- In a module in online 9th grade Physical Science B, students will increase their knowledge on biodiversity and to raise awareness for its conservation. Students will participate in a learning module on biodiversity.

### Online Evaluation Method 2.1

- Students in online 9th grade Physical Science B will be given a pretest to assess their knowledge and attitudes on biodiversity prior to accessing the module including “Why is biodiversity important and how can it be preserved?” Upon completion of the unit the students will be tested again to see how their understanding/attitude has changed. The expectation is each student will increase their initial score by at least 10% if they fulfill the time requirement necessary to finish the module.
- **Results:**
- **Class Scores: Pre-test Average class grade was 7 correct out of 13 questions (7/13) for a percentage of 54%. Post-Test Average class grade was 11 correct out of 13 questions (11/13) for a percentage of 85%. Therefore the average class score went up 31%.**

- **Individual Scores:** 12/21 (57%) of the students improved their score by 15%-75% / 3/21 (14%) of the students improved their score by 0-15% / 6/21 (29%) did not improve their score.

## Indicator Area 3: Attitudes

*Students demonstrate respect and concern for the earth's health and the motivation to participate in environmental stewardship.*

**Goal:** Students and faculty at *Crosslake Community School* have an attitude, or are increasing their attitude of, appreciation and concern for the environment.

### Strategy 3.1

- Students will regularly read environmental debate topics in monthly issues of Scholastic SCOPE Magazine. 5th grade students will select a topic, determine a position, and create media to inform members of their school community.
- **Evaluation method 3.1**
- Students in 5th grade LA class with an attendance rate of 90% or higher within the October 2021 snapshot will also complete a before and after survey to explore and evaluate the change of their attitudes related to the topic upon conclusion of the unit. 80% of the students will have found a change in their attitude towards the topic based on the survey.
- **Results:**
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### Strategy 3.2

- Students in 6th grade health class will compare and contrast the packaging of various items and will identify ways to minimize waste. They will write about their feelings regarding over packaging of items.

### Evaluation method 3.2

- Students in 6th grade health class with an attendance rate of 90% or higher within the October 2021 snapshot will write a pre and post statement and/or take a pre and post survey of how they feel about the amount of packaging for items and how too much packaging/material waste affects the Earth. Ninety percent of students will increase their attitudes towards packaging and material waste for at least 3 questions/categories.
- **Results:**

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**Strategy 3.3**

Students in grade 8 with an attendance rate of 90% or higher with the October 2021 snapshot will calculate CCS plastic consumption for one day. They will then design solutions to reduce the volume of plastic within our school.

**Evaluation method 3.3:**

Students will create models based off of Precious Plastic principles/machines.

They will then calculate the volume of CCS plastic before and after shredding. They will then compare and contrast plastic volume numbers before and after shredding.

Students will write statements comparing and contrasting their before and after numbers and write an opinion statement on plastic consumption.

85% of students will receive a 3 or above on the rubric.

- **Results:**

○

	4	3	2	1
Math	Students will calculate before and after plastic volume with 90% accuracy or above.	Students will calculate before and after plastic volume with 75% accuracy.	Students will calculate before and after plastic volume with 60% accuracy.	Students will calculate before and after plastic volume with 50% accuracy or below.
Attitude	Students will clearly articulate the negative effects of plastic volume and will design further methods to reduce plastic consumption at our school and personally.	Students will demonstrate the negative effects of plastic volume at our school and clearly articulate at least 1 thing they could personally do to reduce their plastic consumption.	Students will be able to articulate the negative effects of plastic volume at our school.	Students will understand that plastics are undesirable for the environment.

**Online Strategy 3.1**

## Crosslake Community School 2021-22 EE Survey

- K-5 online students at CCS will show their attitudes about interacting with the environment through an end-of-year environmental stewardship attitudes survey. With 70% of our students showing a high scale of concern for the environment and their ability to affect it. Throughout the school year, they will participate in a variety of environmental activities including virtual experiments, field trips, and activities designed to increase awareness of the human effect on nature. We will also focus on ways in which we can minimize our negative impact on nature through everyday choices.

### Online Evaluation Method 3.1

- A survey will be given to our online students in grades K-5 toward the end of the year. The test will be given orally, with students answering either positively or negatively to each statement. It will be given orally in order to accommodate all age ranges and reading abilities. The expectation is that 70% of the students surveyed will answer 9 or more of the 15 questions with a positive response. Thus showing a positive attitude towards environmental stewardship.
- **Results: 25 of our 31 elementary students completed the Stewardship Survey. Of the 25 students who completed the survey, 100% of the students answered at least 9 out of 15 of the questions with a positive response**

## Indicator Area 4: Skills

*Students possess the skills needed to identify and critically analyze environmental issues, and to contribute to resolving the root of environmental challenges.*

**Goal:** Students and faculty at *Crosslake Community School* have or are increasing their problem solving and critical thinking skills as it relates to the environment and human life.

### Strategy 4.1

- Students in grades 1 and 2 will be able to sort between recyclable and reusable materials.

