

ALDRIN FAMILY
— FOUNDATION —

EXPLORE

Rockets + Rovers



WITH THE FASCINATING BACKDROP OF
SPACE... COULD SUMMER CAMP GET ANY COOLER?

*AND... WE TIE IN SCIENCE, MATH, ENGINEERING, ART AND TECHNOLOGY -
CORE DISCIPLINES TO PREPARE OUR NEXT GENERATION OF SPACE EXPLORERS.*



Rockets & Rovers is a **multi-day camp for 6th through 8th graders** in your community. During the camp, students engage in project-based learning to strengthen their STEAM content knowledge and career readiness skills.

Rockets & Rovers provides students opportunities to engineer and launch their own rockets, code and operate a model robotic spacecraft and explore what life would be like living on the Moon.



This turn-key summer camp includes all materials, curriculum and professional development for streamlined implementation in your community. **For more information about the Rockets & Rovers Summer Camp, please contact info@aldrinfoundation.org**



A JOINT MISSION: AFF helps you command your summer camp with confidence. And best yet - all materials remain with the school district for you to use throughout the school year!

Advance professional development training for teachers and camp leaders prior to the start of the summer camp.

Daily lesson plans with detailed notes and instructions for teachers and camp leaders to use when conducting the camp.

All materials and equipment needed for each of the lesson plans, including the rockets, rovers and our signature Giant Moon Map™.



ROCKETS (2 HOURS PER DAY)

Students engineer, build and launch water rockets every day of the camp. In this unit, teams will engage in the engineering design process, learn safe launch procedures that model real rocket launch mission control and collect and analyze launch data. Each rocket build culminates with a challenge competition. **Content covered:** Coding, space science, problem-solving, communication and collaboration skills, kinesthetic skills



ROVERS (2 HOURS PER DAY)

Students build, code and operate a model robotic spacecraft. In this unit, teams will learn how to build and operate a LEGO® Education Spike™ Prime robot through a series of challenges that models how space experts explore our solar system. Each rover build follows a storyline from future lunar missions using AFF's signature Giant Moon Map™. On the enormous 33.5' x 15' vinyl map, various exploration sites are marked as targets for teams to conduct their missions. **Content covered:** Coding, space science, problem-solving, communication and collaboration skills, kinesthetic skills



ON THE MOON (2 HOURS PER DAY)

Students explore what it would take to live and work on the Moon. In this unit, teams will design and build a model of an outpost on the Moon while considering the constraints of the lunar environment, available workforce and sustainability. At the end of the unit, teams will present their proposed lunar outpost plans and models and engage in scientific argumentation to decide which team's project represents the best ideation. **Content covered:** Critical and creative thinking, space science, life science, nature of science, art and design, debating skills, presentation skills, kinesthetic skills

ROCKETS & ROVERS SUMMER CAMP IS ALIGNED TO TEXAS TEKS!

MATH

- Process Standards (6.1, 7.1 & 8.1 ABCDEFG)
- Numbers & Operations (6.3DE & 7.3AB)
- Expressions, Equations & Relationships (6.6C, 6.10AB & 7.11B)
- Proportional & Non-proportional Reasoning (6.4A, 7.4AB, 8.4ABC, 8.5FGHI & 8.9A)
- Measurement & Data (6.12A, 6.13B & 8.11A)

SCIENCE

- Process Standards (6.1, 7.1 & 8.1 ABCDEFGH)
- Scientific & Engineering Practices (6.2, 7.2 & 8.2 ABCD - 6.3, 7.3 & 8.3 ABC - 6.5, 7.5 & 8.5 ABCDE)
- Force, Motion & Energy (7.7ABCD, 8.7AB & 8.8AB)
- Earth & Space (6.9AB, 6.11AB & 7.9ABC)
- Organisms & Environments (6.12A & 7.12B)