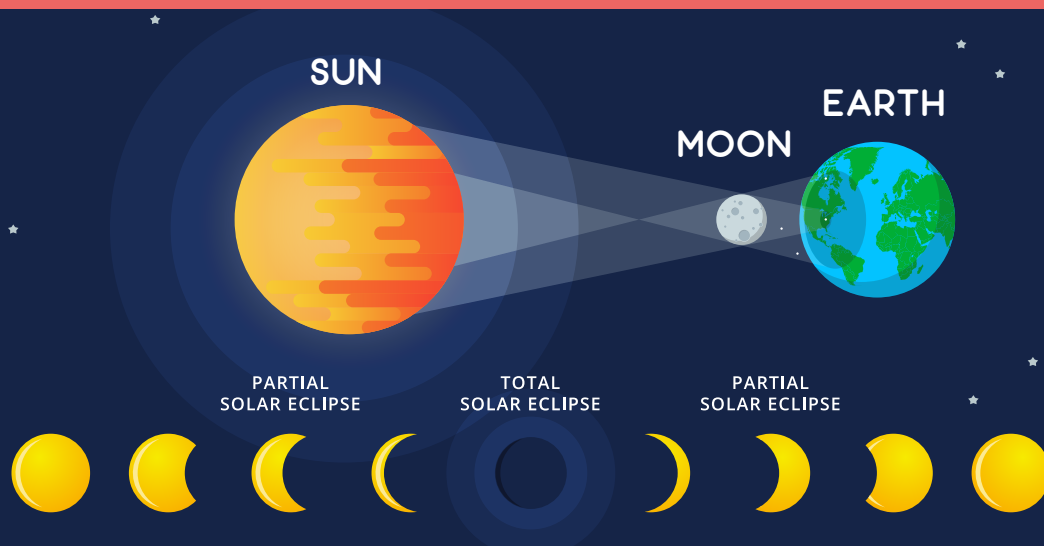


HOW TO MAKE AN ECLIPSE PINHOLE VIEWER



A solar eclipse is a super special event that happens in space when the moon moves in front of the sun. To view most phases of a solar eclipse safely, you need special ISO-certified solar viewers—or you can view the eclipse indirectly with a device such as a pinhole viewer. Follow the instructions below to create your own pinhole viewer out of a cereal box!

You can also watch a video of these instructions on Arkansas PBS:

myarpbs.org/pinholeviewer



Materials

- Cereal box
- Aluminum foil
- Scissors
- White paper
- Tape
- Pushpin or thumbtack

If you don't have the materials above, please refer to the table at the end of this document for a list of alternative materials.

Safety Note

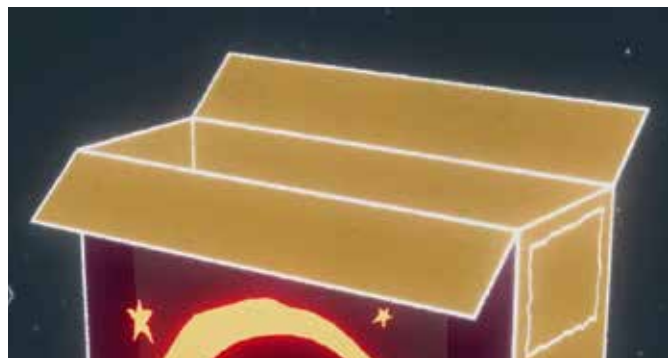
Remember, if you are in the path of totality for a total eclipse, the only safe time to look directly at the eclipse without ISO-certified solar viewers is **during totality**, when the moon is completely covering the sun. For annular eclipses or for any partial phases of an eclipse, make sure to use certified solar viewers or an indirect method for observing the eclipse—like this pinhole viewer!

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Directions

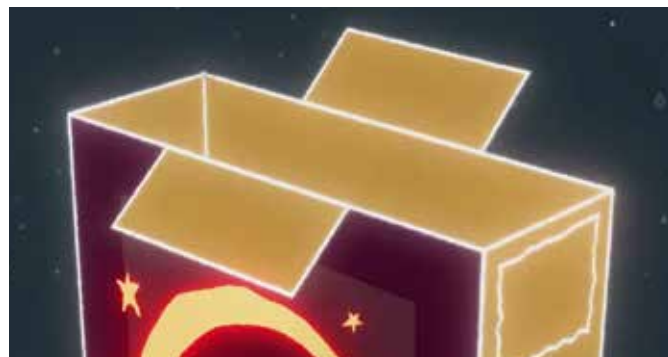
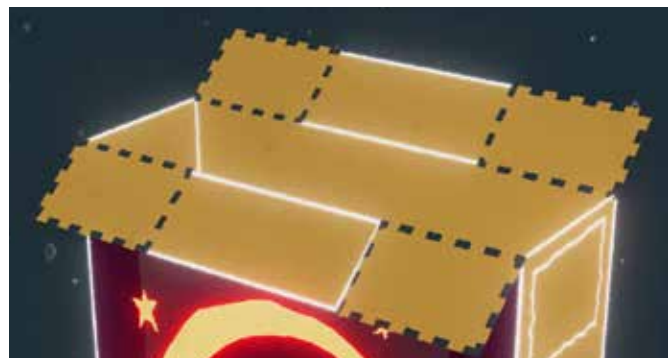
1

Open the flaps at the top of the box. Cut off (or tape down to the outside of the box) the smaller flaps on the short sides of the box so they are out of the way.