### Evaluation method 4.1

- Teachers will monitor this skill with at least 80% of the 1st and 2nd grade students with an attendance rate of 90% or higher within the October 2021 snapshot will be able to sort their trash without prompting. The following checklist will be used:

# of students that could sort between recyclable and reusable materials without prompting\_\_\_\_  
 # of students that could sort waste with little prompting\_\_\_\_  
 # of students who need help sorting all of the waste materials\_\_\_\_\_

- **Results:**

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### Online Strategy 4.1

- Students in the online middle level (6th, 7th, and 8th grades) environmental education will study an environmental issue that impacts society. They will analyze the various points of view on the issue and how it impacts citizens, and then participate in a synchronous debate on the issue. Students who do not participate in the debate will articulate the issue and the various points of view in writing or orally with the teacher.

### Online Evaluation Method 4.1

- In the middle school (6th, 7th, and 8th grades) environmental education class, at least 50% of students will participate in a synchronous debate on the different positions on an environmental issue (or will prepare an essay or an oral report on these positions if they cannot participate in the debate). All students who complete the debate assignment will show at least a 10% increase in awareness of the complexity of solving an environmental issue through a pre/post survey on the issue.
- **Results: 34/59 (58%) of the online middle school students participated in the debate or position paper in April 2022. They took a pre-test before and a post-test after the debate/paper (32 students did this). There was an average increase of 25% of total correct answers from the pre-test to the post-test.**
- **Individual scores: 53% (17/32) of the students increased their scores from the pre-test to the post-test ranging from 9% to 27%. 47% (15/32) held the same score or decreased their scores slightly.**

## Indicator Area 5: Action

*Students have the capacity, or are increasing their capacity, to perceive and interpret the health of environmental and social systems and take appropriate action to maintain, restore, or improve the health of those systems.*

**Goal:** Students and staff at *Crosslake Community School* demonstrate the capacity, or are increasing their capacity, to work individually and collectively toward sustaining a healthy natural environment.

### Strategy 5.1

- Students in 7th and 8th grades will raise trout from eggs and release them into a DNR designated trout lake.

### Evaluation method 5.1

- 75% of the students will be able to correctly identify the following:



*Crosslake Community School 2021-22 EE Survey*

- -basic trout needs for survival and through this they will understand their importance as an indicator species
- -compare and contrast trout at least 3 needs within the tank and within the trout lake when they are released
- -compare and contrast at least 3 advantages and 3 disadvantages of trout life within the tank and within the trout lake when they are released
- This pertains to students with an attendance rate of 90% or higher within the October 2021 snapshot.
- **Results:**
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**Strategy 5.2**

- Students in 8th grade participate in a debate surrounding an environmental issue.

**Evaluation method 5.2**

- 85% of the 8<sup>th</sup> grade students with an attendance rate of 90% or higher within the October 2021 snapshot will be able to correctly identify at least 2 pros and 2 cons of the environmental issue and create an action statement identifying why and how they will help improve this environmental issue for the better.
- **Results:**
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**Strategy 5.3**

Students in grades 3 and 4 will learn about Common Loons in Crosslake and how humans impact their population and organize an informational campaign on how people could positively impact their population.

**Evaluation Method 5.3**

- 90% of the students with an attendance rate of 90% or higher within the October 2021 snapshot will participate in an informational campaign on how people in Crosslake could positively impact the Common Loon population.
- **Results:**
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**Online Strategy 5.1**

- The online 9th-12th grade high school students will learn about the dangers of chloride in our waters and participate in the Izaak Walton League Salt Watch. They will test a water source near their home and post the results on Water Reporter. They will complete a survey on chloride dangers to the watershed before and after the civic project.

**Online Evaluation Method 5.1**

- Of the students in the 9th-12th grades online program, 60% (for year 1 of this plan, the 2021-2022 school year) of students will participate in the Izaak Walton League Salt Watch and post their results. Of the students completing the civic project, at least 50% will show an increase in desire to protect our waters from chloride contamination.
- **Results:**
  - **64% of students participated in the Salt Watch project; 12% of students took a reading.**
  - **49% of students who participated in Salt Watch and completed both surveys, showed an increase in their desire to protect our waters.**
  - **50% of students who completed the Salt Watch project, answered that they increased their desire to protect our waters.**
  - **73% of students who participated in Salt Watch and completed the post-survey, identified as somewhat or very motivated to protect our waters**

**Additional Questions: Seat-Based Program**

1. Describe the school's approach to environmental education.
2. What have been your successes and challenges related to environmental education this year?
3. What voices are being centered in the school's EE program? What voices are currently missing in the EE program?
4. Based on the results from this year, what are some of your plans for EE in the school next year? Include how you plan to increase students' environmental literacy during periods of distance learning should they occur.

