HOUSE OF REPRESENTATIVES

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Senator Rafferty, Representative Murphy, and esteemed members of the Education & Cultural Affairs Committee:

My name is Representative Mark Babin, and I am honored to represent House District 3, which covers all of Easton and much of Central Aroostook County. I come before you today with a strong and urgent message: we must support LD 361 and provide critical funding to the Francis Malcolm Science Center.

The Science Center is more than just a building—it is a cherished cornerstone of science education for generations of Aroostook County children. Wherever I go—whether it's the grocery store, the dentist office, or even church—the moment I mention the Francis Malcolm Science Center, people light up. "I've been there," they say. "My kids have been there." "My grandkids learned about space and wildlife there." The stories and memories are countless, and they reflect the Center's deep impact on our community. This unique facility offers hands-on, indoor and outdoor educational experiences that simply cannot be replicated in the classroom. From stargazing in the planetarium to learning about ecosystems and wildlife habitats right outside its doors, the Science Center sparks curiosity and a love of learning in every child who visits.

Despite its incredible value, the Center has faced enormous challenges. Like many organizations, it was hit hard by the COVID-19 pandemic—losing staff, a major donor, and much-needed revenue. Yet, thanks to a determined board and a team of passionate educators, including a retired Maine Teacher of the Year, they pushed forward. In just the past two years, they delivered over 210 science programs to more than 2,500 students from 12 public schools and 13 community organizations—all while operating with a skeleton crew of volunteers.

But they cannot keep this up alone. The demand for their programs continues to grow, and the small group of volunteers is stretched far too thin. Without sustainable funding to hire staff and expand capacity, we risk losing this vital resource—not just for today's students, but for future generations.

LD 361 offers a lifeline. With your support, we can ensure that the Francis Malcolm Science Center not only survives, but thrives—continuing to inspire, educate, and enrich the lives of children throughout Aroostook County and beyond. This is our chance to invest directly in the future of Maine students. I urge the committee to help us give them the opportunity to explore, discover, and dream—right here in our own backyard.

Thank you for your time, your service, and your consideration.

Sincerely,

Mark M Babin

Mark M. Babin
State Representative

House District 3

FRANCIS MALCOLM SCIENCE CENTER PROJECTED 2024 - 2026 BUDGET

March 1, 2025

	2024 Completed	Proposed 2025	Proposed 2026
EXPENSE			
Salaries	$ 0	$55,000 (4)	$85,000
Maintenance and utilities	20,000	20,000	22,000
Emergency repairs	29,000 (2)	25,000 (5)	0
Insurance and fees	15,000	15,000	18,000
Improvements for Off-Campus Student Experience		10,000	8,000
Miscellaneous	20,000	25,000	27,000
Total Expenses	84,000	150,000	160,000
INCOME (1)	61,000	45,000	65,000
DEFICIT	23,000 (3)	105,000 Request	95,000 request

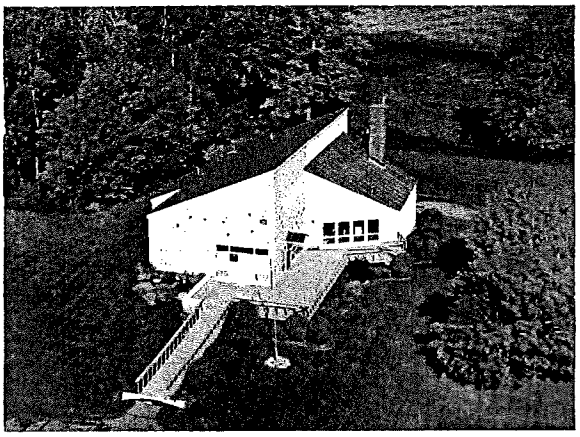
1. From donations, annual capital fund drive, event fees, school contributions
2. Chimney Failure
3. From available balance on hand of $75,000
4. Part time Educators assisted by volunteers
5. Siding failure and handicap ramp and deck repair

