Space Foundation Discovery Center Field Trip Scholarships presented by Raytheon

Thanks to a generous gift from the Raytheon Company, the Space Foundation is offering **Discover Scholarships (ScholarTrips)** to select schools to experience a field trip to the Space Foundation Discovery Center, including the extraordinary Science On a Sphere® (SOS).

The Space Foundation Discovery Center, located in Colorado Springs, is the region's first and only space, science and technology attraction. A full complement of standards-based courses are offered for PreK-12 students which utilize the Discovery Center's El Pomar Space Gallery, Battelle Underwater Drone Laboratory, Lockheed Martin Space Education Center featuring the AGI Space Missions Simulation and Mars Robotics Laboratories, and the Northrop Grumman Science Center featuring Science On a Sphere® (SOS).

Each Discovery Center Field Trip course is calibrated for a specific grade-level standard but may also be appropriate for a range of grades as noted in the eligibility requirements below.

Who is eligible for the Raytheon Discover ScholarTrips:

Grades K -12 from schools in the following Colorado school districts are welcome to apply:

- Widefield School District #3
- Fountain/Fort Carson School District #8
- Harrison School District #2.

What the ScholarTrip provides:

A "Discovery Center Field Trip Voyage #2 - Consist of a Science on a Sphere® presentation followed by a hands-on activity or demonstration, plus a tour of the El Pomar Space Gallery.

Each scholarship includes:

- Field Trip admission fee of $10 per student for a maximum of 40 students.
- One free Teacher/chaperone for every 15 students; additional adults/chaperones are $5.00 each. *Schools should keep adults to a minimum while adhering to their district policy*.
- A subsidy for bus costs up to **$100**. Following the field trip, each school will need to provide an invoice or recap report from the school's transportation department to the Space Foundation Discovery Center. **Transportation invoices must be submitted by February 1, 2020 or awarded subsidy will be forfeited.**

How to apply:

Schools/Educators interested in applying for this scholarship opportunity must complete and submit the **Space Foundation Discovery Center Raytheon ScholarTrip Application** form along with a brief essay describing how such an opportunity will benefit the educators' students.

Apply online at: www.discoverspace.org/education/scholarships

ScholarTrips are available to all grades K -12 to experience a **"Discovery Center Voyage #2** Field Trip;" however, each scholarship class must consist of students from the same grade level as courses are tailored to be grade appropriate. Educators may apply for more than one scholarship for different classes/grade levels that they work with.

Each application must be approved by either the school principal and/or a district administrator. Educators agree to provide a pre/post field trip evaluation.

Schools/Educators/Students should be made aware that this generous opportunity has been made possible by Raytheon Company. Although not required, at the conclusion of the program we encourage each teacher to have their class write notes of thanks that the Space Foundation will forward on to Raytheon Company.

Scholarship Timeline:

- Application opens: **Week of August 26, 2019**
- Application deadline: **5:00pm, Friday, September 20, 2019**
- Decision Notification: **Week of September 23, 2019**
- Awarded Field Trips conducted: **September 30 – December 13, 2019**

Please email all scholarship questions to SFDCReservations@SpaceFoundation.org

Raytheon Science Center ScholarTrip-
Field Trip Descriptions

Reasons for the Seasons
Students will learn about Earth's tilt and its orbit around the sun, and how these cause the seasons year after year.

Grade Levels: *K - Grade 2*
Class Content: *Earth Science, Space Science*

Parent Offspring
Students will explore characteristics of living organisms. Students will learn that offspring have characteristics that are similar to, but not exactly like their parents' characteristics.

Grade Levels: *K - Grade 3*
Class Content: *Life Science*

Moon Phases
The relative positions and motions of Earth, the Moon, and the Sun can be used to explain observable effects such as seasons, eclipses, and moon phases. Students will learn about these motions to further understand the phases of the moon.