**Additional Questions: Online Program**

1. Describe the school's approach to environmental education.

In the elementary program, in addition to the lessons and assignments in the curriculum, we also use nature journaling to get a better understanding of our environment. We also hold Science Wednesday each week where we do an activity or conduct an experiment each week related to the

environment/nature/human effect on nature. Additionally, our weekly newsletter contains a “Saving the World” section where we extend our Science Wednesday activity (when possible) and identify actionable steps to make a difference in our spaces.

At the middle school level, all students are enrolled in an environmental/art class (Human Encounters with Nature). The class cycles through a three year curriculum (created and taught by our middle school science and environmental education teacher). If students are in our school for grades 6, 7, and 8, they will complete all three components. The focus for each year is as follows: Watersheds, Oceans, Land/Resources. Additionally, every year students participate in nature journaling and environmentally focused art projects. All students were mailed a Jeffers Journal for completing these assignments. In addition, every year they complete a civic action project and participate in an environmental issues debate.

The three middle school science classes also cover environmental education concepts and issues, and these are reinforced by current events assignments as well as Google Meets where the topics are discussed and sometimes games (like Environmental Action Bingo) are played.

At the high school level, the science classes also cover environmental topics and are reinforced through teacher interactions with the students. There are also electives on environmental topics: Environmental Science A and B and Plant Systems.

All high school students are enrolled in an Advisory course where life management and environmental action activities are assigned. This year the environmental civic action project was Salt Watch, in which students learned about how chloride affects our waters and tested for chlorides in their local watershed. A new interdisciplinary class called “MESS-E” is being developed this summer. It stands for Math, English, Science, Social Elective. Each MESS-E project will focus on an environmental issue and students will delve into studying it from many angles. Nature journaling will also be incorporated into the class.

Our environmental ed teacher also organizes “field trips” for the students at the physical site of CCS. Students meet in the solarium at the school, walk over to learn about loons and water protection at the National Loon Center, and help with shoreline restoration projects. Here is an article in the local newspaper about one activity this year:

<https://www.pineandlakes.com/news/local/students-get-their-hands-dirty-in-crosslake-community-school-environmental-education-classes>

The secondary weekly progress email from learning coaches also has a special environmental section called the “EEBit”, which highlights phenology or environmental issues each week.

In March, all of our online teachers participated in a 3 hour virtual workshop on nature journaling for all content areas put on by The Jeffers Foundation.

2. What have been your successes and challenges related to environmental education this year?

Our elementary teachers love Science Wednesday! This has been such a fun way to get our students excited about science and the environment. They even suggest things they would like to do and try - and we try to make it happen. Even students that don't attend the actual meeting have enjoyed getting the video of it later and some even try the activities on their own. The challenge - getting all students to participate with the Nature Journal in a timely manner. They do them but they tend to do them all at the same time.

At the middle school, one success was a small club that named themselves "The Trotters" that met monthly at the school. They snowshoed, walked over to the Loon Center to learn, hiked in the forest, and did shoreline clean-up. Another success was the second year of Human Encounters with Nature. 80% of students said they cared more about protecting the environment after the class, and there has been overwhelming positive feedback about the class. The challenge—engaging and reaching at-risk students.

At the high school level, a success was having 64% of students participating in the civic action project in Advisory. Also a large percentage (at least 25%) of students took the elective "Environmental Science " and we hired a new teacher for this class (and for the Biology class). The challenge is the same as middle school—engaging and reaching at-risk students.

3. What voices are being centered in the school's EE program? What voices are currently missing in the EE program?

In the elementary program, there are only 2 teachers who work together so well. In the middle school, there is one teacher for the environmental and science classes. At the high school, the science teachers work very well together to share ideas. What has been missing is the rest of the high school teachers. However, an amazing unity and excitement to work together surfaced at the March nature journaling workshop, and has turned into a new interdisciplinary class which will allow all subject areas to participate in our environmental programming.

The online EE committee worked extremely well together and all voices were respected and heard every month. Their recommendations were taken to the staff meetings and also to the school board.

4. Based on the results from this year, what are some of your plans for EE in the school next year? Include how you plan to increase students' environmental literacy during periods of distance learning should they occur.

*Crosslake Community School 2021-22 EE Survey*

The elementary level would like to do more nature journaling together as a group in Google meets ( recording for those that don't attend the meeting). I think that through modeling the process more, students may get more excited about it.

The middle school will build on the existing successes: focusing more weekly Google meets on science, environment, and society issues in an interdisciplinary fashion. The third component of the class "Human Encounters with Nature" will involve more activities which require students to engage with their local environment, and additional civic action assignments will be given. There will be more field trip opportunities. Each of the science classes will have an additional environmental current events lesson.

The high school will require the Salt Watch civic action project again, and many students will be familiar with it the second time around, so that will increase the number of tests submitted to the national data bank. The new class "MESS-E" will have an interdisciplinary environmental project for each semester, and students will have grade level virtual meetings to collaborate on these projects. The themes were chosen for these projects: waste management and pollution (plastics from clothing), biodiversity, and climate change. Additionally, many teachers from all content areas plan to incorporate nature journaling into their classes.