COMMITTEE OF THE WHOLE - PUBLIC
SCHOOL DISTRICT 41 - BURNABY
AGENDA

Monday, February 12, 2024, 4:00 pm
Video Conference

BOARD OF EDUCATION
BURNABY
SCHOOL DISTRICT 41

4054 Norfolk Street, Burnaby, BC, V5G 0C3
Tel (604) 296-6900 Fax (604) 296-6910

Committee of the Whole Report

Date: February 12, 2024
To: Board of Education – Public Meeting
From: Kevin Brandt, Director of Instruction
Subject: Board/Authority Authorized (BAA) Courses

Background:

The Burnaby Board of Education's 2019-2024 Strategic Plan contains the following objective under the key priority **"Thriving Students"**, Goal 1 – Engage students in individualized, relevant and innovative learning opportunities:

i) Expand program options that meet the needs and interests of our student population.

Introduction:

Board/Authority Authorized Approval Process

Board/Authority Authorized (BAA) courses are offered to students in grades 10 to12 and require Board of Education approval prior to the school year in which the course will be offered. BAA courses may be developed by educators who would like to explore content beyond the boundaries of the Ministry of Education and Child Care curriculum, respond to the local needs of schools and their communities, or provide choice and flexibility for students. Prior to BAA course approval, teachers must submit a BAA Course Framework Template that lists course title, grade level, and number of credits. The report also includes course synopsis, goals and rationale, Indigenous worldviews and perspectives, big ideas, curricular competencies and content, recommended instructional and assessment components, and learning resources.

As part of the engagement process, proposed BAA courses are first shared with department members and then department heads, if necessary. Once the school principal or designate has reviewed the BAA course and feedback has been gathered, it is forwarded to the Director of Instruction or Assistant Superintendent for presentation to the Committee of the Whole.

Proposed BAA Course

Advanced Number Theory and Problem Solving 12

This course is designed for students with a passion for mathematics who are eager to explore the intricate world of number theory and its practical applications. Throughout this course, students will delve into advanced concepts such as modular arithmetic, prime factorization, Diophantine Equations, cryptography, permutations, and combinatorics. By mastering these topics, students will not only enhance their mathematical prowess but also develop critical problem-solving skills that are essential for success in various academic and professional fields.

Recommendation:

THAT the Board of Education receive this information and approve the new Board/Authority Authorized course.

Board/Authority Authorized Course Framework Template

School District/Independent School Authority Name: Burnaby School District	**School District/Independent School Authority Number (e.g. SD43, Authority #432):** SD41
Developed by: Danny Young	**Date Developed:** November 1, 2023
School Name: Moscrop Secondary School	**Principal's Name:** Chris Sandor
Superintendent Approval Date (for School Districts only): February 12, 2024	**Superintendent Signature (for School Districts only):**
Board/Authority Approval Date: February 12, 2024	**Board/Authority Chair Signature:**
Course Name: Advanced Number Theory and Problem Solving 12	**Grade Level of Course:** 12
Number of Course Credits: 4	**Number of Hours of Instruction:** 120

Board/Authority Prerequisite(s):

Pre Calculus and Foundations 11 or Math 10/11 Honors

Special Training, Facilities or Equipment Required:

Certified Mathematics Teacher

Course Synopsis: Advanced Number Theory and Problem Solving (ANTPS) provides students with the essential knowledge and skills to proficiently understand and utilize advanced concepts in number theory. These concepts are integral in fields like science, computer engineering, statistics, data analysis, and various branches of mathematics. By completing this course, students will develop a profound comprehension of number theory alongside its diverse mathematical applications.

Rationale: (ANTPS) The introduction of "Advanced Number Theory and Problem Solving" (ANTPS) is driven by the recognition of the foundational role that number theory plays in modern mathematics and its diverse applications across various disciplines. Number theory forms

the backbone of many mathematical concepts, including modular arithmetic for solving remainders, prime factorization, Diophantine Equations, cryptography, permutations, and combinatorics. These concepts are not only fascinating in their theoretical elegance but also find practical use in fields such as computer science, data analysis, cryptography, and other areas of mathematics. By offering ANTPS, we aim to provide students with a solid understanding of these fundamental concepts and their applications, thereby preparing them for the challenges of advanced study and professional pursuits.