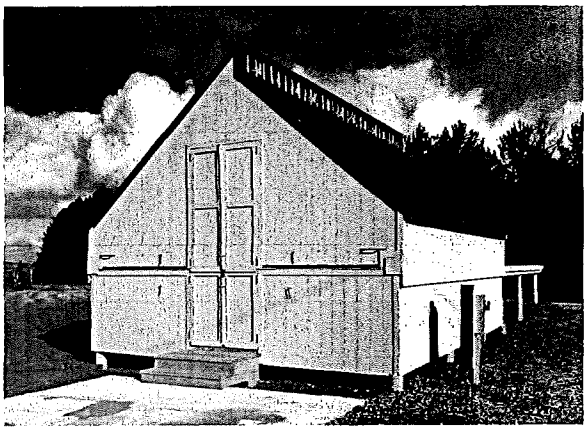
A five member volunteer team of educators led by Elaine Hendrickson, Retired Maine Education Teacher of the year, has led the Center to a full recovery from the Covid collapse but this is not sustainable.

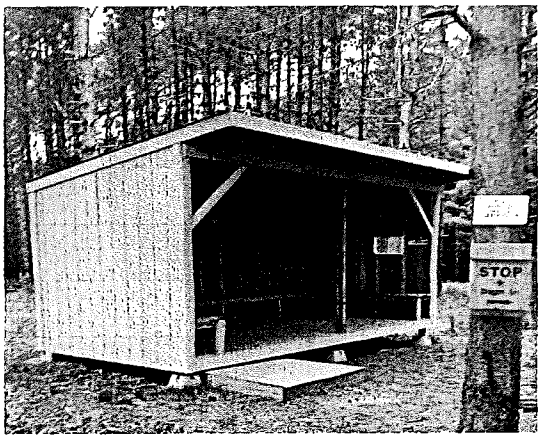
The addition of contract part time Education Leaders supported by volunteers is essential for us to continue to operate and serve 3000 or more students a year by providing science based off-campus indoor and outdoor educational opportunities and serve other groups and the public.

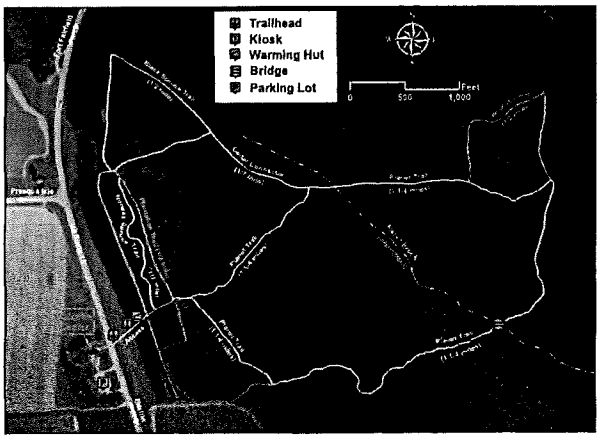
The full dome planetarium, classroom and conference room, 180 acre woodland with more than three miles of trails including a scientific bog trail, the roll-off roof observatory, and the more than 2500 science displays allow our Educators to create a custom program to complement any teacher's curriculum.

Francis Malcolm Science Center
Strategic Business Plan
2024 - 2025
Executive Summary March 2025









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Strategic Business Plan 2024 – 2025

This Business Plan is prepared to guide the Board of Directors, Science Center, and volunteers during a critical and dynamic time for the Center.

INTRODUCTION

The Francis Malcolm Science Center was established in Easton, Maine in October 1983 to provide a special science-based educational, enriching, and stimulating experience for every student, resident and visitor in Aroostook County, Maine.

The mission of the Science Center provides a unique environment for learning adventures in life and environmental science including outdoor education and astronomy and space science.

The Center has thrived on student and public attendance for nearly 42 years. More than 150,000 visitors have delighted in the unique experience of a time under the Planetarium dome, in the classrooms and exhibit areas, and on the trails.

The COVID pandemic mandated that the Center close for in-facility contact and all staff positions were eliminated due to lack of funding.

