



Suggested Timeline & Important Dates

Please note that this is a suggested timeline. Teams may determine how and when they work on various aspects of the project.

Teams should go above and beyond what is listed on this timeline. Judging is not restricted to only the areas below

IMPORTANT DATES

October 9, 2009 – Application deadline

October 23, 2009 – Deadline to submit team photograph and t-shirt form

November 17, 2009 – Coaches Meeting, 4:30 p.m. – 6:00 p.m.

Fiesta Bowl Museum
7135 E. Camelback Rd., #190
Scottsdale, AZ 85281

December 7, 2009 – Aerospace Challenge Preliminary Competition DAY 1
Arizona State University at the West Campus, Phoenix, AZ

December 8, 2009 – Aerospace Challenge Preliminary Competition DAY 2
Arizona State University at the West Campus, Phoenix, AZ

December 31, 2009 - Aerospace Challenge Finals
Challenger Space Center, Peoria, AZ

January 4, 2010 – Tostitos Fiesta Bowl
University of Phoenix Stadium, Glendale, AZ
Winning team will be presenting on-field at the game



The following is a suggested timeline addressing the various components necessary to complete your project. Teams are encouraged to go above and beyond what is listed.

Week 1

Research Past, Current and Future Plans for Lunar Habitation & Team Details

- Form team roles (possible roles suggested below):
 1. **PRINCIPAL INVESTIGATOR:** Communicates with teacher, assigns tasks, distributes resources, ensures that team meets deadlines.
 2. **SCIENTIST:** Checks report for scientific accuracy, provides scientific information and basis for the report; quantifies the design ideas.
 3. **ARTIST:** Illustrates the ideas of the group using traditional art materials or computer graphics.
 4. **RESEARCHER:** Guides the research process; collects and prints information from Internet sites, books; writes the bibliography for the written report; works closely with the scientist in the group.
 5. **TASKMASTER:** Gathers all the necessary resources and materials, types the report; works closely with the project leader.
- Gather information on past, current and future plans for Lunar Habitation.
- Initiate design concepts for your Lunar Base.
- Design 30-centimeter mission patch.
- Determine Team Name.
- Determine team quotation.
- Take team photograph and submit.
- Submit t-shirt sizes.

Week 2

Determine Living Conditions

- Explain how air, food and water will be accounted for and the amounts necessary to sustain a crew of up to 40 people for two years.
- Provide a mechanism that will describe how waste products will be treated and recycled.
- Determine where the base will be located on the moon.
- Develop a plan for protecting the Lunar Base from solar radiation, cosmic rays and debris.
- Explain how the Lunar Base will address the issue of low gravity?



Week 3

Helium 3 Mining, Processing and Storage

- Gather information on Helium 3.
- Explain how satellites will be re-deployed into GEO (Geosynchronous Earth Orbit) satellites.
- Develop a plan on how the Helium 3 will be processed and stored.

Week 4

Secondary Lunar Base Mission

- Determine which of the secondary mission options your team will work on and develop a plan for implementing that mission.

Week 5

Design of Base Interior and Creation of Scale Drawings

- Design and represent through scaled drawings, the Space Station interior including three scale (metric) drawings from:
 1. Habitation Module
 2. Recreation Module
 3. Work Module

Week 6

Lunar Base Society

- Provide written description of the following:
 1. Background of Culture
 2. Human Tasks
 3. Organization
 4. Communications
 5. Arts and Aesthetic Values
 6. Medical Care
 7. Age Requirements



Week 7, 8 & 9

Building of Model/Verbal Presentation Prepared

- Plan of model design.
- Build model.
- Provide a listing of all materials that were purchased for the model.
- Provide scale (metric) conversion.
- Prepare any visual aids which may be used.
- Finalize Mission Patch.
- Practice presentation and determine involvement of team members.
- Assemble and print final report.

CONTINUOUSLY

- Collect any recycled materials to be used for physical model.
- Collect all receipts from purchases.
- Research lunar habitation.