Furthermore, the course is designed to cultivate a problem-solving mindset and foster critical thinking skills. Through rigorous exercises and real-world applications, students will develop the ability to approach complex problems systematically and creatively. This skillset is invaluable in a rapidly evolving technological landscape where the ability to analyze data, identify patterns, and devise innovative solutions is highly sought after. By mastering the principles of advanced number theory and problem solving, students will not only gain a deeper appreciation for the beauty of mathematics but also acquire a versatile toolkit that can be applied across a wide range of academic and professional domains.

Goals:

- Students will develop a basic understanding of number theory that can be transferred to a variety of fields with a focus in STEM
- Students will cultivate critical thinking skills by guiding them in the process of inquiry, extracting vital information, exploring novel concepts, and discerning underlying patterns
- Students will facilitate connections among those who share a passion for mathematics, fostering collaboration, idea sharing, and mutual inspiration to enhance their mathematical prowess
- Students will be empowered to comprehend and convey mathematical concepts through logical reasoning, critical analysis, and rigorous justification
- Students will develop enthusiasm for problem-solving and instruct them in the art of creative thinking, enabling them to generate novel ideas and devise unique solutions for intricate problems

Aboriginal Worldviews and Perspectives:

The new course, 'Advanced Number Theory and Problem Solving,' not only explores traditional mathematical concepts but also actively incorporates Indigenous perspectives. As exemplified by the Yuki culture of California, we will delve into the fascinating practice of counting in different bases.

In line with the First People's principles of learning, our course is designed to foster a holistic and inclusive educational environment. We recognize that learning is a journey of self-discovery that connects individuals with their communities. Our curriculum promotes the development of self-awareness while emphasizing the importance of connecting with peers and mentors. Learning is not merely an individual endeavor but a communal one, where knowledge is shared, passed down, and co-created.

Our approach to teaching is reflective and experiential, encouraging students to explore mathematical concepts through inquiry and hands-on problem-solving. The course values the relationship between mathematics and the world around us, emphasizing that learning is relational and connected to real-life experiences. By embracing these principles, we aim to create a learning environment that not only imparts mathematical knowledge but also respects and integrates Indigenous worldviews and perspectives, making the educational experience richer and more inclusive for all students.

BIG IDEAS

Students learn to communicate /explain/reason using mathematics	Problem solving skills in mathematics can be fostered, developed, and trained	Engage in a thinking environment where students can foster critical and creative thinking skills	Students part of a math community can help each other to become better mathematicians	Strong mathematics skills can lead to a successful career in STEM

Learning Standards

Curricular Competencies	Content
Students are expected to do the following: **<u>Reasoning and Modeling:</u>** • Develop thinking strategies to solve puzzles and play games: In our course, students will engage in various mathematical puzzles and games that require creative thinking and problem-solving. • Explore, analyze, and apply mathematical ideas using reason, technology, and other tools: Students will explore advanced number theory concepts using mathematical reasoning, technology, and other analytical tools. • Model with mathematics in situational contexts: We will emphasize real-world applications of number theory, enabling students to apply mathematical models to practical situations. • Think creatively and with curiosity and wonder when exploring problems: Throughout the course, we encourage students to approach mathematical problems with curiosity, creativity, and a sense of wonder. **<u>Understanding and Solving:</u>** • Develop, demonstrate, and apply conceptual understanding of mathematical ideas through experimentation, inquiry, and problem solving: Students will engage in experimentation, inquiry, and problem-solving activities to deepen their conceptual understanding of number theory. • Visualize to explore and illustrate mathematical concepts and relationships: Visualizing mathematical concepts and relationships will be a key part of our teaching approach.	*Students are expected to learn the following:* "Advanced Number Theory and Problem Solving" Topics Modular Arithmetic Prime Numbers and Factorization Diophantine Equations Linear Diophantine Equations Number Theoretic Functions Cryptography and Number Theory Pigeonhole Principle Permutations and Combinations The Multiplication Principle The Addition Principle Pascal's Triangle

