This 4-H project is designed to help you explore the world of aerospace, from learning about rocket parts and how they fly to building a rocket and demonstrating to others what you have learned.

Here’s what you can do all year!

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**Communication**
- Prepare and give a speech about a model rocket exhibit at a science fair, club or achievement days.
- Demonstrate glider flight capabilities.
- Interview a pilot.

**Citizenship**
- Organize a rocket launch.
- Organize a kite-flying contest.
- Volunteer at a local airport or airshow.

**Leadership**
- Organize an airport tour for your 4-H club.
- Conduct an aerospace skillathon.
- Teach a workshop on aerospace.

**Entrepreneurship**
- Build and sell kites.
- Organize a kite flight contest.
- Teach a class on model rocketry, kite building and model airplane flying.
- Open a small retail operation to sell airplane, kite and rocket kits.

Learn more at [www.ndsu.edu/4h](http://www.ndsu.edu/4h) or contact your county NDSU Extension office.
Opportunities to explore aerospace:

- Explore an aerospace career using online resources.
- Shadow an airline employee for one day.
- Attend an aerospace event or camp.
- Visit a local airport and have a pilot and/or mechanic talk about flying.
- Look for opportunities to take the ground school portion of a flight training class.
- Visit with an aircraft maintenance engineer to learn about aircraft maintenance.
- Take a flight with a flight instructor.

### 4-H Resources
- National 4-H Curriculum Books
  - Pre-Flight (HCA131)
  - Lift-Off (HCA132)
  - Reaching New Heights (HCA133)
- Pilot in Command (HCA134)
- Flight Crew Helper’s Guide (HCA231)
- Educational Trunk
- Pop Bottle Rocket Trunk (Reserve through your county Extension office)
- Aerospace Event
- National Youth Science Day

### Other Resources
- UND Aerospace
  - Basics of Rocketry (Educators area of NASA website)
  - National Association of Rocketry
  - NASA Science
  - NASA Kids Club
  - NASA Education for Students
  - NASA Education for Educators

### Recordkeeping
- Planning for My Project Adventure (PA093)
  - (Ages 8-10)
- 4-H Project Plan (PA095)
- 4-H Plan of Action (PA096)
  - (Ages 11-18)
- ND 4-H Participation Summary for 11- to 19-year-olds (PA098)

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### Exhibit Ideas

- Build model rockets from a kit.
- Build model rocket from your own design.
- Build a model airplane from a kit or your own design.
- Create a display of aviation principles.
- Create a display of in-flight procedures.
- Create a poster with pictures of places you’ve visited, your first plane ride, programs you’ve participated in, types of planes, etc.
- Develop a booklet on specific types of planes; knowledge of how planes/rockets work.
- Do a report (could include interviews with people) on the history of space flight; history of space exploration or astronauts; careers; aerospace related to agriculture; how planes or rockets work; principles of flight or military air battles.
- Write a story about aerospace or space flights, rockets, etc. (can be science fiction).
- Create a booklet on specific types of planes; knowledge of how planes/rockets work.
- Build any other model (helicopter, etc.).

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