THE CHALLENGE AND PROGRESS

When the area recovered from Covid, a five-member volunteer team of educators, led by three members of the Board of Directors, guided the Center to a full recovery from the Covid collapse. This team, during the 2023 to 2024 school year, developed, marketed and conducted more than 210 programs to more than 2500 students from 12 public schools and 13 alternative education and community groups, provided professional education opportunities to 87 individuals, and hosted over 500 spectators during the April 9, 2024 Total Solar Eclipse.

Our Board of Directors have dedicated hundreds of hours to numerous initiatives during this recovery period including:

- Performing facility improvement and maintenance,
- Meeting with school superintendents in Aroostook County, informing them of the recovery and seeking financial support within their capabilities.
- Conducting special fund-raising events to support emergency repairs on our building,
- Seeking grants for funding new initiatives.
- Managing general donation campaigns.

Our immediate need is to obtain State, local and public financial support to bridge the funding gap caused by the restriction of in-person participation in the Center by school groups and the public while continuing to provide innovative hands-on programs to schools and other groups. We will continue to build on the outdoor programming that has sustained our science-based outreach during this difficult time. In addition, we must continue to update the Science Center's technology and improve the aging infrastructure, implement flexible operating schedules, and adapt programs to meet changing needs and opportunities presented by educators and community leaders.

The observatory, greatly enhanced trail system, and improved technology enables us to expand our outreach to provide opportunities for all ages to learn about our natural environment, its protection, and relationship to the Universe. Every effort will be made to build public awareness of the expanded campus and opportunities at the Center.

The popular programming and high-volume visits throughout the years has demonstrated that the Science Center's discovery approach to learning satisfies scientific curiosity and delivers complementary educational experiences for all ages.

FACILITES AND RESOURCES

The updated campus of the Center is multi-faceted. It includes the historic Center with the planetarium theater, the adjacent roll-off roof observatory constructed in 2021, a Boston University Research building, and the 240-acre woodlot with more than 5 miles of trails that include the newly developed Black Sprue Bog and Vernal Pool Trails.

The Center features the only planetarium facility serving northern Maine. The planetarium now offers a wide selection of programs detailing the many topics of astronomical and earth science to the student, academic community, and the public. The 35 unidirectional seats offer a unique 3-dimensional view under the dome. A large flat screen monitor adds versatility. An improved planetarium with up-to-date technology would enrich and broaden the experience.

The indoor Nature Classroom provides visitors with hours of enriching educational experiences with numerous plants, mineral and animal exhibits. Current innovative programs that have been developed and delivered include forest ecosystems, animal adaptations to their habitat and winter, map reading, the water cycle, ocean zones, the eclipse, solar system, rockets, and phases of the moon and trees. Programs are adapted to grade level and teacher needs. Increased staffing can create many new programs. A separate combined classroom and conference room provides opportunities for special classes, demonstrations, meetings, and professional development workshops.

The roll-off-roof observatory was constructed under the leadership of a student at the Maine School of Science and Mathematics in Limestone during the summer of 2021. It was his project to enable him to achieve the rank of Eagle Scout. When fully functional, it will allow the public to view Aroostook's unique dark skies with the Science Center's 20-inch Dobsonian telescope (Goliath). The Scout received outstanding donations of time and materials from local businesses and individuals in support of his project. More than twenty individuals contributed more than 1120 hours to help him with the planning and construction.

SERVICE SCOPE AND OPPORTUNITIES

Annual attendance in prior years approached 4500 visitors. In 2023 through 2024 we reached more than 2500 during our recovery with volunteer educators. With the return to having educators on staff, we could serve the increasing demand.

The potential served population in Aroostook County is:

Total population	70,000
Students grade 1-4	3700
Students grade 5-8	3300
Students in High School	3000

FMSC offers a unique experience to visitors to the area. The Northern Maine Development Commission reports that more than 1.4 million people visited Aroostook County in each of the last few years. The challenge is to develop awareness and attract these visitors as they make plans to visit the area.

OBJECTIVES

The following objectives utilize the Science Center's unique facilities and outstanding resources to provide learning adventures.