• Apply flexible and strategic approaches to solve problems: We will teach students to use flexible and strategic problem-solving techniques. • Solve problems with persistence and a positive disposition: We encourage students to approach problem-solving with persistence and a positive attitude. • Engage in problem-solving experiences connected with place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures: Our course will incorporate problems that relate to local and global perspectives, including those relevant to First Peoples communities, fostering cultural understanding. **<u>Communicating and Representing:</u>** • Explain and justify mathematical ideas and decisions in many ways: Students will learn to communicate mathematical concepts using various methods and justify their decisions. • Represent mathematical ideas in concrete, pictorial, and symbolic forms: We will explore multiple representations of mathematical ideas, including concrete, pictorial, and symbolic forms. • Use mathematical vocabulary and language to contribute to discussions in the classroom: Classroom discussions will encourage the use of mathematical vocabulary and language. • Take risks when offering ideas in classroom discourse: We create a safe learning environment where students are encouraged to take risks and share their mathematical ideas. **<u>Connecting and Reflecting:</u>** • Reflect on mathematical thinking: We will incorporate regular opportunities for students to reflect on their mathematical thinking and problem-solving processes. • Connect mathematical concepts with each other, other areas, and personal interests: The course will help students connect number theory concepts with other areas and personal interests. • Use mistakes as opportunities to advance learning: Mistakes will be viewed as opportunities for growth and learning in the course. • Incorporate First Peoples worldviews, perspectives, knowledge, and practices to make connections with computer science concepts: Our course will incorporate Indigenous perspectives to make meaningful connections with the field of number theory.	Binomial Theorem Combinatorial Identities Counting Subsets Inclusion-Exclusion Principle

Big Ideas – Elaborations

- Algebra Skills for STEM: Developing robust algebra skills that can be applied to a wide range of STEM disciplines.
- Enhanced Technical Background: Expanding students' mathematical understanding to provide a stronger technical foundation.
- Analytical and Investigative Skills: Fostering students' abilities to analyze, investigate, and explore advanced mathematical problems.
- Personal Confidence and Mathematical Identity: Building personal confidence and reinforcing students' interest and identity as mathematicians.
- Mathematics for STEM Careers: Equipping students with strong mathematical abilities that can pave the way for successful careers in STEM fields.

Curricular Competencies – Elaborations

Thinking Strategies and Generalization:

Help students employ reasoning to determine strategies for solving mathematical problems.
Encourage generalization and extension of mathematical ideas to tackle more complex challenges.

Analyzing Mathematical Ideas:

Develop students' ability to examine the structure of mathematical concepts and uncover connections between them.
Reasoning Skills:

Foster both inductive and deductive reasoning, allowing students to make predictions, form generalizations, and draw conclusions based on their mathematical experiences.

Fluent, Flexible, and Strategic Thinking:

Promote fluency in mathematical facts and the ability to use benchmarks.
Encourage students to employ various strategies such as partitioning and number strategies to approximate limits, derivatives, and integrals.
Teach students to choose the most strategic and efficient approach when solving mathematical problems.

Modeling and Problem-Solving:

Equip students with the capacity to apply mathematical concepts and tools to solve problems, whether in real-life or abstract scenarios.
Develop the skill to translate complex, non-mathematical situations into mathematical models that make sense.

Contextual Understanding:

Emphasize the application of mathematical skills in real-life scenarios and open-ended challenges, linking mathematics with everyday life.

Creative and Curious Thinking:

Encourage students to explore mathematical problems with open-mindedness, trying different strategies and fostering creative and innovative mathematical thinking.

Cultivate curiosity and wonder by prompting students to ask questions that lead to deeper understanding and further avenues of investigation.
Inquiry Skills:

Promote structured, guided, and open inquiry in mathematical problem-solving.
Teach students to notice and wonder, determining what's necessary to make sense of and solve problems.

Visualization:

Develop the ability to create and use mental images as a tool for understanding mathematical concepts. Visualization can be supported through dynamic materials, concrete objects, drawings, and diagrams.

Flexible and Strategic Problem Solving:

Guide students in deciding which mathematical tools and strategies to use when confronted with mathematical problems.
Teach effective problem-solving strategies, including methods like guess and check, modeling, simplifying problems, using charts, diagrams, and role-playing.

Problem-Solving Skills:

Train students to interpret situations and identify mathematical problems within them.
Develop their skills in applying mathematics to solve these problems and assessing the solutions within the context.
Encourage the iterative problem-solving process until a satisfactory solution is achieved.

