



Take Flight Interest Project

Breakin' It Down

Powered flight has been around since 1903; however, to fly like a bird has been on the minds of humans for centuries. You too can explore more of our highways in the skies and soar with the eagles. This interest project will help you “take flight” on your own winged adventure.

HERstory

The “Take Flight” Interest Project was developed by the Girl Scouts of Connecticut. Each fall, Cadette, Senior and Ambassador Scouts spend an exciting weekend at Camp Sikorsky hosted by Sikorsky Aircraft in Stratford, CT. Girl Scouts have the opportunity to learn about aviation, tour the factory, and attend workshops led by military and Sikorsky personnel, then camp out on the Sikorsky Aircraft lawn. This IP is adapted from the Highways in the Sky IP of the Golden Plains Council in Wichita, KS and the World of Flight IP of the Totem Council in Seattle, WA.

You’ve got MAD skills

By completing activities in the “Take Flight” Interest Project, girls across the country can:

- Explore careers in aviation-related professions.
- Learn the parts of an airplane, the layout of the instrument panel and forces of flight
- Discover how your body might react during flight, and its affect on your performance skills

Helpful Links

- Smithsonian National Air & Space Museum www.nasm.si.edu/education
- Young Eagles www.eaa.org/youngeagles/
- International Women’s Pilots Organization www.ninety-nines.org
- Civil Air Patrol www.cap.gov
- Women in Aviation, International www.wai.org/

Need Help?

- Do the one REQUIRED activity
- Do ONE activity of your choice from each of the THREE categories (LEARN, DO, SHARE)
- Design and do ONE activity of **YOUR OWN**
- Create a short **REFLECTION** after you’ve completed **all of the activities**

Important

The "Take Flight" Council Interest Award may be obtained through the Girls Scouts of Connecticut Shops. You may shop online at www.gsofct.org > Shop. You may also contact them at 203-234-6253 or shop@gsofct.org. Please contact the Girl Scouts of Connecticut Program Department for more information about this award at 203-239-2922 or 800-922-2770 or program@gsofct.org.

Food for Thought!

Often, an activity in the "LEARN" category will help you build a skill that you'll have the chance to try in the "DO" category and then share in the "SHARE" category. Make connections between the "steps" when planning which activities you'll do. For an example of a skill-building connection, check out the third activity of each "Take Flight" category.

Required

Did you ever wonder how a plane stays up in the air? How does a bird fly? We all know that you can't simply flap your wings, jump high and take flight! The forces of flight are the same whether it's a lighter-than-aircraft glider or a heavier-than-aircraft airbus. Start by learning about the four forces of flight and the tug-of-war between lift versus weight and thrust versus drag. Share what you've learned with a group of friends. Then have a flight fest by building and flying a kite or paper airplane. Share your designs and using what you've learned, talk about the changes you can make for a better flight.

Learn

1. Learn about the parts of a small plane and the layout of its instrument panel. Find out more about the control surfaces: ailerons, elevators, rudders. There are many kinds of planes within each category of lighter and heavier-than-air aircraft. Are all parts and panel indicators in all types of craft? If not, how are they different?
2. Your body is designed to live and work on the ground. However, when in flight, your body can be put into positions that are in conflict with what is seen or felt. We can become disoriented, and notice changes in our reaction time. Research and perform (with a friend) three activities each that would test your sense of balance (spinning in a chair), affect spatial illusions (repeating placement of objects sitting in front of a mirror) and reaction time (timing each other number twelve index cards and touch each card in order, reverse order, only even numbers, etc). What did you discover?
3. The field of aviation includes many occupations from pilot to meteorologist to baggage handler. Select and research an aviation-related career. What are the educational requirements? Are there any physical/medical requirements? Does this position require a license?
4. Read about three women aviators. How did they become interested in flight? What education was necessary? Did they experience any difficulties in becoming pilots?

Do

1. Test yourself on the names of the different parts of an airplane by creating flashcards. On the cards, describe how these parts help a plane fly.
2. Talk with a younger troop about planes, the four forces of flight and how all forms of aircraft are affected by them. Have them make paper airplanes and demonstrate the forces. Research some fun activities for them to perform so they can experience what they've been taught.
3. Interview two females who are employed in the aviation industry. Try to choose two different professions within the industry. How did they choose their careers, and what steps did they take to prepare themselves? Find out how long have they been working at their present jobs and what are their future plans? Tip: see links above or contact local aircraft manufacturing facility.
4. Write a story about the history of women in aviation. Who were the first female pilots? Have there been any female pilots in the military? Is it necessary for a female astronaut to be a trained pilot?

Share

1. Organize a visit to a small local airport for your troop. Note the different types of aircraft and variations of part design. If possible, arrange to see the inside of a small plane to see the cockpit and its instrument panel.
2. Based on what you've learned create an aviation game or puzzle (jigsaw, crossword, word search) and share it with a younger troop.
3. Invite a panel of speakers – representatives of several aviation occupations – to discuss career options with your troop in the aviation industry. Encourage the audience to ask questions.
4. Volunteer to put together an aviation bulletin board on women aviators for a local library, community center, youth program or your school.

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