1. Deliver programs to public, private, home, pre-school and school students of all ages that support and strengthen teachers' curriculum goals in science.

2. Provide unique education and recreation experiences for individuals and groups of all ages drawn from the school population and the Aroostook County community at large.

3. Provide school children and beyond access to innovative Nature Classroom field activities pertaining to widespread animal and plant life investigations to expand their educational experience.

4. Raise consciousness and enhance science-based stewardship of individuals, families, and communities.

5. Provide area educators with professional development in STEAM curriculum, as well as other areas of concern educators are facing.

GOALS

These Goals focus on efforts to:

- overcome the challenges of recovering from the impact of COVID19,
- seek partnerships to overcome funding losses,
- build on the opportunities created by our expanded trails and new observatory,
- continue to enhance the Center's infrastructure including the aging planetarium,
- increase public awareness expanded educational opportunities for all ages at the center,

- respond to the call for more flexible schedules, and
- increase funding to support basic staff as program delivery recovers.

Goal 1: Develop and execute innovative ways to deliver STEAM (science, technology, engineering, art, and mathematics) based on-hands educational support to County classrooms and the public.

Goal 2: Seek State and local financial support, and grants to bridge the funding gap.

Goal 3: Service and expand the existing outdoor classroom and trail network for community use in all seasons.

Goal 4: Maintain, enhance and update the Science Center's infrastructure and technology.

Goal 5: Develop and implement a marketing and management plan for the observatory.

Goal 6: Expand the volunteer support team.

Goal 7: Identify and arrange sponsored events.

BOARD OF DIRECTORS

James Orser (President): Cumberland, Maine - currently an Executive Vice President at Gallagher Re, a global company. Retired as a Senior Vice President at UNUM after a 36-year career. Jim brings to the Science Center many years of management and organizational abilities to enhance the venue and offerings at FMSC, Inc.

Philip Christensen (Vice-President): Fort Fairfield, Maine – Retired from a 35-year engineering and management career with the US Department of Agriculture Natural Resource Conservation Service. Philip is eager to assist in enhancing the Center's organizational structure and management.

Jill Shaw (Treasurer): Fort Fairfield, Maine – Jill is the great niece of Francis Malcolm and has served as treasurer of the Francis Malcolm Institute for several years. She and her husband owned a large potato farming operation in Fort Fairfield, Maine.

Roger Libby: Mars Hill, Maine - Roger retired from a 25-year career as a chemical engineer at Eastman Kodak Co. Roger has a personal observatory at his home, was the motivation for the Boy Scout Eagle Project that made the Center's observatory possible, and provides leadership for its technology and management.

Elaine Hendrickson: Presque Isle, Maine - Taught middle level education for 35 years in Aroostook County before retiring in 2012. In 2001, she was named Maine Teacher of the Year. Elaine provides leadership to the current Science Center Volunteer Education

team. She and her husband also manage the Center's trail system. She is the reason the Center is currently successful in meeting our mission.

Richard Langley: Fort Fairfield, Maine – Richard was born in Easton, Maine and attended schools there. Richard practiced law in Fort Fairfield, retiring in 2013. He is eager to assist in securing sustainable funding for the Center and aided in the establishment of the Center as a Maine corporation and in resolving the Center's property boundary issues.

Rick Shepherd: Fort Fairfield, Maine - Rick is a graduate of Fort Fairfield High School and the University of Maine in Presque Isle. Rick had a 32-year career in information technology including ten years at Potato Service Inc. and twenty-two years at Maine Potato Growers Inc. Upon retirement Rick established Western Hill Forge Farrier Services, where he worked until his retirement in 2018. Rick is a key member of the Center's infrastructure maintenance team.

John Strid: Fort Fairfield, Maine – John served 4 years in the US Army overseas and graduated from vocational school in Germany. John is accomplished in private home and commercial building construction. John was the project manager in support of the Boy Scout Observatory project.