Persistence and Positive Disposition:

Instill in students the value of perseverance and determination in the face of mathematical challenges, fostering a resilient problem-solving mindset.
Explain and Justify Mathematical Reasoning:

Teach students to use mathematical arguments effectively to convince others and anticipate the consequences of their solutions.
Effective Communication:

Encourage students to express their mathematical ideas through oral, written, visual, and technological means, adapting their communication style to suit the context and audience.

Content – Elaborations
Modular Arithmetic: Explore the properties and applications of modular arithmetic, including congruences and modular equations. Prime Numbers and Factorization: Study prime numbers, their properties, and their role in number theory, including prime factorization. Diophantine Equations: Investigate equations where integer solutions are sought, such as the famous Fermat's Last Theorem. Linear Diophantine Equations: Learn how to find integer solutions for linear Diophantine equations, often used in applications like cryptography. Number Theoretic Functions: Explore essential number theoretic functions like Euler's totient function and the Möbius function. Cryptography and Number Theory: Examine how number theory is applied in modern cryptography, including RSA encryption. Pigeonhole Principle: Study this combinatorial principle and apply it to solving mathematical combinatorial principle Pigeonhole Principle: Study this combinatorial principle and apply it to solving various mathematical problems. Permutations and Combinations: Explore the fundamental concepts of permutations and combinations, including their formulas and applications in various situations. The Multiplication Principle: Learn how to count the number of outcomes of a sequence of events by multiplying the number of choices at each step. The Addition Principle: Understand how to count the number of outcomes when the events are mutually exclusive or have some overlap. Pascal's Triangle: Study the properties and applications of Pascal's Triangle in counting problems and probability. Binomial Theorem: Investigate the expansion of binomial expressions and its applications in algebraic expressions. Combinatorial Identities: Discover and apply combinatorial identities, including those related to binomial coefficients and factorials. Counting Subsets: Learn to count the number of subsets of a set and explore power set concepts. Inclusion-Exclusion Principle: Understand how to count the number of elements in the union or intersection of multiple sets while avoiding double-counting.

Instructional Components and Philosophy:

Collaborative Problem-Solving: The course places a strong emphasis on collaborative group activities and explorative learning, allowing students to work together on challenging mathematical problems. This fosters a sense of shared discovery and encourages students to learn from one another.

Direct Instruction: While collaborative learning is a significant part of the course, it also includes direct instruction to provide students with a structured understanding of key mathematical concepts. Direct instruction offers a foundation upon which students can build their problem-solving skills.

Demonstration: In addition to traditional lectures, the course includes practical demonstrations to help students grasp complex mathematical concepts. These demonstrations provide a visual and tangible understanding of abstract ideas.

Peer Teaching: Students are encouraged to take on the role of peer teachers, sharing their insights and knowledge with their classmates. This approach not only reinforces their understanding but also promotes effective communication and teamwork.

Experiential and Explorative Learning: The course follows an experiential learning model, allowing students to learn through hands-on experiences and explorative activities. This approach enables students to connect theory with practical applications and develop a deep understanding of number theory.

Modeling and Simulations: The course integrates mathematical modeling and simulations to provide students with a visual representation of mathematical concepts. These tools help students understand abstract mathematics by demonstrating real-world applications and scenarios.

The philosophy of the course is to create a dynamic and engaging learning environment that combines traditional teaching methods with collaborative, experiential, and exploratory approaches. This multi-faceted instructional strategy aims to cater to diverse learning styles, making the course accessible and effective for all students.

Recommended Assessment Components: Ensure alignment with the Principles of Quality Assessment

Self-Assessment: The course encourages students to reflect on their own learning and progress. Self-assessment helps them take ownership of their education, identify areas for improvement, and set personal goals, fostering a sense of accountability.

Peer Assessment: Peer assessment is an integral part of the course's evaluation process. It not only provides a fresh perspective on one's work but also promotes collaboration and constructive feedback among students. This aligns with the philosophy of learning from one another.

Oral Presentations: Oral presentations are used as a means of assessing students' ability to communicate and explain mathematical concepts. This component emphasizes effective communication, a valuable skill for both learning and career development.

Quizzes: Regular quizzes help gauge students' understanding of the material and their progress. They serve as a formative assessment, offering students opportunities to measure their comprehension and adapt their learning strategies accordingly.

Math Competitions: Engaging in math competitions not only assesses students' problem-solving abilities but also encourages healthy competition and showcases their mathematical talents. This aligns with the philosophy of recognizing and celebrating mathematical achievements.