Grade Levels: *K - Grade 2, Grade 3-5*
Class Content: *Earth Science, Space Science*

Exoplanet Art
Students will learn about exoplanets and how they are detected, as well as the Kepler telescope and its success in seeking out habitable worlds in our galaxy. Students will explore this topic further through art.

Grade Levels: *K - Grade 2, Grade 3 - 5, Grade 6*
Class Content: *Earth Science, Space Science, Arts and Humanities*

Charting Mars
While it is not yet possible to visit Mars, this Mars based-field trip affords an opportunity to move around on the largest mapped surface of the red planet students may ever see. Exploring important concepts like latitude, longitude, elevation, and compass skills students will walk all over our 25' x 25' map to tangibly practice orienteering skills.

Grade Levels: *K - Grade 2, Grade 3 - 5, Grade 6 - 8, Grade 9 – 12*
Class Content: *Earth Science, Space Science*

Rocketry
Students will learn about rocket design and the past, present, and future of rocket launches. Students will assemble rockets while thinking about how forces like direction and magnitude affect the motion of an object.

Grade Levels: *K - Grade 2, Grade 3 - 5, Grade 6 - 8, Grade 9 - 12*
Class Content: *Physical Science, Space Science*

SPACE FOUNDATION

Raytheon

Tour of the Solar System

Students will learn about the Solar System and Earth's place within it, including the latest information on discoveries and the future of exploration.

Grade Levels: *K - Grade 2, Grade 3 - 5, Grade 6 - 8, Grade 9 – 12*
Class Content: *Space Science*

Geology and the Rock Cycle

Earth's surface changes constantly through a variety of processes and forces. Students will learn about the rock cycle and how these processes and forces change rocks over time.

Grade Levels: *Grade 1-2, Grade 3 – 5, Grade 6*
Class Content: *Earth Science*

Electric Earth

Students will learn about Earth's energy and its uses. Students will understand how electricity moves through wires to create circuits.

Grade Levels: *Grade 3- 5, Grade 6 – 8*
Class Content: *Earth Science*

Engineering Design: Aerospace

Students will use engineering principles to design and construct an aerospace vehicle in order to complete a specific challenge.

Grade Levels: *Grade 3 - 5, Grade 6 - 8, Grade 9 - 12*
Class Content: *Space Science*

Plate Tectonics

Students will explore how major geologic events such as earthquakes, volcanic eruptions, mid-ocean ridges, and mountain formations are associated with plate boundaries and how these attribute to plate motions.

Grade Levels: *Grade 5, Grade 6 - 8*
Class Content: *Earth Science*

Human Body in Space

The human body is composed of atoms, molecules, cells, tissues, organs, and organ systems that have specific functions and interactions. Students will learn how the human body adapts to long-term space travel and will participate in activities which simulate how the body changes in microgravity.

Grade Levels: *Grade 5, Grade 6 - 8, Grade 9 – 12*
Class Content*: Life Science*

Weather and GPM (Global Precipitation Measurement)

Weather is a result of complex interactions of Earth's atmosphere, land and water, that are driven by energy from the sun, and can be predicted and described through complex models. Students will be given a design challenge of a weather instrument.

Grade Levels: *Grade 5, Grade 6 - 8, Grade 9 - 12*
Class Content: *Earth Science, Physical Science, Space Science*

Squid Dissection

Students will dissect a squid to better understand that environmental conditions affect the survival of individual organisms, populations, and species.

Grade Levels: *Grade 6-8, Grade 9 - 12*
Class Content: *Life Science*

Aerospace: LCROSS

The history of the Universe, Solar System and Earth can be inferred from evidence left from past events. Students will design and engineer a spacecraft based on the LCROSS mission.

Grade Levels: *Grade 6 - 8, Grade 9 - 12*
Class Content*: Space Science*

Engineering Design: Systems

Students will use engineering principles to design and construct a system to solve a problem or complete a needed task.

Grade Levels: *Grade 6 – 8, Grade 9 - 12*
Class Content: *Space Science*