

# Beyond Polaris Observing Certificate Checklist

Send the completed checklist to the Coordinator:

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Your Name: \_\_\_\_\_

Your Address: \_\_\_\_\_

Your Email Address: \_\_\_\_\_

Your Telephone Number: \_\_\_\_\_

Your Astronomy Club: \_\_\_\_\_

Send certificate to: \_\_\_\_\_ you, or \_\_\_\_\_ your club's Awards Coordinator?

Name of Coordinator: \_\_\_\_\_

Coordinator's Address: \_\_\_\_\_

## **REQUIREMENTS:** (Check box on left and enter date and time when completed.)

| <input checked="" type="checkbox"/> |  | <u>Date</u> | <u>Time</u> |
|-------------------------------------|--|-------------|-------------|
| [ ]                                 | A. Basic Background Information  |             |             |
| [ ]                                 | 1. Keep a log including notes of each requirement (observations and new knowledge).            | _____       | _____       |
| [ ]                                 | 2. Understand Star Party Etiquette & create your own Sky Kit (things to take to a star party): | _____       | _____       |
| [ ]                                 | 3. Tell 2 mythical constellation stories.  | _____       | _____       |
| [ ]                                 | 4. Research the Milky Way Galaxy, and what it should look like in the night sky.               | _____       | _____       |



Date

Time

- |     |  |       |       |
|-----|--|-------|-------|
| [ ] | 5. Draw a sketch of the solar system identifying the planets:                          | _____ | _____ |
| [ ] | 6. Learn a unique characteristic about each planet:                                    | _____ | _____ |
| [ ] | 7. Explain the difference between an asterism and a constellation:                     | _____ | _____ |
| [ ] | 8. Explain Binary Stars and Star Clusters (open and globular):                         | _____ | _____ |
| [ ] | 9. What is the meaning of circumpolar?   | _____ | _____ |
| [ ] | 10. What is the Messier Catalog? Who was Messier and how many objects are in the list? | _____ | _____ |
| [ ] | 11. What is a Nebula? (Emission and Reflection)  | _____ | _____ |

**B. Looking at Stars & Constellations**

- |     |   |       |       |
|-----|---|-------|-------|
| [ ] | 1. Draw by freehand 15 Constellations:  | _____ | _____ |
| [ ] | 2. Locate and identify three constellations (Ursa Major, Ursa Minor, Cassiopeia, Leo, Orion, The Southern Cross, Cygnus, or others):                                    | _____ | _____ |
| [ ] | 3. Locate and identify the North Star/Polaris using other constellations (Ursa Major, Cassiopeia, The Summer Triangle, or Orion):                                       | _____ | _____ |
| [ ] | 4. Locate two planets in the night sky.   | _____ | _____ |
| [ ] | 5. Demonstrate use of a Planisphere.  | _____ | _____ |
| [ ] | 6. Identify Major Stars and Objects in 15 constellations.   | _____ | _____ |
| [ ] | 7. Observe 1 deep space objects with the naked eye (M45 – the Pleiades, The Hyades in Taurus, M42 – the Orion Nebula, M44 – the Beehive in Cancer, M41 in Canis Major). | _____ | _____ |

**C. The Moon**

- |     |   |       |       |
|-----|---|-------|-------|
| [ ] | 1. Sketch the seven phases of the moon. | _____ | _____ |
| [ ] | 2. Identify three Moon Maria (seas).    | _____ | _____ |



Date

Time

- [ ] 3. Sketch the Man, the Rabbit, and the Woman in the Moon. \_\_\_\_\_
- [ ] 4. Explain Lunar and Solar Eclipses and draw a diagram. \_\_\_\_\_
- [ ] 5. What is definition of the Terminator (on the Moon)? \_\_\_\_\_

D. Meteor Showers, Shooting Stars, Falling Stars, Zingers

- [ ] 1. Understand the definitions and the difference between Meteoroids, Meteors, and Meteorites. \_\_\_\_\_
- [ ] 2. Identify 3 major Meteor Showers and the dates when they occur. \_\_\_\_\_

E. Protecting our Dark Skies

- [ ] 1. Evaluate your personal property related to reducing Light Pollution. \_\_\_\_\_
- [ ] 2. Learn about Watts, Lumens and Kelvin (color) of light bulbs. \_\_\_\_\_
- [ ] 3. Educate others on the importance of proper and appropriate outdoor lighting. Include the value of Dark Skies and proper lighting to cost savings, wildlife, human health and enjoyment of the sky. \_\_\_\_\_

F. Future Planning:

- [ ] 1. Document in your log information about the next star party which you plan to attend. \_\_\_\_\_
- [ ] 2. Review the Astronomical League Observing Programs. \_\_\_\_\_