

# Space Camp 2025 Quick Details

- Brookfield Academy has been sending students to Space Camp for over 30 years. This year we will have up to 16 students attending and 4 teachers.
- We will be traveling via charter bus. This is the same company we have been using for many years. The bus will be leaving on Saturday, May 3 at 10:30pm from the Troy Campus. Please be at the Troy Campus by 10:00pm. The bus ride is about 10 hours long. Students are encouraged to sleep most of the trip.
- The bus has televisions, comfortable seating and a bathroom. Snacks, bottled water and a Space Camp activity book will be provided. We will be stopping for a meal on the ride down and back. Typically, McDonald's for breakfast and Taco Bell on the way back for lunch. These meals are included in the cost of the trip.
- We will be returning to the Troy Campus on Friday, May 9, around 11:00 pm. Phone calls and Bloomz posts will go out at least an hour before pick up.
- Children can bring inexpensive electronics for the bus ride back home. (an inexpensive Kindle Fire, older iPad, Nintendo DS are okay). Please do not pack Nintendo Switches, iPad Pros or laptop computers. Students can not have the game systems, tablets, cell phones or iPads at Space Camp. Their electronics will be collected and stored after the ride. Please also make sure the content on their devices are age appropriate.
- Space Camp does not allow food in the student rooms. Please do not pack snacks for them other than the bus ride down. We will pick up snacks for the student's ride home. **Please pack travel friendly snacks. Students can not take their snacks into Space Camp. Cupcakes and fruit cups are not good traveling snacks.**
- Students will have time typically each night to call home, sometimes they may have time in the morning if they get ready to start their day quickly. This prep time is also for showering, getting ready for bed or to start their day. Remember Space Camp is in the Central Time Zone. Students will not carry their phone throughout the day. Please pack a calling card or inexpensive prepaid cell phone. Expensive phones are always the phone that gets dropped or broken. I would recommend the Tracfone from Best Buy. It's a \$29.99 phone that will not ruin someone's week if it is broken. The battery also will last most of the week.  
<https://www.bestbuy.com/site/tracfone-blu-flex-8gb-prepaid-black/6577432.p?skuld=6577432>  
Several students can share one phone. Teachers will also allow students to use their phones.
- **Space Camp needs to be aware of any dietary needs at least a month ahead of time.**  
**Contact information: Food Services (256) 721-7138**
- Please make sure all health information is correct before we leave for the trip. Nurses station will be dispensing all medication including any over the counter medication.
- There is a water activity at Space Camp. Students will need a bathing suit that covers their full body and towel.
- Bedding is not provided by Space Camp. Please pack twin sheets, a pillow and small blanket or sleeping bag.
- Gift Shop money – Students typically bring around \$50 - 100+ for shopping. There are several gift shops at Space Camp with all kinds of souvenirs. There will be time in their schedule to shop at the end of the week.
- At the end of April and beginning of May, the weather in Huntsville can be all over the place. Averages vary from high 50 to 80's. Please make sure they pack shorts, pants and a light jacket.
- Students will receive a backpack and t-shirt for the trip. Backpacks and shirts will be given out before the trip. Students will also be given a shirt from Space Camp to wear at their graduation.
- Chaperones do not stay in the same rooms as the students. They stay at a hotel near Space Camp.
- Resources, photos and registration is done at [www.spacecamp.brookfieldacademy.net](http://www.spacecamp.brookfieldacademy.net)

# Introduction to How Space Camp Works



A BRIGHT HORIZONS MONTESSORI SCHOOL

## U.S. Space & Rocket Center

The U.S. Space & Rocket Center in Huntsville serves as the state's museum and archive dedicated to the U.S. space program and is the home of the original U.S. Space Camp and Aviation Challenge. The center was first envisioned by German scientist Wernher von Braun, the technical mastermind behind Germany's rocket development during World War II and America's most prominent promoter of human space flight. The U.S. Space & Rocket Center is the public face of the National Aeronautics and Space Administration's George C. Marshall Space Flight Center. Specialists in space museums recognize the U.S. Space and Rocket Center as having one of the world's premiere and most comprehensive collections of U.S. human space-flight hardware.

