

MIAMIBEACH

OFFICE OF THE CITY MANAGER
NO. LTC # 174-2023

LETTER TO COMMISSION

To: Mayor Dan Gelber and Members of the City Commission

From: Alina T. Hudak, City Manager

Date: April 18, 2023

Subject: City Funded Afterschool Enrichment 2022-23 School Year – Miami Beach Fienberg Fisher K-8 and Biscayne Beach Elementary

The purpose of this Letter to Commission is to update you on the status of the City's free Afterschool Enrichment Program for 2022-2023 at Miami Beach Fienberg Fisher K-8 and Biscayne Beach Elementary. Fall classes were held October 3, 2022- December 15, 2022, with 71 program participants and Spring classes were held January 30, 2023 - April 13, 2023 with 81 program participants. The total number of program participants at both schools was 152 youth.

For ease of access, registration was fully automated and class offerings were held on site. Youth may enroll online beginning in September 2023 via <http://register.miamibeachparks.com/> for our school site afterschool enrichment programs for the 2023-24 school year at Miami Beach Fienberg Fisher K-8 and Biscayne Beach Elementary.

Afterschool enrichment classes expected to be offered at Miami Beach Fienberg-Fisher K-8 and Biscayne Beach Elementary include the following options for the 2023-24 school year:

Playing with Physics: Accelerate an interest in physical sciences with thrilling lessons exploring gravity, magnetism, forces and energy. Students will start off with mechanic fundamentals in simple machines and then increase momentum by investigating the laws of motion and electricity before venturing into the application of physics to cosmology and astronomy.

Activities include:

- Assembling and testing a projectile launcher
- Improving rollercoaster designs to understand motion
- Analyzing the properties of light through diffraction
- Simulating the gravitational pull of a blackhole
- Generating the flow of electricity by connecting circuits

Science Exploration: Future scientists come join in an exploration of science topics including DNA detectives, rocket racers, code breaking, mapping microplastics. This interactive science exploration program engages students in conversations about careers in STEM, their connection to the natural world and practical science concepts needed for a sustainable future.

Activities include:

- DNA Detectives: Explore different methods to extract and analyze DNA. Identify unknown species using the biological clues left behind. Then, make conservation management decisions based on the identity of the revealed species and the role it plays within ecosystems and trophic webs.
- Rocket Racers: Engineer air-propelled rockets using key tenets of physics such as lift, drag, thrust and gravity. Launch each model to see which goes the farthest/highest. Then as a team discuss individual successes and areas of opportunity.
- Tech to Protect: Join research expeditions and field work with some of FIU's most adventurous scientists. Explore different types of marine animal camera rigs, then create your own, showcasing how scientists have to think on their feet - or fins.
- Planet Plankton: Examine plankton species and their complex anatomies under high-powered microscopes. Build plankton models based on real-world adaptations and test their effectiveness in water.
- Code Breakers: Travel back in time to learn about various ciphers composed of alphanumeric digits and cultural symbols. Learn to encode your own mysterious message to see if its intended recipients can decode its clandestine meaning.
- Mapping Microplastics: Students will use scientific tools and follow the engineering & design process to look for microplastics within water samples taken from Biscayne Bay. Students will then analyze their samples and contribute to a project that is seeking to determine the amount and kinds of microplastics in our water.
- Biscayne Bay Journey: Coastal habitats provide a wide range of valuable services and are important indicators of ecological health—from land to sea. Journey through Biscayne Bay where vast oceans meet the Florida peninsula to create one of the most unique ecosystems on Earth. Using select activities from our Mission Inspire: Expedition Biscayne Bay curriculum, students and teachers will join an FIU facilitator in completing a lesson along with trained staff.
- Journal Earth: There are so many stories to be told – where does one begin? Learn how to blend technical and creative writing methods when building a narrative. Then, choose a writing genre to express ideas and emotions by crafting relatable tales. Areas include fiction and non-fiction as well as prose and poetry.
- Aquarius Journey: Participants explore the ocean and its inhabitants along with how to conserve all the resources they provide. Using select activities from our Mission Inspire: Expedition Ocean curriculum, students and teachers will join an FIU facilitator in completing a lesson along with trained staff.
- Animal Encounter: Interact with marine invertebrates such as sea stars, urchins, snails, crabs and more* to gain a better understanding of the critical roles they play in their ecosystems. Learn about taxonomy by identifying and classifying these marine species by their shared characteristics.

We will continue to support our vision of being a prosperous city with a special flavor of arts, culture, education, and business with management objectives of being known for educational excellence (K-12). If you have any questions, please feel free to contact Dr. Leslie Rosenfeld, Chief Education Officer.

JG/LDR

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