

SAINTS GLOBAL MEMBER

NAME:

BATTALION:

TROOP:

SKILL BADGE ADVISOR

NAME:

EMAIL:

PHONE:

STEP 1 | DISCOVER

INITIALS

- a) Explain the likely hazards of astronomy activities (night travel, weather, wildlife, dehydration, equipment hazards) and describe how you will prevent and respond to them. _____
- b) Demonstrate first aid knowledge for observation-related risks (heat/cold reactions, dehydration, bites/stings, and eye injury), and explain proper clothing and precautions for night and cold-weather observing. _____
- c) Explain what light pollution is, how it affects astronomy, and describe one practical action you can take to protect or improve the night sky in your community. _____
- d) Explain how to observe the Sun safely (including eclipses) and demonstrate correct solar-safety rules and equipment boundaries. _____

STEP 2 | PLAN

INITIALS

- a) Explain why binoculars and telescopes are important tools, compare at least two telescope types (including one non-optical wavelength telescope conceptually), and describe the purpose of three common telescope accessories or instruments. _____
- b) Prepare an observation plan that lists target objects, tools to be used (naked eye/binoculars/telescope/app/chart), and the safety and setup steps for the session. _____
- b.1) List at least 10 targets spanning at least three categories (constellations/stars/Moon/planets/deep-sky/satellites) _____
- b.2) Identify how each target will be located (chart/app/star-hop/finder) _____
- b.3) Describe site selection and light discipline _____
- b.4) List setup, alignment, and shutdown steps for your equipment _____

- c) List the five most visible planets and explain which can show phases like the Moon and why; describe how planets move across the sky including retrograde motion at a high level. _____

STEP 3 | ACT

INITIALS

- a) Under the natural night sky, identify 10 constellations (including at least four zodiac constellations) and eight conspicuous stars (including at least five of magnitude ~1 or brighter) and show them to a leader. _____
- b) Make two direct-observation sketches of the Big Dipper or Cassiopeia showing orientation change, including the North Star and the horizon. _____
- b.1) Create two sketches from direct observation at different times _____
- b.2) Label North Star and horizon features _____
- b.3) Explain why the pattern appears to rotate _____
- c) Observe one planet and describe what you saw, including color, brightness, steadiness, and any visible phase or disk (if equipment allows). _____
- d) Create a 12-month evening-sky visibility chart for the five visible planets using approved resources, and explain how you decided what 'observable' means for your location. _____
- e) Sketch the Moon and label five maria (seas) and five craters from observation, then explain how the Moon's phases and eclipses relate to Sun–Earth–Moon positions. _____
- e.1) Produce a labeled Moon sketch based on observation _____
- e.2) Make four separate observations of the Moon's phase and position and sketch each with horizon landmarks _____
- e.3) Explain new/quarters/full and how lunar vs solar eclipses occur _____
- f) Explain the Sun's composition and how it compares to other stars, define sunspots, and identify one red, one blue, and one yellow star (other than the Sun) and explain what the colors mean. _____

g) Complete one outreach or extended observing option: host a star party, assist a public star party, visit an observatory/planetarium and report, complete an extended observation session beyond the basics, or produce a labeled image series of celestial motion. _____

g.1) Choose one option with leader approval and explain your plan beforehand _____

g.2) Demonstrate or present at least 10 additional objects or a labeled motion series/report _____

g.3) Explain what worked, what was difficult, and how you kept the activity safe _____

g.4) Teach at least one concept to another person during the activity _____

STEP 4 | REFLECT

INITIALS

a) Explain what the Milky Way is and what we are seeing when we look at it, and describe one way astronomy deepened your sense of wonder and responsibility. _____

b) Identify three astronomy-related career pathways or hobby pathways and describe the training, costs, and next steps for one you might pursue. _____

END OF REQUIREMENTS

BY SIGNING BELOW, I CERTIFY TO THE BEST OF MY KNOWLEDGE THAT ALL REQUIREMENTS WERE MET AT OR ABOVE THE REQUIRED STANDARDS AS OUTLINED IN THE BADGE REQUIREMENTS CHECKLIST.

SKILL BADGE ADVISOR

DATE