## Space Camp/Academy

When the Space & Rocket Center opened in 1970 as a public-relations extension of NASA's Marshall Space Flight Center, the Apollo program was entering a period of decline. The center, built on a piece of land donated by the U.S. Army from property at Redstone Arsenal, became home to some of the Apollo hardware and memorabilia as well as moon rocks collected during the missions, all of which formed the initial exhibits for the museum. The permanent collection also includes the Apollo 16 Command Module, Casper, and one of the three remaining Saturn V rockets from this era.



The U.S. Space & Rocket Center's collection is not limited to artifacts from the Apollo era, however. The collections of objects and other displays span the modern history of space flight, from early-twentieth-century experiments of American rocketry pioneer Robert Goddard to present-day projects such as the International Space Station. Space-flight specimens include a V-2 rockets from Germany and some of the original capsule trainers from the Mercury and Gemini programs. Before manned space flight, NASA tested the effects of space travel on animals. A squirrel monkey known as Miss Baker, who was one of the first two creatures to return alive to Earth after traveling in space, is buried on the grounds of the facility. The center's premiere artifact from the era of the Space Shuttle Program is its full-size static display of the Space Shuttle *Pathfinder*, the 75-ton steel orbiter simulator used to create procedures for moving and landing the vehicle, mounted atop a 154-foot external tank and two 149-foot solid rocket boosters. As an interactive museum, the Space & Rocket Center includes an IMAX theater, hands-on exhibits and mock-ups, and launch and space-flight simulators.

## U.S. Space & Rocket Center Museum

Stored within the center's archives is the most complete collection of von Braun's papers, covering his career in the United States and some documentation from his early years in Germany. The archive maintains thousands of books and technical documents, materials from the World War II Ordnance officers who eventually worked with the German engineers brought over to the United States after the war, a collection of government documents from the early space age, and science fiction data from the 1920s.



## Space Camp Gravity Simulator

Although the center is well known for its historical collections, it is perhaps better known as the home of the original Space Camp program. Begun in 1982 as an effort to encourage children to explore careers in mathematics, science, and technology, the original Space Camp provided attendees with an opportunity to learn what it would be like to be an astronaut. Campers can get the feel of working in space or on the Moon when strapped into the 5-Degrees-of-Freedom Chair, which floats on a cushion of air, and the 1/6 Gravity Chair. The experience at Space Camp includes a series of classroom lectures about rocketry and space flight and a simulated space mission. Space Camp attendees also have exclusive access to shuttle and space station mock-ups, mission control, living habitats, and the Underwater Astronaut Trainer (also known as a neutral buoyancy simulator). This simulator allows campers to use SCUBA equipment to dive in the large tank and simulate repair missions to the space shuttle and space station. Other than the simulators located at NASA's Johnson and Marshall Space Flight Centers, the UAT is the closest experience to astronaut training one can find.



## U.S. Space & Rocket Center

As the U.S. Space & Rocket Center approaches its 40th anniversary; it remains a historical monument to the U.S. space program. Not only does the center work to preserve history as a museum and archive, but through its programs for children and adults, it continues to promote future space exploration. The center's relationship with NASA's Marshall Space Flight Center helps to keep Huntsville on the leading edge of American rocket and space development.

In 2008, Good Morning America named the Saturn V one of the Seven Wonders of America (ranked 5th), and televised a segment honoring the Saturn V from the Davidson Center.

## The Basics of Space Camp



Students come to Huntsville, Al., from all over the United States as well as 40 other countries. The U.S. Space and Rocket Center also runs Space Camps in Turkey and Canada. Additional Space Camps are planned for South Korea and the United Arab Emirates. There are Space Camps for the hearing and visually impaired, for corporate groups, for educators looking to enhance their classroom science curriculum and for parents looking to spend some quality time with their kids.

