

Scout: _____

Council: _____

District: _____

Troop: _____

Counselor: Jack Gainer

PA Dutch Council

Horseshoe Trail District

Troop 477

Start Date: _____

Completion Date: _____

☐ Blue-card**Find out about three Aviation Career Opportunities**

Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.

1

2

3

For this exercise, you may not use Airline Pilot.

☐ MBC _____**1. Do all of the following**

a. Define "Aircraft". Describe some kinds and uses of Aircraft today. Explain the operation of Piston, Turboprop and Jet engine.

☐ MBC _____

b. Point out on a model airplane the 4 forces that act on an airplane in flight.

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☐ MBC _____

c. Explain how an airfoil generates lift, how the primary flight control surfaces (ailerons, elevators and rudder) affect the airplanes attitude, and how a propeller generates lift.

☐ MBC _____

d. Demonstrate how the control surfaces of an airplane are used for takeoff, straight climb, level turn, climbing turn, descending turn, straight descent and landing.

☐ MBC _____

e. Explain the following: The Recreational Pilot and the Private Pilot certificates; the instrument rating

☐ MBC _____

2. Do two of the following

2b. Perform a Preflight.	Model	Tail#	<input type="checkbox"/> MBC _____
c. Learn how to read an aeronautical chart. Measure a true course on the chart. Correct for magnetic variation, compass deviation, and wind drift. Arrive at a Heading.	TC: CD:	MV: WD:	<input type="checkbox"/> MBC _____
f. Explain the purpose and functions of the various instruments found in a typical single-engine aircraft.	Attitude Indicator, Heading Indicator, Altimeter, Airspeed Indicator, Turn Coordinator, Vertical Speed Indicator, Compass, Tachometer, Oil Pressure Gauge, Oil Temp Gauge, GPS, VOR <input type="checkbox"/> MBC _____		
g. Create an original poster of an aircraft instrument panel.	<input type="checkbox"/> MBC _____		
Note: Aviation Merrit Badge requirement items 2a, 2b, 2d, and 2e are not used in a group session.			

3. Build a model FPG-9

b. Organize a competition to test the precision of flight and landing of the models.	Longest Spiral	Boomerang Barrel Roll	Loop <input type="checkbox"/> MBC _____
Judge and record your models' abilities to do the following: Longest straight and level flight; Closest 180 turn that arrives back at your feet; A complete a loop; Most turns in a spiral; Complete barrel roll. Note: Aviation Merit Badge requirement items 3a is not used in a group session.			

4. Do one of the following

a. Visit an airport; report on how the facilities are used, how runways are numbered and how runways are determined to be "active".	<input type="checkbox"/> MBC _____
b. Visit an FAA facility. Report on the operation and impressions of the facility.	<input type="checkbox"/> MBC _____
c. Visit an aviation museum or attend an air show. Report your impressions of the museum or show.	<input type="checkbox"/> MBC _____