

Season 3, Episode 8: Magic Day



Learn about optical illusions; take a rhythm challenge. Welcome to CAMP TV—a half-hour day camp experience in your living room! Head counselor Zachary Noah Piser and his new co-counselor, Mia Weinberger, guide “campers” as they learn through play. Content partners include Carnegie Hall, Impossible Science, Liberty Science Center, The Met, National Dance Institute, San Diego Zoo Wildlife Alliance, Valley PBS.



Activity Guide

Homemade Chladni Plate	1
Magic Tube Optical Illusion	2-3
Create an Optical Toy: Thaumatrope	4-5



Camp TV is a production of The WNET Group.

Major funding for *Camp TV* is provided by the Corporation for Public Broadcasting. Additional funding was provided by The Charles and Lucille King Foundation, the New York City Council, the Alice Lawrence Foundation, Pine Tree Foundation of New York, and The Peter G. Peterson and Joan Ganz Cooney Fund.



Homemade Chladni Plate

Materials List:

- aluminum foil
- device to play music
- an open container large enough to hold the music device
- salt

Instructions:

1. Make sure your music device is playing sound or music at the highest volume, then place the device inside the container.



2. Cover the container and the device with aluminum foil. Make sure to wrap the opening completely with the foil, as tightly as possible.



3. Pour some salt onto the aluminum foil and observe the results.





Magic Tube Optical Illusion

Materials List:

- two pieces of paper or cardstock
- tape
- tissues or handkerchiefs

Instructions:

1. Roll a piece of paper into a tube shape and tape it.



2. Roll a second piece of paper into a slightly smaller tube that's a little more cone shaped on the end.



3. Stick the smaller tube inside of the larger tube.



4. Stuff the tissues between the tubes.



5. Now for the magic trick! Make sure to keep the end of the tube with the tissues facing you and show your audience the other side.



6. Show the empty tube. Then say “Shazam!” and remove the tissues! The audience is sure to be impressed with your sleight of hand.





Create an Optical Toy: Thaumatrope

Materials List:

- card stock
- pencil or pen
- roll of masking tape
- plastic lid, or another circular shape to trace
- scissors
- hole punch
- two rubber bands

Instructions:

1. Think about what you want to draw on your thaumatrope. It needs to have two related elements—like a bird and a cage, or a fish and a bowl.

2. Draw a circle on a piece of card stock. You can trace something with a circular shape, like a roll of masking tape or plastic lid.

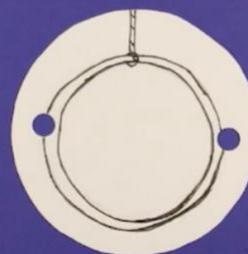
3. Cut out the circle and punch two holes opposite each other and at the edge.



4. Make sure the holes are horizontal. Then, draw an element on one side.



5. Now flip the circle over from bottom to top.

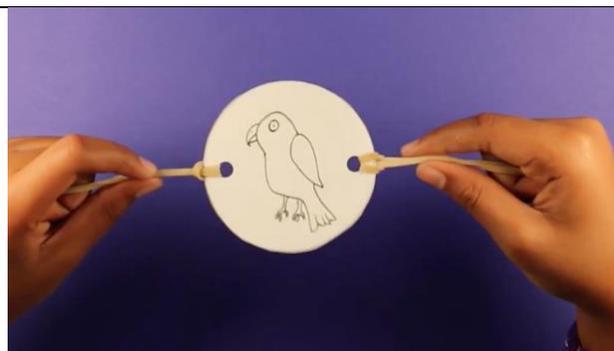


6. Draw the second element on the other side.

7. String a rubber band through one of the holes, and thread one end through the loop at the other end. Repeat on the other side.



8. Pull the rubber bands tight and use your forefingers and thumbs to spin the circle back and forth. Watch your two drawings become one!



Activity courtesy of #MetKids