One of the reasons why everyone can go to Space Camp is that it's not exactly the astronaut-training program many of us see it as. It's really an educational camp focused on flight, engineering, physics, astronomy and robotics. It's about inspiring people, especially kids, to pursue academic success in math and science. That's why NASA big shot Dr. Wernher von Braun got the ball rolling in the first place. Von Braun, the rocket scientist who headed up Marshall Space Flight Center in Huntsville from the Mercury through the Apollo missions, wanted kids to get in on the action. He pitched the idea for a camp in the 1970s, and in 1982, Space Camp opened in Huntsville as part of the U.S. Space and Rocket Center. Since then, over 500,000 people have graduated. Teens can actually get college credit for graduating from **Advanced Space Academy**.



## Space Camp Programs

**Space Camp:** Ages 9 to 12

**Space Academy:** Ages 12 to 14

**Advanced Space Academy:** Ages 15 to 18, with tracks for Mission Specialist, Pilot, and Pilot/Scuba (simulates piloting in a microgravity environment)

There are also Parent/Child Camps, Educator Camps, Corporate Training Camps and spin-off camps like Aviation Challenge and X-Camp.

## A Trip to Space Camp

**Space Camp** is the ultimate 6-day experience for campers ages 9-12 who want to be an astronaut. Experience life onboard the orbiter and International Space Station during your shuttle mission.

Tumble through the atmosphere, bounce on the Moon and glide through space as you perform tasks in our astronaut simulators. Building and launching your own rocket, experiencing 4G's during liftoff on the Space Shot™, and climbing the Mars Climbing Wall are just a few of the awesome activities that await you and your friends at Space Camp.



One thing Space Camp offers that you won't find elsewhere are simulators. In addition to mock space shuttles, Mission Control Centers and simulated trips to the International Space Station, there are physical simulators. The simulators include:

**Five Degrees of Freedom (5DF)** -- The 5DF is a space-walk simulator that was used for training during the Gemini program in the 1960s. It's a seat that floats a half-inch (1.27 cm) above the ground and spins freely on two axes -- front-to-back and side-to-side. The occupant uses controls to move the unit along a third, up-and-down axis, which creates a moonwalk sensation.

**Manned Maneuvering Unit (MMU)** -- The MMU simulates extra-shuttle missions in Earth orbit. It's the kind of robotic device an astronaut would use to do shuttle repairs in microgravity. A seat moves around freely on all axes with no friction, and the operator uses a joystick to try to control the unit's movements.

**Microgravity** -- The microgravity training chair is a simulator that prepared astronauts for moonwalks during the Apollo program. It hangs from springs that offset five-sixths of a person's weight, replicating the experience of moving in a microgravity environment.

**Multi-axis** -- This simulator consists of a seat attached to a spherical frame, and it spins freely and simultaneously on all three axes.

**Space Shot** -- The Space Shot is sort of like a mini roller coaster. It accelerates rapidly so the student experiences 4 G-forces (four times the force of gravity). This creates the sensation of escaping Earth's gravitational pull.

**Zero-G Wall** -- This simulator creates the experience of moving around in a zero-gravity environment. The student sits in a chair suspended from a swivel frame. The chair moves up and down with no effort at all as the occupant tries to move around and accomplish tasks.

Space Camp activities are pretty wide-ranging. Depending on the program and duration, a student might get to build a robot, design a space mission to Mars, train on a ropes course, meet an astronaut, launch a rocket and pick up some fighter pilot skills. It's a pretty unique experience, and according to the folks behind the program, it's more than fun and games; it's an investment in the future. The U.S. Space and Rocket Center estimates that more than 90 percent of graduates take more math and science classes than they did before attending Space. It's hard not to be inspired by a moonwalk.