Suzanne Beaudet: Suzanne Beaudet - Mapleton, Maine. Sue taught at the high school and University level for 44 years retiring from UMPI in 2015. She is a key member of the Volunteer Education Team and enjoys supporting the programs for youth learning-in-the-outdoors.

James Stepp: Jim Stepp: Westfield, Maine - Jim has worked in various educational settings for over 30 years with experience working as an instructor and administrator at two universities, a high school teacher, and currently an academic instructor at Loring Job Corps. Jim provides leadership in the planetarium included writing scripts, producing shows, and performing shows.

Lawrence Berz, Limestone, Maine –Larry served a 31-year teaching career at the Francis Malcolm Science Center as planetarium director from 1988 to 2022. He is currently a member of the faculty of the Maine School of Science and Mathematics (MSSM). Larry is well known as a national and regional astronomy personality and enthusiastically supports all Center programs.

Francis Malcolm Science Center
2024-2025 Educational Program Offerings

Welcome to the Francis Malcolm Science Center! Bring your class, senior college, alternative educational groups, homeschool students, scouts, clubs, and afterschool programs to the Science Center. We offer a variety of outdoor programs designed to provide your groups with an opportunity to get outside to enjoy nature, as well learn more about the natural world around us. Learn more about space and planet Earth's role in our universe by watching a full dome presentation that augments your curriculum and do an activity designed as a follow-up to reinforce what is presented. You have three options from which to choose: Outdoor Hike, Full Dome Show, or a combination of both. Come for a morning or afternoon session, or come for the entire day. This year we are offering multi-day in-depth programs centered around a single topic.

The Francis Malcolm Science Center's Educational Philosophy is as follows:

- To work with educators to develop programming to fit their curriculum needs.
- To create programs that are not just "fun," but educational as well that can be used before, during, or after units of study teachers are pursuing in their classrooms.
- To create within our programs activities that are hands-on and involve the senses of touch, smell, sight, and sound.
- To offer professional development in the STEAM (science, technology, engineering, art, and math) subjects, as well as topics in outdoor education and enhancing pedagogy.
- To gather feedback from educators and students through Exit Tickets and email communications to improve our programming.

Programs

Our programs are designed to be adapted to each grade level attending as well as to the season of the hike. All programs include a Scavenger Hunt or similar activity for students to complete while at the Science Center. Students and teachers will be asked to complete Exit Tickets upon returning to school to let us know what students have learned or found interesting about their experience. Our programs typically run for 1 ½ to 2 hours.

*Programs developed or enhanced during the 2023-2024 school year.
**New programs for the 2024-2025 school year.

Outdoor Programs

Take a Hike: Come hike with us! Enjoy and learn about the natural environment, as well as get some exercise, too! While hiking one of our trails, we will talk about Leave No Trace Ethics. Using the senses of smell, touch, sight, and sound, we will identify cool things in nature while completing a Scavenger Hunt and maybe create a piece of nature art.

Discovering a Forest Ecosystem: Our Tree Plantation provides a unique ecosystem for the plants and animals who live here. The first part of the program will be to watch the full dome video, *Ecosystem*. The second will to be to review what makes up a forest ecosystem. The final part will be to hike through the forest to determine what elements are there to provide a suitable habitat for our birds and animals to survive. (It is helpful if the students have some previous knowledge of what an ecosystem and food chains are.) This program may take longer than two hours to encompass all the activities listed above.

Birds! Birds! Birds!: How have birds adapted to survive in our forest ecosystem? While in the Science Center, students will learn about bird adaptations. After making bird feeders, the students will hike in and around the outdoor classroom to leave their feeders and to look more closely at the forest habitat and determine whether or not it has the necessary elements to support bird life.

Weather Forecasting: Have you ever asked, "What is the weather for today?" Let's try to figure out our own weather forecast by examining weather equipment used by meteorologists. From there we will go on one of our trails to collect weather data that include: temperature, barometric pressure, rain or snow amounts, wind, and cloud cover. Upon returning to Center, we will write our own FMSC Weather Report. (Weather scenarios can be given to older students to decide what would be the safest course of action to take in the conditions described.)

