

## Core Skills Analysis

### Science

- The student learned about how light travels and interacts with different surfaces to create images.
- Understanding of how lenses work to focus light to create a clearer image.
- Exploration of the principles of reflection and refraction in the context of creating a projector.
- Engagement with the concept of optics and the role of a pinhole in creating images.

### Tips

For continued development after the activity, students can experiment with different types of lenses to observe how they affect the projected image. Encourage them to explore the relationship between distance, focus, and image clarity by adjusting the position of the lens. Additionally, they can try using different light sources to see how it impacts the brightness and clarity of the projected image.

### Book Recommendations

- [The Magic of a Box: Exploring Light and Shadows](#) by Sarah Johnson: Follow the adventures of a young inventor as she creates her own camera obscura and discovers the magic of light and shadows.
- [Adventures in Optics: Fun with Light and Lenses](#) by Chris Roberts: Join a group of friends as they embark on a journey to explore the wonders of optics, from constructing simple projectors to understanding how our eyes perceive light.
- [Light Play: A Hands-On Guide to Optical Experiments](#) by Emma Thompson: Step into the world of light play with this interactive book that features easy optical experiments for kids to learn about the science behind cameras, projectors, and more.