## Information for Parents from Space Camp

### Age/Grade Appropriateness

Since we opened our first camp in 1982, we have gathered a wealth of experience developing and providing a curriculum that is age and grade specific. Reading levels, cognitive learning skills, and emotional maturity are just a few of the factors we have used over the years to develop programs that will not only be fun, but "comfortable" for young people of all backgrounds. For example, we make every effort to arrange teams so that each child has an age or grade in common. We know from experience that a child is not going to enjoy our camp if he or she is intimidated by older students or can't keep up with the intellectual or physical demands of a level higher than what we have designed for them.

### Counselor Qualifications and Training

You are entrusting us with the security and well-being of your child. Our rigid standards for hiring qualified counselors, as well as training them, have been established to ensure that your child enjoys a safe, fun and educational experience while attending our programs. A minimum of two years of college or equivalent experience is mandatory for all counselors. While a significant percentage of our staff are education majors, others are pursuing degrees in business, science, math or the liberal arts. The common thread they all share is that they want to work with children. Many staff members have actually gone through the camp programs as trainees. Every potential counselor must pass a comprehensive background check, pre-employment attitude test and drug screening prior to employment. Once employed, and before they ever meet a trainee, all program staff members receive training in the following areas: program facts and history; simulator safety and operation; proper discipline techniques as outlined by the American Camping Association; and age-specific behavioral characteristics. All counselors are closely supervised and are evaluated weekly at the end of each camp session by their team members. We encourage parents to meet program staff members at registration and graduation.

### Security

Camp supervisory staff and a separate security staff are on site or on call 24 hours a day, seven days a week when camp is in session to ensure the safety of your child. At no time are trainees allowed off-site individually or as a group without an accompanying adult. Off-site trips are limited to those included in the program curriculum.

### Safety

The safety of all trainees is of utmost importance. Counselors are highly trained and certified in the proper use of all simulators so that all trainees may have a safe, enjoyable experience (Some of the space flight simulators may cause motion sickness).

Each simulator is built to the highest standards and all equipment is safety checked and maintained by professional technicians. Each enclosed simulator is equipped with smoke detectors. It is mandatory that trainees wear safety helmets when using most of the astronaut training equipment.

A minimum height of four feet is required for the simulators used in the program curriculum. Maximum weight for astronaut training simulators is 260 pounds per person.

### **Medical Staffing**

Medical staff members are on-site 24 hours daily.

All medications (prescription, over-the-counter, vitamins, herbal) are collected during registration and dispensed as directed by you or the prescribing physician. They must be in their original containers with labels and instructions in English. Trainees requiring injections must provide medications; syringes; and legible, signed instructions from your physician. Any medically related questions may be directed to the nursing staff at the camp in which you are interested. Refer to Camp Phone Listings.

### **Special Needs Accommodations**

Every effort is made to accommodate individuals with special needs. Special needs include physical disabilities and dietary restrictions. To learn more about our capabilities, please call the camp you're interested in attending.

### **Meals**

Breakfast, lunch and dinner are provided in a common dining area from the afternoon/evening of arrival up to graduation. At each meal, we offer a variety of foods to appeal to different preferences. Snacks and soft drinks are also available at various sites within the facility at the trainee's expense. We try to accommodate trainees with special dietary requirements. If the requirement exceeds our capabilities, trainees can bring their own food and/or pay the additional cost of meeting those needs. Do not send food to camp with your child unless it is to accommodate special dietary needs.

We do require advance notice if your child will be bringing food for this reason - please call the camp you are attending.