***Follow Drop through the Water Cycle:** Follow Drop, the water droplet as she maneuvers through the water cycle in the book, Drop: An Adventure Through the Water Cycle by Emily Kate Moon. All life depends upon drops of water. Plant a bean seed in a toilet paper tube. Take it back to school and watch it grow! Or for older students, make a water gauge out of recycled water bottles. Put it outside and track the amount of rain that falls during a week or month. What did you learn? Chart the data. (This can be paired with Weather Forecasting if you bring two classes.)

Follow the Signs: Everyday, we follow signs designed to give us information. We can use signs that animals and birds leave, as well to determine what lives in our Tree Plantation. After a brief introduction in the Science Center, let's hike the trail looking for some of these signs. We'll look for animal tracks, scat, feathers, hair, or other signs of animals. We'll also listen and watch for actual sightings. Using all this information, we will determine what animals or birds live here. (Recommended for the winter when the signs are more visible in the snow.)

****Tree of Life:** Trees provide shelter and food for animals, birds, other plants, and even people. Why are they so important? What role do they play in the world? After an introduction to the topic, come with us to explore these roles in our living lab on the Science Center trails.

Learn to Read a Map: Learning to read a map is very important in becoming an avid outdoor adventurer. Using maps of the area, learn the symbols on maps and how to read them. Test your new-found skills by using a map of the Science Center to discover hidden surprises.

Trees, Trees, Trees, and more Trees: Trees play a vital role in helping prevent climate change. Join FMSC's volunteer Maine State Forester, Randy Lagasse, to learn to identify the trees found at the

Science Center and the role they play. The first part of the program will include a slide show presentation to help identify the trees. With tree identification charts/books in hand and Forester Randy's help, the students will identify trees found on a hike while completing an inventory of them. Allow 2 hours for this program.

Other Programs at the Science Center

***Going on a Critter Hunt:** Learn more about the animals and birds that can be found in Aroostook County. Listen to the book, We're Going on a Bear Hunt by Michael Rosen and Helen Oxenbury. Using clues, we will go on our own critter hunt discovering animal pelts, scat, prints, and even a few "stuffed" critters. Read about each animal and identify the animals that we find along the way!

****Donn Fendler: Lost on a Mountain in Maine:** After reading the book or watching the movie, Lost on a Mountain in Maine by *Donn Fendler as told to Joseph Egen with your class, come to the Science* Center for a day that includes four short mini-lessons related the book and Donn's ordeal. Mini-session 1: Learn to pack a backpack with items Donn could have used. Mini-lesson 2: Learn to read a map and find items that Donn needed on his trip to help him survive hidden around the grounds of FMSC. Mini-lesson 3: What was Pamola and who was Roy Dudley? Weave your own Pamola tale while sitting around a "campfire." Mini-lesson 4: Learn about the telephone system that helped to let the world know Donn had been found. Make a paper-cup phone and more. (This requires a 4 hour visit with a lunch break.)

****Dive into the Depths:** We do not live near the ocean, but come take a "walk on the beach" with us! Begin your journey by watching the full dome video, *Into the Deep.* Jump through the waves on our imaginary beach and then explore the various ocean zones learning what creatures live there. Discover the remains of sea creatures on our beach. What are they and in what ocean zone do they live? Share your findings! (This program takes 2 to 2 1/2 hours.)

Multiple Day Programs

We would like to provide your students with an opportunity to be become community scientists by gathering data on seasonal change or phenology and exploring the fragile environment of a Vernal Pool. In order to do this, we will need three-days to present 1 ½ to 2-hour programs. The first day will be an introduction to the topic, the protocol and equipment required and gathering preliminary data, the second day will include a review and data collection, and the final day a discussion and posting the data collected.

***Phenology Challenge**: Become a citizen scientist by observing the same tree found on the grounds of FMSC three times, in the fall, winter, and spring observing signs of change. What happens to the plants, trees, birds, and animals as the temperatures drop and then rise again? Students will keep a nature journal in which to record their observations. On the last visit, we will discuss our finds and draw conclusions. Older students may record the data in Nature's Notebook through the USA National Phenology Network or NASA's Globe Observer.

