



# Pinhole Eclipse Projector



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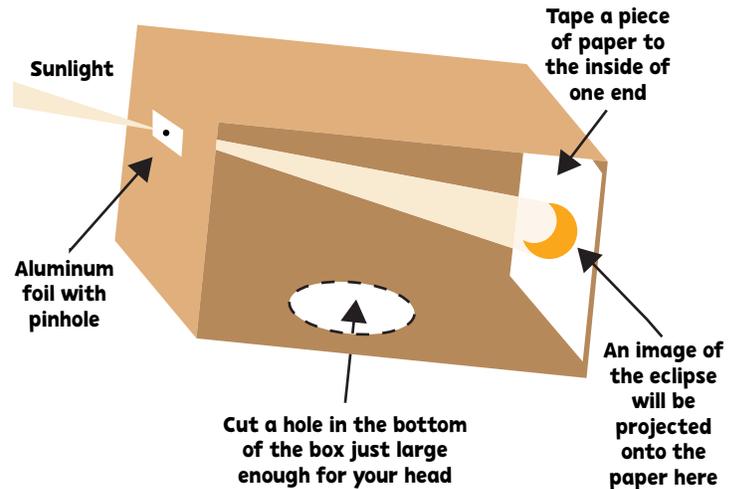
A simple and safe way to watch a solar eclipse is with a box pinhole projector.

## ITEMS NEEDED

- A long cardboard box. The longer the box, the larger the projected image. You can tape two boxes together to make a longer box.
- Scissors
- A sharp knife or utility blade (used by an adult)
- Duct tape
- Aluminum foil
- Pin or thumbtack (used by an adult)
- A sheet of white paper

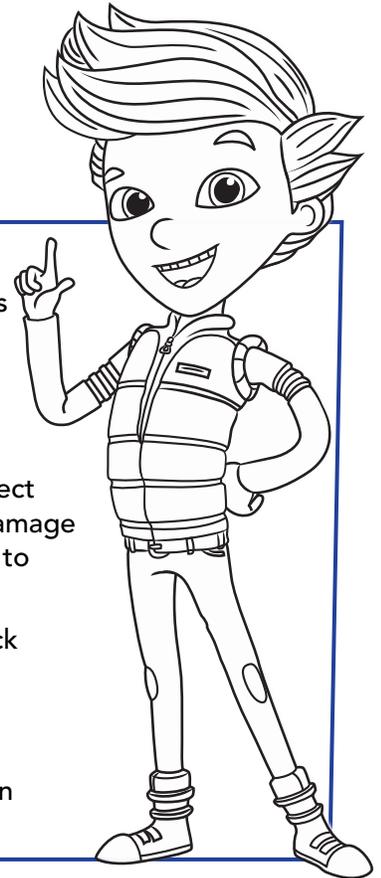
## EXCELSIOR! LET'S HAVE FUN!

1. An adult should use the sharp knife to cut a small rectangular hole at one end of the box, near the top. Then, they should cut a second hole on the bottom of the box, just large enough to insert a person's head.
2. Using the scissors, cut out a piece of aluminum foil slightly larger than the rectangular hole. Make sure the foil is completely flat and not crinkled.
3. Tape the foil over the rectangular hole by placing duct tape around the edges of the foil rectangle.
4. An adult should use the pin or thumbtack to poke a tiny hole in the center of the foil.
5. Tape the sheet of paper on the inside of the box, opposite the side with the pinhole.
6. To use your viewer, stand with your back to the Sun. Place the box over your head with the pinhole behind you pointed toward the Sun. Adjust your position until you see a small projection, a negative image, of the eclipsed Sun on the paper in front of you inside the box.



## SAFETY FIRST!

- An adult should help with the sharp objects used in this activity.
- **Never look at the Sun directly without protective eye gear.** Sunglasses can't protect your eyes from the damage the Sun's rays can do to them.
- Always keep your back toward the Sun while looking at a pinhole projection.
- Do not look at the Sun through the pinhole.



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