## **Sample Menu**

### **Breakfast**

Scrambled eggs  
Sausage  
Biscuits  
hash browns  
Pancakes or waffles  
Fresh fruit  
Assorted cereals  
Milk and juice

### **Dinner**

Meat entree  
Vegetarian entree  
Selection of vegetables  
Pizza  
Sandwiches  
Salad bar  
Assorted ice cream  
Choice of soda, milk or water



### **Lunch**

Sandwiches  
Homemade soup  
Fruit  
Assorted cakes  
Salad bar

## **Telephone Information**

Here are some phone numbers for reference while your child is at camp. If you have health or diet questions, feel free to phone the nurses or dietary staff. Students can also receive mail. Please send mail by Monday to make sure students get the mail by Friday.

# U.S. Space Camp / Aviation Challenge Reservations

PO Box 070015  
Huntsville, AL 35807-7015

Chaperone Phone Number:	(520) 4-SPACE-4
Customer Service:	(800) 637-7223
24-Hour Operator:	(256) 837-3400
Customer Service Fax:	(256) 890-3369
Camper Services:	(256) 721-7185
Camper Services Fax:	(256) 721-7135
Nurses Station:	(256) 721-7162
Food Service:	(256) 721-7138
Gift Shop:	(256) 721-7116
Huntsville Tourism:	(800) 772-2348
Email Addresses:	customerservices@spacecamp.cor camperservices@spacecamp.com

**JOIN SPACE CAMP 2025 BLOOMZ GROUP**  
**CODE IS: ZNNT5G**

# A TYPICAL DAY AT SPACE CAMP

## **7:00 a.m. - 9:00 a.m.**

Campers wake up and prepare for the day. Breakfast is served in the cafeteria. Pre-ordered clothing is received by campers on typically Monday morning.

## **9:00 a.m. - 12:00 p.m.**

Our campers participate in exciting astronaut training simulators such as:

- MAT (Multi-Axis trainer): Feel what it's like to tumble and spin in space!
- 5DF Chair (Five Degrees of Freedom): Experience the challenge of working in a frictionless environment like space!
- 1/6th Gravity Chair: The moon has 1/6<sup>th</sup> of the Earth's gravity, so if you weigh 120 pounds on Earth you would only weigh 20 pounds on the moon - what would it feel like to walk on the moon? You'll find out on this simulator!
- MMU (Manned Maneuvering Unit): This simulator prepares astronauts for working during extra-vehicular activity.
- Simulated Shuttle Mission Training: During this time campers learn about and prepare for their simulate shuttle mission. Our Mission Center Complex hosts five shuttle simulators, five mission controls, and a mock-up of the International Space Station.

## **12:00 p.m. - 1:00 p.m.**

During and after lunch campers have time to socialize and participate in team building activities.

## **1:00 p.m. - 5:00 p.m.**

Our campers participate in more space related activities such as:

- All campers get to experience the U.S. Space & Rocket Center, which is recognized as one of the most comprehensive U.S. manned space flight hardware museums in the world. Campers participate in activities that teach the history of manned space flight while observing real artifacts from the space program.
- Build your own rocket and launch it toward space from our rocket launch facility.
- Mars Mission: Prepare for Interplanetary travel! Take a trip to Mars and study its soil, geology and climate to help determine where astronauts should colonize the future.

## **5:00 p.m. - 6:00 p.m.**

Dinner is served in our cafeteria.

## **6:00 p.m. - 9:00 p.m.**

Our campers participate in additional space related activities such as:

- Campers watch space related movies in our state of the art IMAX<sup>®</sup> and 3-D Digital theaters.
- Hands on science experiments that recreate actual experiments performed by astronauts.
- Campers learn more about astronomy by participating in fun activities.
- Put your knowledge against the other teams in the Space Bowl. Who learned the most this week?

## **9:00 p.m. - 10:00 p.m.**

Campers return to their dormitory and prepare for bed, take showers and call home.

## **10:00 p.m.**

Rest Time. Lights Out!

