



# CASE Junior Space School

## Program Itinerary\*

WEEK A	
Day 1	Students depart home for Houston, Texas with a flight time of approximately 20-22 hours. On arrival into Houston, students check into their hotel for an initial brief and well-earned rest in readiness for an exciting program.
Day 2	The scene is set on the first morning in Houston with the official Opening Ceremony. During an afternoon at Rice University, the students visit the stadium where President Kennedy gave his famous speech about travelling to the moon. In the evening students learn the history of space exploration with the Space Race movie night.
Day 3	Each day the students are energised with the mPOWER Energy Zone, Expression Zone and engaging presentation of the daily habit sets the right mindset for each day's activities. Students head out to conduct challenging DNA extractions and cellular analysis at Cell Lab. Evening activities include an introduction to their team project.
Day 4	Following the morning activities, the expedition sets off to explore the vast facilities of Johnson Space Center, NASA's headquarters. Students visit Starship Gallery, the Saturn V Rocket, tour the Astronaut Training Complex, and various exhibitions. In the evening, a motivational and interactive presentation by a scientist or engineer, with plenty of question time.
Day 5	Morning activities are more involved as groups prepare their team projects. Students are then introduced to biological and energy sciences as they relate to human survival in space. The first session discusses human biology before students undertake their own space glove design challenge. Students then learn about sustainable energy and design their own renewable energy source for use on Mars. An exciting cultural experience follows, attending a live basketball or baseball game, depending on the season.
Day 6	Students present their engineering design solutions for the team projects in the morning. The group will then enjoy a recreational afternoon of shopping at a Houston Mall before returning to the hotel. On the last evening in Houston, students are in for a special treat: an exclusive dinner with a former NASA astronaut. Following the inspiring presentation, they have chance to ask questions and talk directly to the astronaut.
Day 7	Goodbye Houston, hello Huntsville! The group departs the hotel to travel to their next destination, the U.S. Space & Rocket Center (USSRC) in Huntsville, Alabama. Students check in to the onsite accommodation, meet their crew trainer and tour the Center's facilities.

WEEK B	
Day 8	After breakfast students get straight into astronaut training at USSRC. They learn about the Mercury, Gemini and Apollo Space Programs, design their own mission patch and are briefed on their upcoming mission. For their next challenge, they head outdoors to the Area51 teamwork and leadership training course. Students will expand their critical thinking and problem-solving skills. Later in the day, students construct their own rockets and attend a Living in Space presentation.
Day 9	A morning tour and activities in Rocket Park, before students are immersed in their own Apollo Mission. This has them taking on roles, working as a team, and performing tasks to simulate a real space mission. A chance to try the Space Shot trainer simulates the feeling of rocketing into space beyond the Earth's gravitational pull
Day 10	Rocket construction and testing ready for launch tomorrow. Students will view Saturn V, the most powerful rocket ever launched and used in the Apollo 11 mission, which landed humans on the moon for the first time. Then, they take a tumble in the Multi-Axis Trainer, designed to simulate disorientation on re-entry into the Earth's atmosphere. A fun evening of team games rounds off another exciting day.
Day 11	Today students demonstrate their knowledge, teamwork and leadership skills during their lunar base presentation and their Bravo space mission. They will fine tune, test and then launch their rockets. They have fun with the Manned Manoeuvring Unit, simulating the frictionless environment of outer space, and the 1/6th gravity chair to master a moon walk.
Day 12	The final expedition day. Today students attend the official graduation ceremony and are awarded with the CASE Space School and USSRC certificates. Students then depart USSRC and head to Huntsville airport for the journey home.
Day 13-14	Expedition completed! With a transit time of approximately 20-22 hours students have time to reflect on their adventure and are farewelled with a closing ceremony at the airport when the group arrives back to their home country.

\*Proposed itinerary- program is subject to change, and weeks A and B are interchangeable