**Explore Vernal Pools: In early May, let's explore a Vernal Pool found in Easton. What unique creatures can be found here? Report your data to the University of Maine scientists who are watching how climate change is affecting these fragile creatures. On the first day, learn what a Vernal Pool is, what creatures live there, and what process you will be using to gather information. On the second day, explore the Vernal Pool using equipment provided (even the boots if you don't have them.) On the third day, using computers/tablets at your school, record your data to be used by UM scientists.

Full Dome Programs

The Francis Malcolm Science Center is the only planetarium north of Old Town. We are pleased to present full dome shows to your students that are related to topics you are studying. For a listing of the shows we own, you can see them on our website, Francis Malcolm Science Center, or request a list from us. These you can watch at no charge. We are also able to rent them through Full Dome on Demand, https://www.fulldomeondemand/shows_ato.html. If the rental fee is more than $30, we ask that you help us defray the cost.

If you choose to view a Full Dome show only, we can provide a follow-up activity to enhance and reinforce the program. For example, *Rusty Rocket's Last Blast* is our most frequently watched Full Dome show. Here are a few of the activities we have developed to accompany it:

Bingo: Place beans on the planets or other bodies in the solar system as they are described. Win a prize!

Who Am I?: Rocketing from one planet to the next, pairs of students identify the planet by reading a clue associated with where they land.

Planetary Face Off: Earn points for your team by answering a question about the solar system.

**Finding the Alien: Your small group will take on a mission to locate an alien who has somehow ended up in our solar system. (This is done outside.)

You can also pair a Full Dome Show with a hike or one of our other programs. This requires a morning session, lunch, and afternoon session.

Things to know before you come:

1. Please contact us to set up a program at least two weeks before you wish to come to allow us to adapt the program to fit your needs.
2. Use the email addresses below to set up a program. Please do not call the Science Center, there is no one here full time to answer the telephone or take messages.
3. Please do not bring fewer than 10 students to a program.
4. If your visit extends through lunch, we ask that you bring garbage bags to take the trash back to school. We no longer have a garbage service.
5. You will be asked to photocopy any Scavenger Hunt or other interactive activity designed for the visit. We only have an old black and white photocopier.
6. We ask that you and your students provide us feedback by completing Exit Tickets upon your return to school. These help us to continually improve our programming.

7. **Dressing for the Season**: It is important that your students dress appropriately for the season of your visit. The Plantation, Vernal Pool, or Norway Spruce Trails where we hike are in the shade making it much cooler. Depending upon the time of your visit, more details will be sent on suggested clothing.
8. We ask that you check with your students before you come to see who can have their photos taken for our Facebook page.
9. We do accept donations to support our programming. Currently the Francis Malcolm Science Center has limited funds upon which it is operating. We are a 501(c)3 organization run by all volunteers and dependent upon donations and grants.

Program Volunteers

Programs are being designed and led by volunteers, Elaine Hendrickson, Suzanne Beaudet, Mary Jo Badger, Ellen Helstrom, and Roger Libby. Elaine is a retired middle school educator, 2001 Maine Teacher of the Year, and an outdoor enthusiast. Suzanne is a retired Professor of Exercise Science from UMPI who helped to bring the outdoor education lab to the campus, and has been a camp counselor and an outdoor educator for the Girl Scouts for 60+ years. Mary Jo Badger, our projectionist in the Planetarium, is a retired middle school Special Education Teacher, Adult Basic Education Coordinator and avid crafter. Ellen Helstrom, a retired middle school educator, loves meeting teachers who value the benefits of outdoor education and hanging out with excited students who come to FMSC. Roger Libby, a retired Chemical Engineer who worked for Kodak and avid astronomer assists us with Full Dome presentations.

Program fees will be posted at a later date.

Contact information: info@francismalcolmsciencecenter.com or Volunteer Program Director: elaine.hendrickson@gmail.com.