

## ASTRONOMER BADGE



### How to earn your badge...

1. Show what you know about the night sky and why the pattern of stars changes, night by night, throughout the year.
2. Learn the meaning of the terms celestial, equator, poles, circumpolar and zodiac.
3. Build a model of the solar system using everyday materials found in the home, such as different size fruit or sports balls. Use an outside area to scale the solar system.
4. Explain how the Moon affects the tides.
5. Build a telescope from two cardboard tubes or two A4 pieces of black card, and lenses. Compare what you can see through a telescope and what you can see with the naked eye.
6. Observe three constellations on a clear night and record what you saw.
7. Read a star map using a compass and red light. Compare the differences between using a star map and a normal map.
8. Learn how to identify a satellite. How do you tell it apart from an aeroplane, star, planet or a meteor? Then complete these activities:
  - a) identify a satellite to observe
  - b) choose a clear night and use a clock and a compass to help you observe the satellite
  - c) plan an evening with your Scout Group and teach others how to observe the satellite

**Scout use only: (tick when completed, for your records only)**

| No. 1 | No. 2 | No. 3 | No. 4 | No. 5 | No. 6 | No. 7 | No.8 |
|-------|-------|-------|-------|-------|-------|-------|------|
|       |       |       |       |       |       |       |      |