# What to pack for Space Camp

- Combination Padlock (please learn how to use it before going to camp)
- Toothbrush/Toothpaste
- Bath Soap
- Deodorant
- Shampoo
- Hair Brush / Comb
- Sleepwear
- Twin sheets, pillow, blanket and or sleeping bag
- Casual Clothes (7 days' worth)
- Sunscreen (minimum of 30 spf)
- Swimsuit (one piece, with swim shirt)
- Beach towel for water activities
- Climate appropriate outerwear (jacket, poncho, rain gear)
- Socks and athletic shoes
- Aqua shoes or old sneakers for getting wet
- Zip lock bags for soiled clothing (try to avoid large garbage bags)
- Calling card to call home / Prepaid Cell Phone (non smartphone)
- Spending Money—*Teachers can hold on to the children's money in an envelope if parents wish. Money would be given to students upon request.*
- Spending money for vending machine snacks in \$1.00 denominations
- Any medication \*needs to match online health forms and be in original packaging. No loose pills in plastic baggies.



Make sure you leave a little room in your bag for any gifts you would like to bring home.

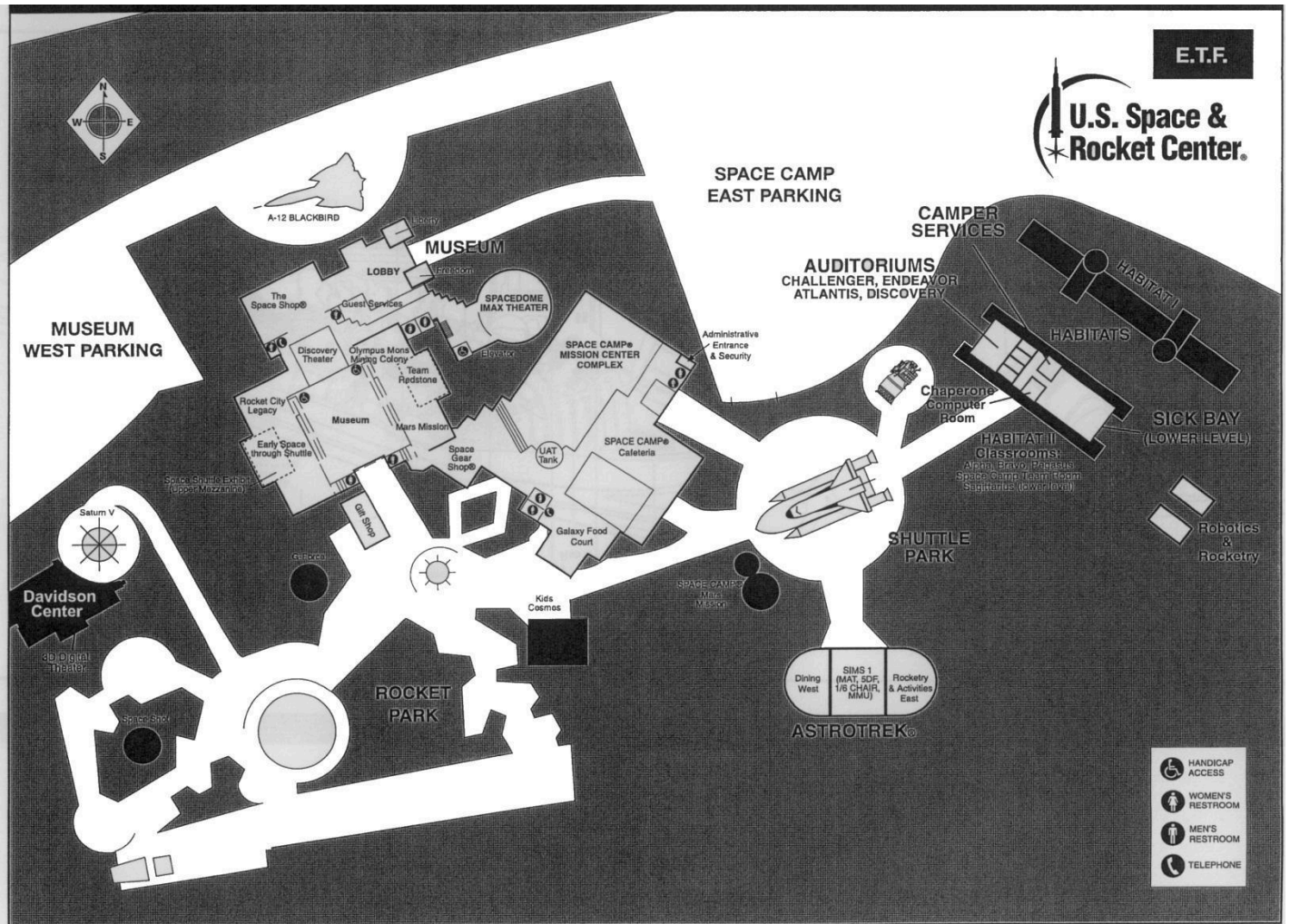
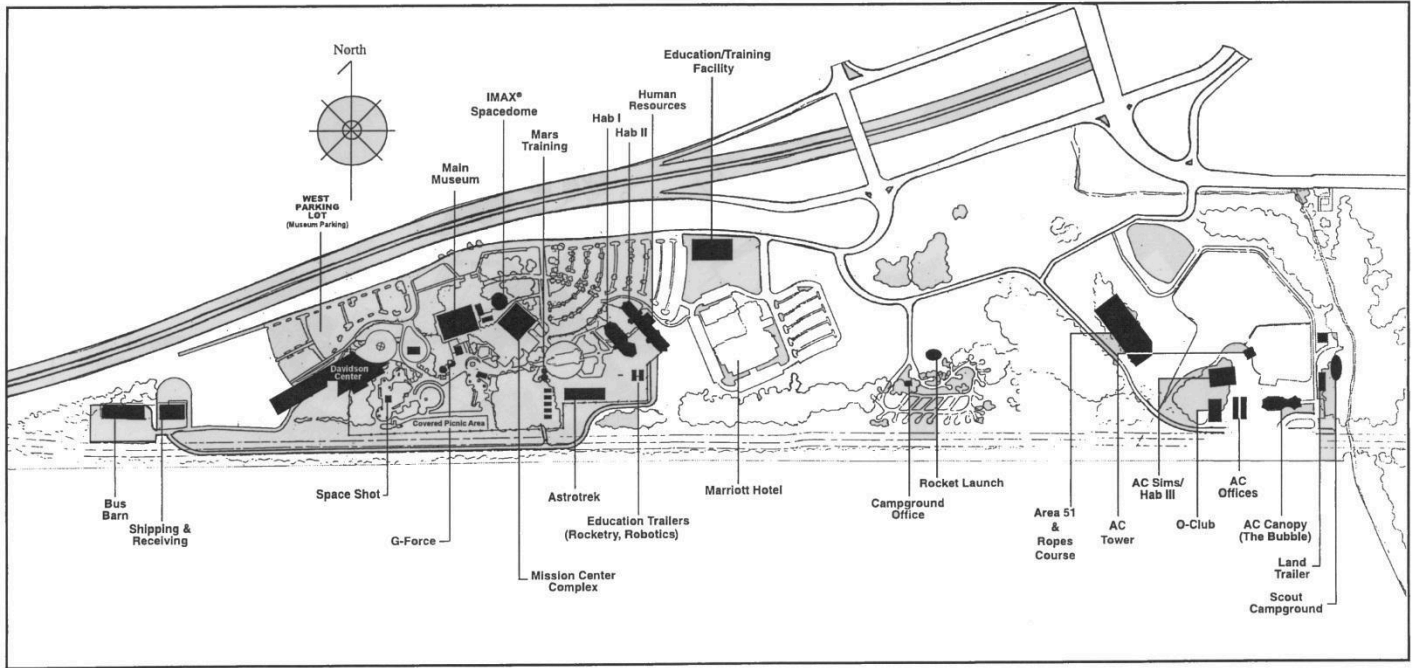
**\*\* Be sure not to bring expensive cellular phones, large electronic games, skateboards, roller blades or other expensive items that may be lost or damaged\*\***

We ask that all students wear their Brookfield Space Camp T-shirts when traveling to and from Space Camp. Please keep this in mind when packing for the trip.

