



Lesson Logistics

Learning Outcomes

Grades 7-8
Heat
Optics

Class Organization

Divide the class into groups of three or four students for making the pinhole camera, scanning and inverting the final image.

When discussing the results, students can hypothesize theories in groups and then share their responses with the rest of the class.

Ensure that each group has a *Student Handout*.

Notes

A suitable location for the pinhole camera needs to be found. It is important to secure the pinhole camera to a high point that is facing the sun to ensure a clear view of the sun's movement. A classroom window, a roof or balcony are suitable locations. It might be more appropriate for students to build the pinhole cameras, but have the teacher attach them outside.

Further Exploration

Ask the students to brainstorm the possibilities for an aluminum can. Make a mind map or list as a class, with students suggesting different uses. Allow students to be creative and encourage all suggestions, such as recycling cans to build an airplane.