

Science is something that anyone can cook-up!



<https://www.lsop.colostate.edu/>

You can do science with anything, anywhere, and at any time!



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LITTLE  
SHOP OF  
PHYSICS

about us:



Heather



Cherie



Deb  
absentee : (



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# about us (continued):

Abbie  
Allie  
Bailey  
Cecilia  
Levi  
Shay



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# Team work makes the dream work.

- Form a team of 3-5 people.
  - *For challenge choose people you don't know.*
- Create a team name based on something unique your group has in common.



**Appetizer round!** Challenge our expert science chefs to demonstrate A3 (anywhere, anything, anytime) skills using 2 ingredients from our pantry.

Skateboard platform, leaf blower, stuffed toy,  
PVC tube, slippery tablecloth,  
wood blocks, plastic wine glasses...



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# Signature Dish Recipe: Cup Filters

Ingredients:

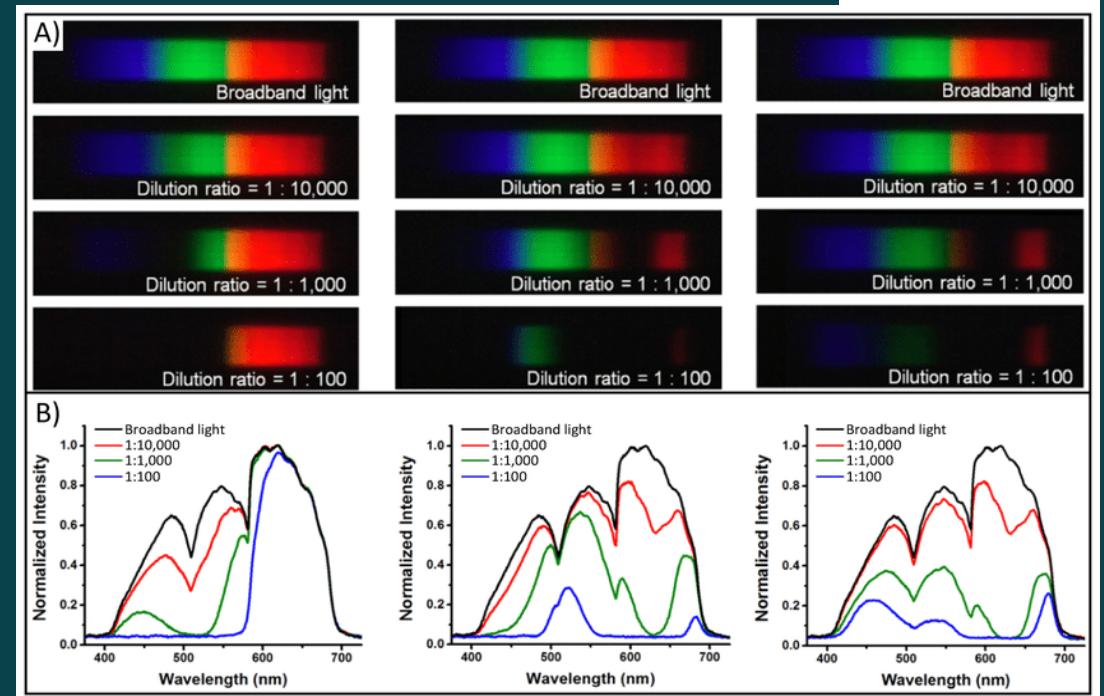
- double-walled cups
- food coloring solutions
- a white light source
- spectroscopy glasses



“Learn more” link:



Spectral absorption of red, green and blue food coloring:



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# Signature Dish Recipe:

