Citizen Science Measuring Light in the Night Sky Kit

Materials:

- Sky Quality Meter (1)
- Red LED flashlight (3)
- Data sheets & clipboards (12)
- Dry erase markers (12)
- Star Finder (12)
- How to Use SciStarter Guide (1)

Step 1: Visit the Volunteer Toolkit and choose the Think Like a Citizen Scientist Journey.

Step 2: Review the SciStarter Guide in your kit. Follow the instructions to set up a SciStarter account and begin viewing projects to choose from with your troop.

Step 3: Pick a project to complete with your kit. Options that work well for this kit include: Globe at Night or Stellar Classification Online Public Exploration (SCOPE). Other projects may work as well, so make the decision as a troop. Review all the videos and resources linked to your project in SciStarter.

Step 4: Share your SciStarter link with girls and start collecting data in SciStarter or via the website for the project you are working on. It is optional to have girls/guardians use a computer to have a SciStarter account. Troop leaders can submit manual entries instead if girls/guardians do not have access to SciStarter.

Step 5: Take your kit outside and get started collecting data. Choose a night when the moon is not up. Note the serial number listed on the back of the Sky Quality Meter (SQM). You'll need this when inputting your data later. Go outside more than an hour after sunset and bring the SQM with you. The red LED flashlight protects your night vision while navigating in the dark. Position the SQM so the sensor/faceplate points toward the sky. Press the red button once and release. Under the darkest of conditions, the SQM may take up to a minute to complete its measurement. Take note of the measurement reading.

* **Sky Quality Meter Serial Number Directions:** The serial number is needed when submitting a reading from the Sky Quality Meter (SQM) for the Globe at Night project. Use these directions to obtain the serial number for the SQM you offer your community in the Measuring Light in the Night Citizen Science kit. To provide easy serial number access, write the number in the Activity Guide and on the SQM. The serial number is accessed through the display of the unit. Here are the instructions for getting that: The temperature in degrees Celsius then degrees Fahrenheit are displayed when you press and hold the button a second time. Also, the model and serial numbers are displayed after the temperature. For example, press and release the button once. While the display is still showing something, press and hold the button and watch the following results:
1. Temperature in degrees Celsius. This is the temperature inside the unit, not the outside temperature.
2. Temperature in degrees Fahrenheit. This is the temperature inside the unit, not the outside temperature.
3. Model number, like _2.17. Model 1.xx is the SQM, Model 2.xx is the SQM-L. The last two digits are the firmware revision.
4. Serial number, like 3647. Model _2.19/_1.19 and greater use hexadecimal numbers, for example serial number 001C hex = 0028 decimal.

Sky Quality Meter FAQ: http://unihedron.com/projects/darksky/faqsqm.php

Step 6: Collect data and submit on SciStarter or the project website you are working with.

Thank you for participating in Citizen Science! Want to do more? Go to your dashboard on SciStarter.org to find a similar project like the ones below or try an entirely different kind of project!