*There is a nurse and medical staff on duty 24 hours a day. All medication should be given to one of the teachers on the day of departure with instructions for dispensing. All medication will be collected and dispersed by the nursing staff at Space Camp. Please make sure the student online health form matches the medication given.*



# Space Camp Maps





# Brookfield Academy

Space Camp Sign-up: Due in your school office on or before December 19, 2024

1. Brookfield Academy is planning a trip to Space Camp in Huntsville, Alabama during the month of May, 2025. (May 3<sup>rd</sup> – May 9<sup>th</sup>)
2. Students will drive to and from Space Camp accompanied by the Brookfield Academy chaperones.
3. The students will spend one week at Space Camp under the direct supervision of the Space Camp staff.
4. Brookfield staff will supervise children while traveling, as well as accompanying them throughout the day while at Space Camp.
5. Students will travel via chartered bus from the Troy Campus. They will be picked up at the Troy Campus when they return by a parent or adult guardian.
6. This year's estimated price for Space Camp is \$2,600 per student. We can expect this year's cost to be close to that figure. You are liable for whatever costs are not covered by fundraising at your campus. Your principal can provide more information about what fundraising typically covers.
7. This form accompanied by a deposit of \$250.00 constitutes a commitment on your part to pay the remaining portion of the camp fee and to abide by the rules for cancellation.
8. By signing this form you understand that if you cancel after reservations are made, you definitely will be liable for the cost of the trip. Reservations will be made upon receipt of this form. You further understand that if you do not sign up by the deadline, we will not be able to add your child at a later date.
9. By signing this form you agree to be responsible for Space Camp tuition costs and understand that no reimbursement of tuition will be given unless cancellation is made in writing in accordance with the policy.

I, the undersigned, have read items 1-9 above.

I want my child, \_\_\_\_\_ to participate in Space Camp.

Parent signature: \_\_\_\_\_

Date: \_\_\_\_\_

I, the undersigned, have read items 1-9 above.

I **DO NOT** want my child, \_\_\_\_\_ to participate in Space Camp. They will attend regular classes during that week and I understand that there will be no groups or lessons that week for them.

Parent signature: \_\_\_\_\_

Date: \_\_\_\_\_

# Full Release and Hold Harmless Agreement

THE UNDERSIGNED, \_\_\_\_\_ being the  
custodial parent(s) or guardian(s) of \_\_\_\_\_ ( hereby acknowledge,  
and agree as follows:

1. I/We hereby give permission for my/our child to attend the Space Camp at the U.S. Space and Rocket Center in Huntsville, Alabama from **May 3 to May 9, 2025** Students will travel to and from the U.S. Space and Rocket Center (Space Camp) via chartered bus. This trip is voluntary and optional and the parents/guardians may elect to have their child participate in this event.
2. We/I, on behalf of myself/ourselves and my/our minor child, do hereby agree to release, to hold harmless, and to indemnify Brookfield Academy and its owner, Bright Horizons Family Solutions, Inc., its subsidiaries, and all their employees, from any and all actions or claims of any kind, including claims of property damage or claims of personal injuries, associated with the trip or my child's participation therein.
3. This agreement shall be governed by the laws of the State of Michigan.
4. By signing below, I/we acknowledge that I/we have read this agreement, that I/we understand its terms, and that it shall be binding upon me/us, my/our minor child and our heirs and personal representatives.

Signature of Parent/Guardian: \_\_\_\_\_

Date \_\_\_\_\_

Signature of Parent/Guardian: \_\_\_\_\_

Date \_\_\_\_\_