## Coherer

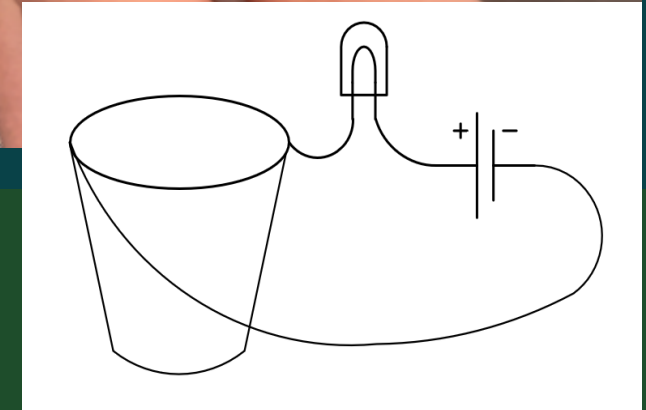
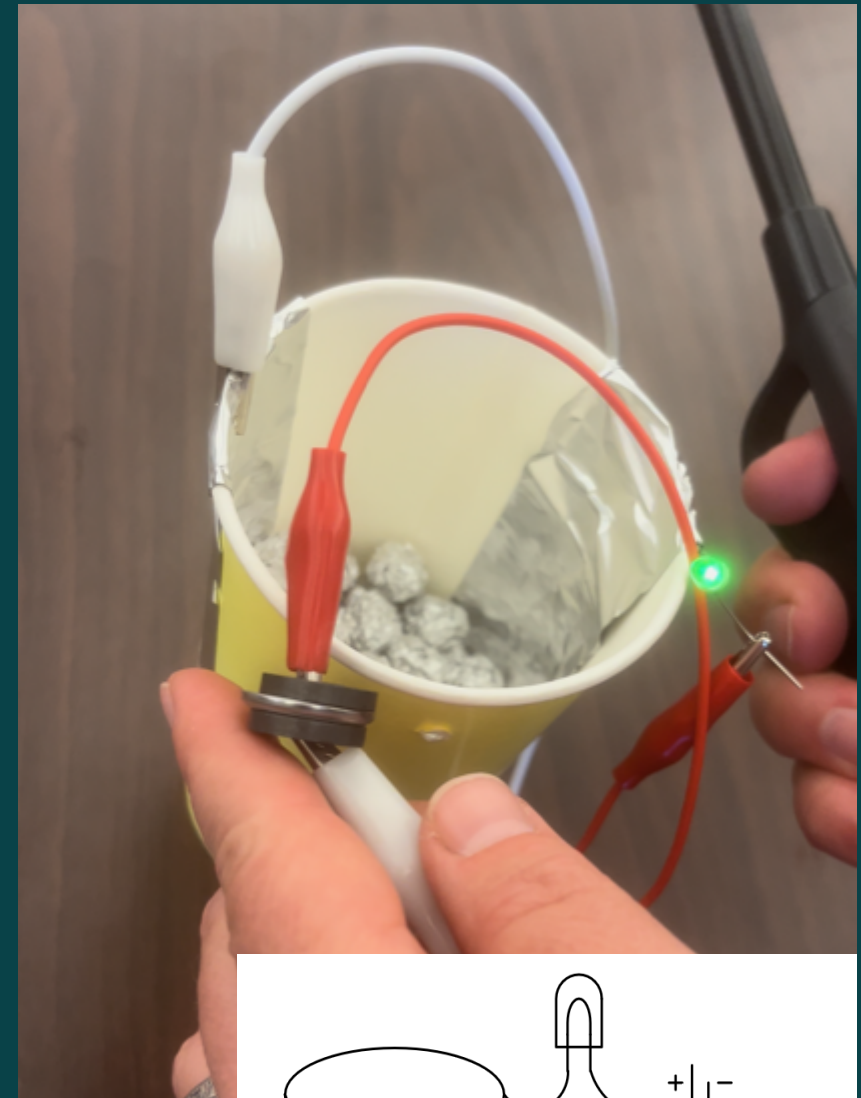
AAPT article by Christopher Chiaverina, (friend of LSOP):

Ingredients:

- aluminum foil
- cup
- LED
- electricity



How-to  
Video:



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# Signature Dish Recipe:

## Writing with electricity

- Ingredients:
- goldenrod paper,
  - salt solution
  - a little electricity

Learn more:

How-to  
Video:

Guided activity & Science



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# Iron Chef Science Challenge!

Now it's time for you to cook up your own recipes.

- Work as a team to use ingredients on your table in creative ways
- Use items from our “pantry”
- Prepare one recipe for the “feedback round”:
  1. name your creation
  2. write down “What to do”
  3. explain “What is happening”



# Example Signs



Name of your team

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## Project Name

Write a pithy sentence to explain what to do.

### What to do:

Write a few sentences explaining what to do. Give a couple of options. Maybe you should end with a question?

### What is happening:

Talk about the physics involved. Our target audience is the general population.

### Up-cycled Materials:

- List of materials used that are recycled



Tie Dyed Physicist!

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## Magnaccordian

Hold the slinky close to the magnet at a few different angles.

### What to do:

Pick up the slinky by the small whiffle balls and move it around on top of the magnet. What do you notice? Now try to pull on the different whiffle balls. Can you make it walk across the plate? What types of shapes can you create?

### What is happening:

The plate has a magnet with the north pole pointed up and the south pole pointed down. As the slinky moves into the magnetic field, the slinky becomes magnetized so that the bottoms of the coils become south poles and the tops of the coils become north poles. This then causes a repulsive force between the coils, expanding the slinky.

### Up-cycled Materials:

- Slinky
- Whiffle balls

## Feedback round!

- Explore the creations of your peers
- Leave positive/constructive feedback

Check out our video series  
*Get Your Science On* to learn more  
about building your own projects:



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