

## DIY SCI: Solar Lantern

### What is it?

Did you know that the sun produces 173,000 terawatts? That's 10,000x more power than Earth's current population uses! LEDs use less electricity than regular light bulbs and they last a lot longer too.

The solar power that lights up the LEDs is made possible by solar cells and photons that create clean energy. What are these things? Well, solar cells are semiconductors that absorb photons. Particles of light energy, also known as photons, are found in sun rays that are then captured by the solar cells. The solar cells turn the photons into useable electricity. Since this electricity is made from the sun, it is considered clean energy because it does not pollute our environment.

### What you need

- Mason jar
- [Mason jar lid with solar-powered LEDs](#)
- Decorative craft supplies
  - Ex. stickers, pom-poms, ribbon, figurines

### How to make it:

- Decorate inside of jar!
- Twist the the solar powered LED lid on to the jar
  - Make sure it's turned on!
- Let the solar cells capture the sunlight by placing it in a sunny spot
- Watch the LEDs light up as they are powered by clean energy!



### What do you notice?

- What happens when you cover the solar panel? Why do you think that is?
- What happens if the lantern is placed in direct sunlight vs. light from a light bulb?

