

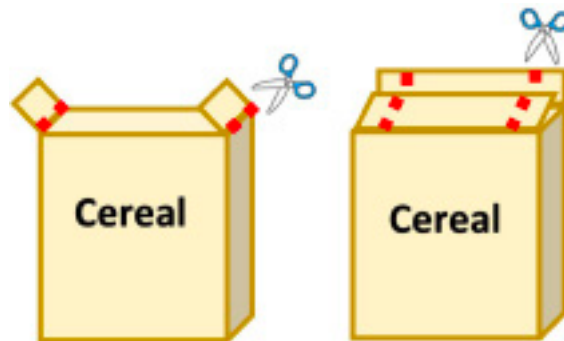
Cereal Box Solar Viewer

Collect:

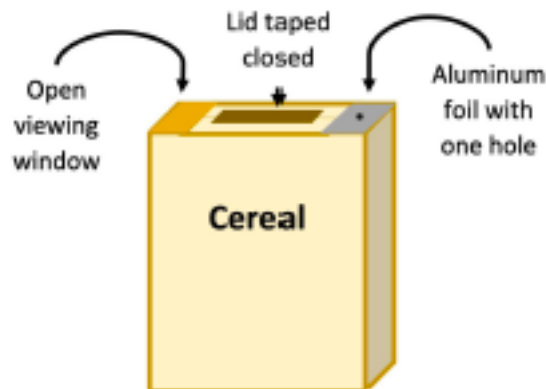
- Cereal box
- Aluminum foil
- Scissors
- Pushpin
- Ruler
- Pencil Tape

Make the solar viewer.

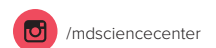
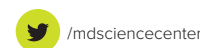
1. Use scissors to cut off the two small tabs from the lid.
2. Use a ruler and a pencil to mark off one inch from both ends of the two larger tabs. Remove these pieces using scissors.



3. Fold the remainder of the two larger tabs down to “close” the lid and secure it with tape.
4. Cover one opening with a piece of aluminum foil. Secure with tape so there are no gaps. Use the pushpin to make one hole in the middle of the foil.



Let's science



Take a safe look at the sun.

1. Head outdoors on a sunny day. Find the sun and turn your back to it. Hold the box so the edge with the hole is pointing toward the sun.
2. Bring the edge of the box with the viewing window to your face.
3. Look through the viewing window towards the far narrow edge of the box, opposite the pinhole, to observe the sun. The sun will appear as a bright spot of light on the narrow part of the box.

Hint: *It may take some maneuvering until you have the box and your eye at the correct angle.*

Safety tips!

- Never look at the sun directly without protective eye gear. Even sunglasses cannot protect your eyes from the damage caused by the sun's rays.
- Always keep your back toward the sun while looking at the pinhole projection.
- Do not look at the sun through the pinhole.

How does it work?

The sun's light rays travel in a straight line. When the rays hit the pinhole in the aluminum foil, only a very small amount of light is able to pass through. Inside the dark box, a small image of the sun appears. A cereal box solar viewer is a safe way to view the sun any day of the year—including during a solar eclipse! A solar eclipse occurs when the moon blocks any part of the sun. **The next two solar eclipses will occur on October 14, 2023 and April 8, 2024.**