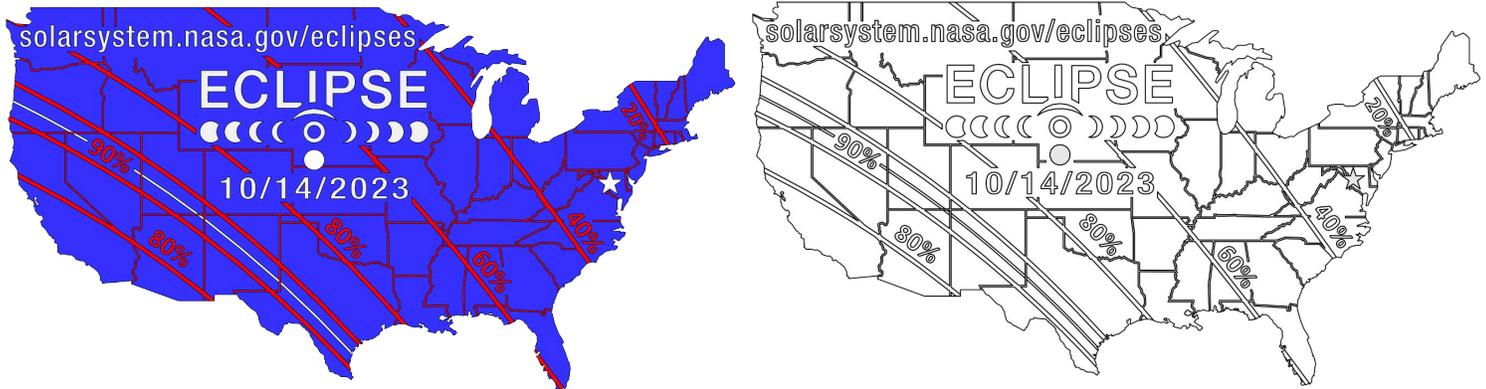




2023 Annular Solar Eclipse - USA Map - NASA Pinhole Projector



Get ready for the annular solar eclipse on Saturday, October 14, 2023! Everyone in the 48 contiguous United States will be treated to a PARTIAL solar eclipse. The percentage of the Sun that is covered by the Moon's shadow depends on your location on the map. Observers along the "90%" line of the map will experience an ANNULAR solar eclipse. Celebrate this solar eclipse safely by making either your own 2D paper cut or 3D printed pinhole projector.

Included Files:

- **Activity Directions** (2023 Annular Solar Eclipse - Pinhole Projector Activity.PDF)
- **2D Paper Cut File** (2023 Annular Solar Eclipse - USA Map - NASA 2D Pinhole Projector.PDF)
- **2D Paper Cut File with Pinhole Size** (2023 Annular Solar Eclipse - USA Map - NASA 2D Pinhole Projector - w5mm.PDF)
- **Pinhole Projector Image** (2023 Annular Solar Eclipse - USA Map - NASA 3D Pinhole Projector - Image.JPG)
- **3D Print File** (2023 Annular Solar Eclipse - USA Map - NASA 3D Pinhole Projector.STL)
- **1-Pager** (Pinhole Projector - One Pager.pdf)

Tech/Materials:

- For 3D Printed US Eclipse Map:
 - 3D Slicer Software
 - 3D Printer
 - Filament (1-3 colors)
- For 2D Paper Cut US Eclipse Map:
 - Paper/Cardstock
 - Printer
 - Scissors
 - Hole Puncher
 - Different Shape Hole Puncher
 - Optional: Die Cut Machine (Cameo, Silhouette, etc.)

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