The philosophy behind the assessment component is to create a comprehensive evaluation system that goes beyond traditional testing. It encourages students to be active participants in their own learning process and places importance on collaboration, effective communication, continuous self-improvement, and recognizing exceptional mathematical achievements. This holistic approach aims to provide a well-rounded assessment that reflects the multifaceted nature of mathematical education.

Learning Resources:

"Elementary Number Theory" by Kenneth H. Rosen - This is a well-regarded textbook that covers the fundamentals of number theory in a clear and accessible manner. It's widely used in high school and college courses.

"An Introduction to the Theory of Numbers" by Ivan Niven, Herbert S. Zuckerman, and Hugh L. Montgomery - This classic text provides a comprehensive introduction to number theory with a focus on problem-solving. It's suitable for motivated high school students.

"Number Theory" by George E. Andrews - Andrews' book offers a friendly and engaging introduction to number theory, emphasizing its connection to modular forms. It's suitable for advanced high school students and can serve as a bridge to more advanced topics.

"Number Theory: Structures, Examples, and Problems" by Titu Andreescu and Dorin Andrica - This book is designed for students preparing for mathematical competitions and offers a wide range of problems, with detailed solutions, to enhance problem-solving skills.

Additional Information:

Our high school is home to a remarkable cohort of mathematically gifted students who continue to astonish us with their passion for the subject. Many of these students, with their dedication and aptitude for mathematics, are not just seeking to excel in their high school studies but are actively preparing for promising careers in math and computer science. Their drive and potential strongly indicate that they are on a trajectory toward significant success in these fields.

It is precisely these talented individuals that underscore the urgency and significance of offering a course in number theory and problem-solving. By introducing them to the beauty and intricacies of advanced number theory, we aim to channel their passion into something deeply inspiring. This course will not only challenge their mathematical abilities but also stimulate their curiosity, promoting creative thinking and problem-solving skills that are indispensable in the world of mathematics and beyond.

The importance of offering a course in number theory goes beyond academic enrichment; it extends to inspiring and nurturing the next generation of mathematical talents. Number theory, with its rich history and its essential role in various scientific and technological advancements, provides a platform for our students to explore the wonders of mathematics.

By delving into this fascinating field, students will not only gain a profound understanding of numbers but also develop analytical and problem-solving skills that are transferable to numerous areas of study and future careers. This course will serve as a wellspring of inspiration, encouraging students to look beyond the surface of mathematical concepts and to engage with the subject on a deeper level. The skills acquired here will not only empower our students academically but also provide them with the tools they need to make meaningful contributions to the world of mathematics, computer science, and beyond. Through this course, we hope to ignite the passion for lifelong learning and creativity that will continue to drive our students toward excellence in their chosen paths.

Board/Authority Authorized (BAA) Courses

Committee of the Whole
February 2024

Kevin Brandt, Director of Instruction

BAA Courses

- Provide an opportunity for educators to explore content beyond the boundaries of the Ministry curriculum.
- Help educators respond to the local needs of schools and their communities and provide choice and flexibility for students.
- BAA courses can be created at the Grades 10-12 levels.

Advanced Number Theory and Problem Solving 12

Course Synopsis

Advanced Number Theory and Problem Solving provides students with the essential knowledge and skills to proficiently understand and utilize advanced concepts in number theory. These concepts are integral in fields such as science, computer engineering, statistics, data analysis, and various branches of mathematics.

By completing this course, students will develop a profound comprehension of number theory alongside its diverse mathematical applications.

Goals

Students will develop a basic understanding of number theory that can be transferred to a variety of fields with a focus in STEM.

Students will cultivate critical thinking skills by guiding them in the process of inquiry, extracting vital information, exploring novel concepts, and discerning underlying patterns.

Students will facilitate connections among those who share a passion for mathematics, fostering collaboration, idea sharing, and mutual inspiration to enhance their mathematical prowess.

Students will be empowered to comprehend and convey mathematical concepts through logical reasoning, critical analysis, and rigorous justification.

Students will develop enthusiasm for problem-solving and instruct them in the art of creative thinking, enabling them to generate novel ideas and devise unique solutions for intricate problems.

