



Class Title: Green Astronaut Academy

Subjects Covered: Science

Teacher Name: Marie Jones

Class Day: Friday

Class Size: 14

Overall Class Cost: \$30

Individual Student Supply Fee: \$0

Class Fee: \$96

Ages or color group served: Green

What level is this class: Level 2

Prerequisites: Students should be able to do the following:

Can decode simple words and read short sentences
Reads high-frequency words with some fluency
May need help with new vocabulary and comprehension
Kids need to know the beginning of writing/coloring/how to hold a pencil. Spelling not required.
light to no homework
Low intensity

Graduation Requirements: HCU Attendance Policy

Homework Requirements: Watching a video at home on certain weeks or finish a little assignment

Class Description:

In Little Astronaut Academy, students become space cadets and blast off on a hands-on journey through our solar system. Each week explores a new space topic, including the Sun, Moon, planets, stars, rockets, gravity, astronaut training, and life aboard the International Space Station.

This class uses models, experiments, movement games, art, building challenges, and imaginative play to make big science ideas understandable and exciting. Students will create an astronaut ID, build and test simple spacecraft designs, model Moon phases, explore craters, and practice solving problems like a real mission team.

The semester ends with a final simulated space mission where cadets use teamwork and knowledge from the course to complete challenges and earn a Little Astronaut Academy certificate. No previous Space knowledge is needed - only curiosity and a willingness to explore.

Skills Children Will Develop

- Basic understanding of the solar system
- Scientific observation and questioning
- Simple engineering and design thinking
- Making predictions and testing ideas
- Teamwork, communication, and problem-solving

- Confidence sharing new knowledge

No prior experience is needed. All activities are designed for beginner learners.

Week 1:

Welcome to Astronaut Academy

Focus: Space, astronauts, and mission teamwork

Activity: Create astronaut IDs and complete a cadet training course

Skills: Following directions, teamwork, and space vocabulary

Talk About: What astronauts do and why they train

Week 2:

Meet Our Solar System

Focus: The Sun, eight planets, and planetary order

Activity: Build a wearable or tabletop solar system model

Skills: Sequencing, comparing sizes, and recognizing planet names

Talk About: What makes a solar system

Week 3:

The Sun: Our Star

Focus: Light, heat, and why the Sun matters

Activity: Test light and shadow and create a Sun model

Skills: Safe observation, cause-and-effect, and prediction

Talk About: How the Sun supports life on Earth

Week 4:

Moon Explorers

Focus: Moon phases, surface features, and craters

Activity: Model Moon phases and conduct a flour-crater investigation

Skills: Observing patterns and testing impact variables

Talk About: Why the Moon seems to change shape

Week 5:

Rocky Planet Tour

Focus: Mercury, Venus, Earth, and Mars

Activity: Create planet fact cards and design a Mars rover

Skills: Comparing planets and simple engineering

Talk About: What rocky planets have in common

Week 6:

Giant Planet Tour

Focus: Jupiter, Saturn, Uranus, and Neptune

Activity: Build a ringed-planet model and compare planet sizes

Skills: Sorting, scale awareness, and descriptive language

Talk About: How giant planets differ from rocky planets

Week 7:

Gravity and Orbits

Focus: Gravity, falling, and objects moving around other objects

Activity: Complete a gravity drop test and orbit movement game

Skills: Making predictions and recording observations

Talk About: Why we stay on Earth and planets stay in orbit

Week 8:

Rockets and Launch

Focus: How rockets move and what they carry

Activity: Design and test a balloon rocket

Skills: Building, testing, measuring, and improving

Talk About: How pushing gas one way moves a rocket another way

Week 9:

Living in Space

Focus: Food, sleep, exercise, and hygiene in microgravity

Activity: Pack a pretend mission bag and solve astronaut daily-life challenges

Skills: Decision-making, comparison, and practical problem-solving

Talk About: How everyday tasks change in space

Week 10:

Stars and Constellations

Focus: Stars, patterns, and the night sky

Activity: Create a constellation viewer and invent a constellation story

Skills: Pattern recognition, imagination, and storytelling

Talk About: Why people connect stars into pictures

Week 11:

Spacecraft Engineering Challenge

Focus: Designing a safe spacecraft or lander

Activity: Build and test a landing craft for a small astronaut figure

Skills: Planning, teamwork, testing, and redesign

Talk About: Why engineers improve designs after testing

Week 12:

Final Space Mission

Focus: Review, teamwork, and mission completion

Activity: Rotate through launch, navigation, Moon sample, repair, and communication stations

Skills: Applying space knowledge and working as a mission team

Talk About: What cadets learned and which space topic inspired them most