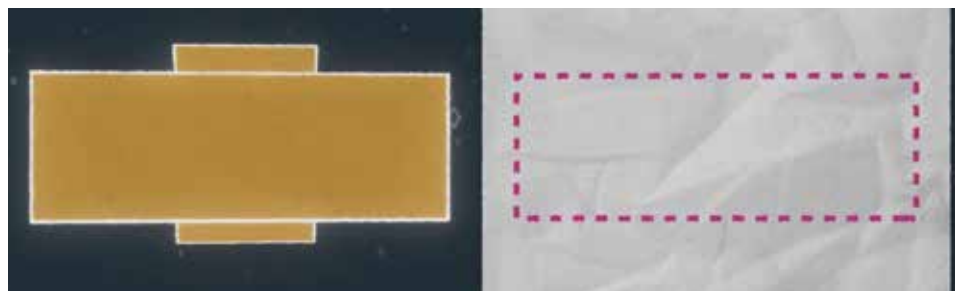
2

Now, use scissors to cut off the ends of the two remaining flaps, leaving two smaller, rectangular flaps in the center.



3

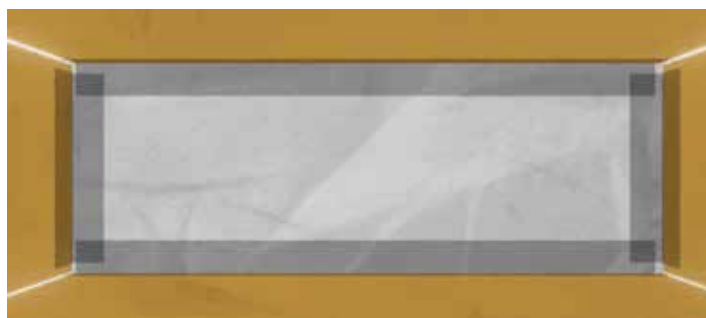
Cut a white piece of paper to match the size of the bottom of the box..



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4

Tape that piece of white paper **inside** the bottom of the box. Make sure the paper is very secure and cannot move around.



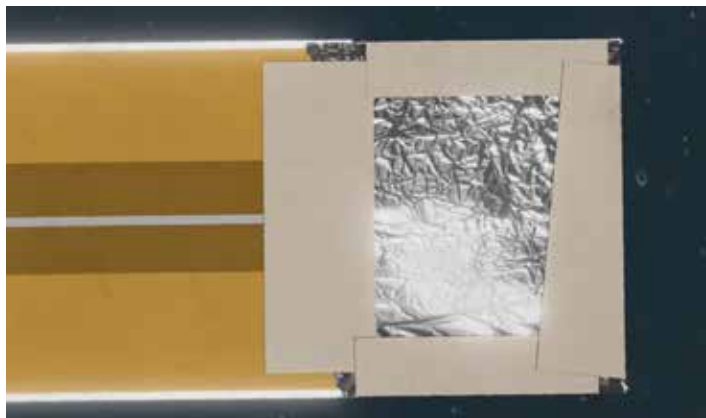
5

Tape the two flaps together at the top of the box.



6

Tape aluminum foil to one of the open sides on the top of the box.



7

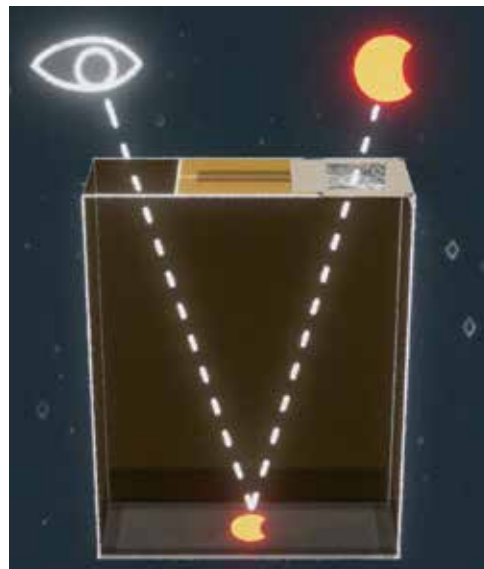
Using a pushpin or thumbtack, poke a tiny hole through the center of the foil. Make sure the hole isn't too big!



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8

Leave the other side of the top of the box open. This will be the area you look through to see the eclipse.



9

Face away from the eclipse to view it through your pinhole viewer safely!

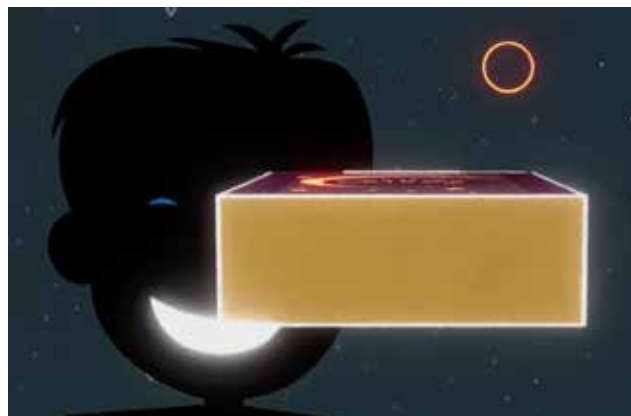


Table of Alternative Materials

Original Material	Alternative Materials
Cereal box	Similar shaped box such as a cookie or cracker box
Tape	Glue or other similar adhesive
Aluminum foil	Duct tape, thin cardboard, or other dark and thin material that is easy to puncture with a pushpin or thumbtack
White paper	Toilet paper, tissue, or other flat, white material
Pushpin or thumbtack	Paper clip or sharp pencil

Sources

This activity was inspired by NASA's instructions for creating a cereal box viewer. science.nasa.gov/resource/eclipse-cereal-box-viewer/

Additional Resources

For more eclipse resources, please visit myarpbs.org/eclipse.