



Virtual STEAM

Science

UV Sunglasses Challenge

Goal: I can observe how light travels through different materials.

Science Indicator: SC.1.2.1.C Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.

Materials:

- 10 - UV Beads
- 1 - Sunglasses
- ¼ Sheet of Wax Paper
- ¼ Sheet of Foil
- ¼ Sheet of White paper
- 1 - 4x4 Tissue paper
- 1 - 4x4 Felt square
- 20 - Address Labels / Tape
- Silver Jewelry Box (Remove the cotton)



Book Extension:

[Sun](#)
by Steve Tomecek

1. Watch YouTube Video for background knowledge:
<https://youtu.be/fZIFAM9j7G4>



2. On a sheet of paper, draw and label your sunglasses experiment and materials. The small box will hold the UV beads and be covered with the different items to test how much light will travel through. It may be helpful to draw a graph or chart to keep track of the experiment as well.
3. Place UV beads in the silver box. Hint: Do this inside away from the window to prevent them from seeing the sunlight until you are ready.
4. Cover the box with the sunglasses. Hold it tight so no sunlight will go around the sunglasses into the box You can

Instructions:





tape the edges to cover if needed.

5. Take the box outside and set it in the sun for 2 minutes.
6. Take the box inside and immediately open the box.
7. Take note of what colors you see and how bright those colors appear.
8. When completed, cover the box with the wax paper, foil, felt, white paper, and tissue paper one at a time to test.
9. Find other items around your house you could also test.
10. Document the challenge using video, photos, drawings, etc.
11. Have fun!

Extension Activities:

- What happens when you cover the box of beads with black paper vs white paper? Is there any change in the beads after you test them in the sun? Which color of paper allows the beads to absorb more light?

Ignite Our Future Connection:

- **Positivity** - is looking towards the good side of things, having a good attitude. Lessons include training our brains to be more positive so we can always look at the bright side of life.

