

Future Pilots Patch

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Complete the following requirements for your program grade level:

- Girl Scout Daisies & Brownies
 - Complete 3 Discover, 2 Connect, 1 Get Involved
- Girl Scout Juniors & Cadettes
 - Complete 4 Discover, 3 Connect, 2 Get Involved
- Girl Scout Senior & Ambassador
 - 5 Discover, 4 Connect, 3 Get Involved

Patch requirements are separated into 3 sections:

- **Discover:** Learn about aviation and the different careers surround flight.
- **Connect:** Explore aviation through different lenses.
- **Get Involved:** Take the lead and share with others the wonders of flight!



These activities may be completed as a troop, as a Juliette, or with family at home. Once girls have completed the patch requirements, please complete the online patch reporting form by January 2025. Only one entry per troop or Juliette is required. Online patch reporting form found [here](#).

Discover

- Read a book or watch a documentary about a historical woman/women in aviation
- Learn phonetic alphabet used by aviators. Write a code or phrase in the phonetic alphabet to decode with your friends or family. (last page of packet)
- Create an ad for the Federal Aviation Administration (FAA) showing its role in aviation.
- Build a paper airplane in three different ways.
- Create a poster to show the forces involved in flight.
- Name 3 – 5 different animals that fly and research how they fly.
- Learn about the TRUST certification, what it is and why it's important.
- Learn about the Part 107 Remote Pilot License, what it is and why it's important.
- Read a book about weather patterns.
- Learn the airspace regulations you need to know to fly a sUAS (drone).
- Find a diagram of drone. Identify the types of controls on a drone and what they do (yaw, pitch, roll, etc).
- Learn 3-5 different ways drones are used today.
- Research 3 colleges or universities that highlight aviation (in any capacity).
Majors can include aerospace engineering, aviation and aerodynamics, Air Traffic Management, Aviation Technology, Physics, Chemistry, Etc.



Connect

- Design your own flying aircraft. With the help of a parent or guardian, share it on social media.
- Visit a museum that showcases aviation.
- Visit an airport or launch pad. With the help of an adult, share a photo of you at the site on social media.
- Attend an aviation focused workshop or event at Camp Whispering Cedars home of the STEM Center of Excellence and fly a drone.
- Attend a drone weekend workshop at Camp Whispering Cedars home of the STEM Center of Excellence to learn about drones and the controls of a drone.
- Visit and interact with creatures that fly.
- Interview a pilot or engineer in the aviation field.
- Fly a sUAS (drone), make sure that you are obeying airspace regulations.
- Interview an IF/THEN Ambassador in aviation.
- Interview a professor/flight school instructor with any aviation-aligned courses at a college, university or flight school.
- Look up a Women in Aviation Day event near you happening in September.



Get Involved

- Reach out to an aviation company to interview an employee (designer, engineer, fabricator, etc.). Some examples of aviation companies are Skydio, DJI, Skyviper, etc.
- Take the free TRUST Certification [here](#). Or learn about the TRUST certification, what it is and why it's important.
- Create an ad for the Federal Aviation Administration (FAA) showing its role in aviation.
- Build a paper airplane in three different ways.
- Create a poster to show the forces involved in flight.
- Name 3 – 5 different animals that fly and research how they fly.
- Learn about the Part 107 Remote Pilot License, what it is and why it's important.
- Read a book about weather patterns.
- Learn the airspace regulations you need to know to fly a sUAS (drone).
- Find a diagram of drone. Identify the types of controls on a drone and what they do (yaw, pitch, roll, etc).
- Learn 3-5 different ways drones are used today.
- Create and launch a rocket. (Look up alka seltzer rockets for ideas)
- Research 3 colleges or universities that highlight aviation
(aerospace engineering, aviation and aerodynamics, Air Traffic Management, Aviation Technology, Physics, Chemistry, Etc.)



Resources Links & Recommendations

Historical Book Recommendations

- **Amelia: My First Amelia Earhart (Little People, Big Dreams) By: Isabel Sanchez Vegara**
- **Daredevil: The Daring Life of Betty Skelton By: Meghan McCarthy**
- **Fly, Girl, Fly! Shaesta Waiv Soars around the world By: Nancy Roe Pimm**
- **Fly High! The Story of Bessie Coleman By: Louise Borden & Mary Kay Kroeger**
- **Skyward: The Story of Female Pilots in WWII By: Sally Deng**
- **Women Aviation: 26 Stories of Pioneer Flights, Daring Missions, and Record-Setting Journeys By: Karen Bush Gibson**
- **A WASP Among Eagles: A Women Military Test Pilot in World War II By: Ann B. Carl**

Historical Movies or Documentary Recommendations

- **Fly like a Girl (2020)**
- **Hidden Figures (2016)**
- **Women in Motion (2021)**
- **Hearts Above Clouds (2022)**
- **Makers: Women Who Make America – Women in Space (2014)**



Resources Links & Recommendations

Fictional Books and Movies

- Around the World in 80 Days By Jules Verne
- Around the Moon By: Jules Verne
- The Calculating Stars by Mary Robinette Kowal
- Drones, Drones, Drones Everywhere BY: Ashlee Cooper
- October Sky (1999)
- Castle In the Sky (1986)
- Planes (2013)
- Star Wars (1980)
- Star Trek: The original series (1966)
- Top Gun (1986)
- Wall-E (2008)
- The Magic School Bus (1995) – Taking Flight Season 2 Episode 9 and Book

Aviation Companies

- Skydio
- Boeing
- Volatus Aerospace
- DJI
- Skyviper
- American Airlines
- Raytheon
- Lockheed Martin



Resources Links & Recommendations

Skydio

- <https://www.skydio.com/>
- <https://www.skydio.com/history>
- <https://www.skydio.com/resources>
- <https://www.skydio.com/youth-stem-education>
- <https://www.youtube.com/channel/UCnaPFjG70PhtNqiyYEaOuCO>

Federal Aviation Administration

- <https://www.faa.gov/>
- https://www.faa.gov/uas/getting_started
- https://www.faa.gov/uas/recreational_flyers/knowledge_test_updates
- <https://faadronezone-access.faa.gov/#/>
- https://www.faa.gov/uas/getting_started/where_can_i_fly



Resources Links & Recommendations

IF/THEN Ambassadors

<https://www.ifthenshecan.org/ambassadors/>

- Adriana Bailey, Atmospheric Scientist
- Dana Bolles, Spaceflight Engineer and Advocate for Disabled in STEM
- Miriam Fuchs, Telescope Systems Specialist
- Kelly Korreck, Astrophysicist
- Jenn Makins, Director of STEM Education – Executive Director of Camp Whispering Cedar STEM Center of Excellence with Girl Scouts of Northeast Texas
- Burçin Mutlu-Pakdil – Astrophysicists Postdoctoral Researcher
- Jasmine L Sadler – Rocket Scientists, Dancer, and CEO
- Nikki Sereika – Aircraft Maintenance Technician

Companies that use drones

- Dallas Police Department
- Wing (Google) to deliver Blue Bell Ice Cream
- Texas Parks & Wildlife



Resources Links & Recommendations

NATO PHONETIC ALPHABET

	A alpha	B bravo	C charlie	D delta	E echo	
F foxtrot	G golf	H hotel	I india	J juliett	K kilo	L lima
M mike	N november	O oscar	P papa	Q quebec	R romeo	S sierra
T tango	U uniform	V victor	W whiskey	X xray	Y yankee	Z zulu