Big Ideas

Advanced Number Theory & Problem Solving 12

Students learn to communicate /explain/reason using mathematics

Problem solving skills in mathematics can be fostered, developed, and trained

Engage in a thinking environment where students can foster critical and creative thinking skills

Students part of a math community can help each other to become better mathematicians

Additional BIG IDEA for Advanced Number Theory and Problem Solving

Strong mathematics skills can lead to a successful career in STEM

Thank You

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Committee of the Whole Report

Date: February 12, 2024
To: Board of Education – Public Meeting
From: Jeannette Laursoo and Brandon Curr, Assistant Superintendents
Subject: School Plan Visit Annual Process

Background:

The Burnaby Board of Education's 2019-2024 Strategic Plan contains the following objectives:

"Thriving Students" Through strength-based approaches and innovation we will challenge and support our learners. We celebrate diversity, embrace inclusion and offer multiple learning and career pathways to ensure all students thrive.

"**An Inclusive and Caring Community"** We will ensure that all learners and their families feel a sense of belonging. We will provide accepting, safe, supportive, and inviting school communities.

Information:

Schools participate in an annual school plan process with a focus on improving student achievement. This process is meant to be ongoing, collaborative, and relevant to the local context and student needs. School goals are evidence-based, and strategies are to be meaningful, culturally responsive, and sustainable. As the school plan is a living document, schools monitor progress and adjust goals and strategies as required.

Purpose:

As part of Burnaby's stakeholder engagement in the school plan process, schools participate in a school team visit. The purpose of the school team visit structure is to assist in making the school plan process understood and transparent. It helps schools examine their goals and action plans as they determine if plans are going well or if adjustments are required. It also provides an opportunity for staff to participate in collaborative conversations, share promising practices, and learn from one another.

Structure:

School team visits are typically scheduled in the spring on a rotating three-year schedule. For the 2023-24 school year visits will be held between April and May. Prior to the school team visit, the visiting team will receive a copy of the School Plan for their review. The visiting team may be comprised of a trustee, an administrator from another school, as well as a parent from another school. The visiting team will meet at the school 15 minutes prior to the visit, to share their initial thoughts and prepare any questions they may have for the school team. The visit lead (District Administrator) facilitates the focus of the team visit. Visiting team members are encouraged to

be curious and supportive throughout the conversation to assist the host school team in sharing their school plan. In support of generative dialogue, below are potential guiding questions which visiting team members may choose to utilize during the visit to support the team in sharing their school plan:

- What is going on for your learners that has led you to this goal(s)?
- How is student achievement data guiding your goal(s)?
- What actions have you taking in relation to your goal(s)?
- What professional learning has staff been engaged with in relation to the school plan?
- How are you monitoring and adjusting your school plan?
- How are you engaging your school community (i.e., staff, parents, students) in the school plan?
- Where are you heading next?

The host school team includes the administrator, and may also include teaching staff, students, and members of their parent community.

Time will be taken at the end of the meeting for the visiting team to debrief. The visiting lead will summarize the debrief of notes. Following the school team visit, a draft summary will be shared with the school principal. A final copy will then be forwarded to the District for future planning.

The following schools will participate in a school team visit this school year:

Elementary Schools:

- Brentwood Park
- Douglas Road
- Gilpin
- Inman
- Kitchener
- Lochdale
- Marlborough
- Rosser
- Sperling
- Stoney Creek
- Suncrest
- Taylor Park
- Twelfth Avenue
- Windsor

Secondary Schools:

- Alpha
- Burnaby Mountain

Recommendation:

THAT the Board of Education receive this information.

FIELD EXPERIENCES REPORT
Date: February 12, 2024

All field trips will follow the safety guidelines outlined in Administrative Regulations and Procedures 6.60.01. All Provincial Communicable Disease Guidelines for K-12 settings in place at the time will be followed.

A. FINAL APPROVAL

1. School	**BCSD**
Grades	6-7
Destination	Denman Island, BC
Date of Field Trip	March 6 – 8, 2024
No. of Students	15
No. of Teachers	1
No. of District Support Staff	1
No. of Volunteers	4
FUNDING	
Est. Pupil Cost	$20
Est. TOC Cost	-
Est. School Fund Cost	-
Est. Total Cost	$300
Purpose & Objectives	Students will engage in an alternate outdoor education experience while exploring the forest and shoreline with their peers at Camp Elkhaven.