

Constellation Light Box

Throughout the centuries, people have looked to the stars to navigate across open oceans or featureless deserts, know when to plant and harvest, and preserve their myths and folklore. To make it easier to 'read' the stars, they grouped the brighter stars into readily recognizable shapes known as constellations. Recycle a cereal box into a light box with your favorite zodiac constellation!

TEKS:

2.8 Earth and space. The student knows that there are recognizable patterns in the natural world and among objects in the sky. The student is expected to:

(D) observe, describe, and record patterns of objects in the sky, including the appearance of the Moon.

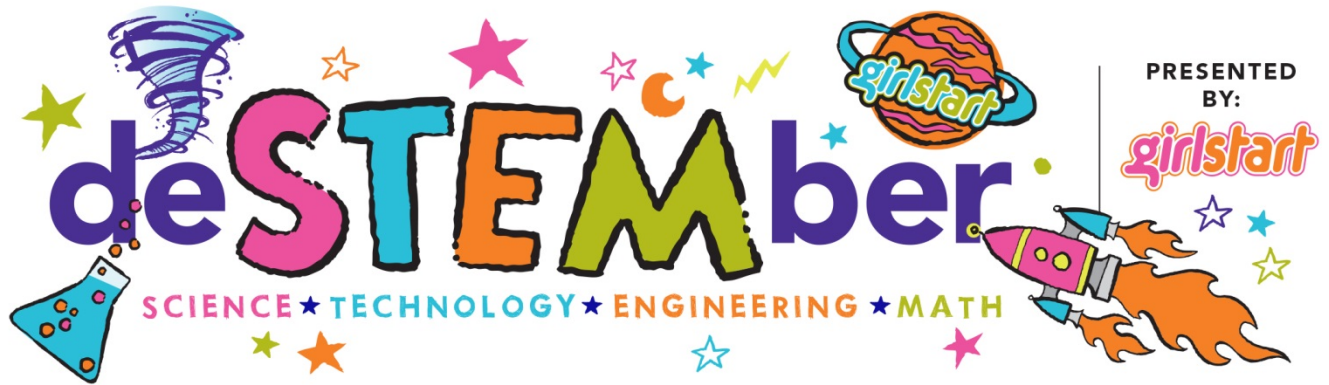
Materials:

- 10-bulb LED light strands (should be readily available at dollar store)
- Empty cereal box
- Picture of your chosen constellation
- Reamer/hole punch
- Acrylic paint: light blue, dark blue, and dark green (dark colors work best)
- Brush
- Palette (a bottle cap works well)
- White felt-tip pen
- Painters tape
- Glue
- Wall sticker (optional)

How To:

1. Open up the cereal box carefully. Mix the colors as you like and paint the inside all over. Don't use water, just the paint. Let it dry. *Tip: Sunlight or hairdryer will speed up the drying process.*
2. Mark and draw the constellation on the cereal box. Also add extra nearby stars.
3. Punch holes in every marked star.
4. From the unpainted backside, poke the LED lights through the holes of the main constellation only. Tape the electric cord to the inside of the box, leaving the plug end trailing out.
5. Close the cereal box with the string lights inside and glue the two sides. Let it dry.
6. Put it on a shelf or hang it on the wall, as you like. It's time to turn down the lights and watch the stars!

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How Does It Work?

Constellations are groups of stars in the night sky. Throughout human history, people have looked at groups of stars and associated them with images and stories. Many well-known constellations can be identified because of their similarity in shape to people, animals, and objects. By choosing your favorite constellation and creating a light box, you will be able to enjoy the night sky all year long.

Career Connection:

Astronomer: Astronomers study planets, moons, stars, galaxies, meteors, comets and their interactions with each other. They must have an in-depth knowledge of physics in order to understand how forces such as gravity change throughout space. Astronomers work together sharing their knowledge in order to better understand how the universe works at microscopic and macroscopic levels.

Resources:

- <http://www.handmadecharlotte.com/diy-constellation-light-box/>
- <http://www.physics.csbsju.edu/astro/asp/constellation.faq.html>
- http://www.brainpop.com/science/space/constellations/qanda_popup.weml?qanda_id=3957&character=Tim&character_id=1



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