

The weather is cooling down, the leaves are changing colors, and students are building new relationships and getting more comfortable asking questions. How was your first month of school? Check out our updates in this week's newsletter.

Here's a preview:

- ★ Links to required google forms
- ★ Recruitment and Planning Resources
- ★ Paid virtual PD: COVID-19 vaccines DIVE4 Ag Paid Opportunity for students
- ★ Public Lab Resources
- ★ Putting it all together: sample SMILE club ideas

In a hurry? **Action items are highlighted.**

## Recruitment & Planning Resources

- What are SMILE clubs? [Link to YouTube recruitment video](#)
- [Recruitment Google slide flyer template](#) (easy to edit!)
- [Family Math & Science Night flyer template](#) (edit away!)



## SMILE Housekeeping Checklist

- ☐ Please fill out the **Teacher Information Form** in Ideal-Logic
- ☐ When you know your **Club Meeting Schedule**, please fill out this [SMILE setup info google form](#).
- ☐ **Club application materials** are due November 5th. Membership applications and a teacher help guide can be found on the [Program Forms section of the website](#).
- ☐ Trying to plan **Family Math & Science Night** in an uncertain time? Fill out this [FM&SN info google form](#) to update us.

## New addition to the 2021-22 School-Year Calendar!

We all have questions about the COVID-19 pandemic, transmission of the virus, the effectiveness of COVID-19 vaccines, and things we can do to help keep our families and communities safe and healthy. What information about the virus and the vaccines should we believe and trust? How do we decide what to do? **Tuesday, October 26th at 4pm PT**, look forward to a **LaCuKnoS virtual PD session** where we will discuss these questions through the lens of knowledge-building and will share a model lesson about infectious diseases and vaccines. This virtual teacher workshop comes with a **\$35 stipend** for SMILE teachers!



## Opportunities

### Application Extended!

Help us recruit high school youth to join the DIVE4Ag Teens as Teacher program. This isn't another virtual meeting! Youth will earn a stipend while gaining leadership and public speaking skills.

DIVE4Ag Teens as Teachers youth are content co-creators for virtual reality apps and help create content like being a hologram. No prior experience with agriculture needed!

Limited spots available and applications close by October 4th. [Apply today!](#)



## Resources

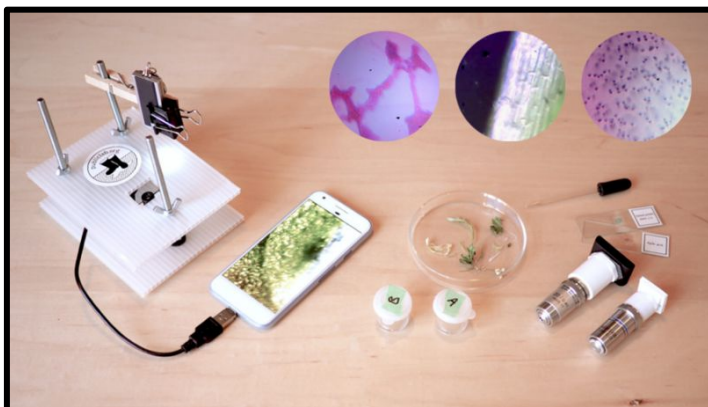


# PublicLab.org

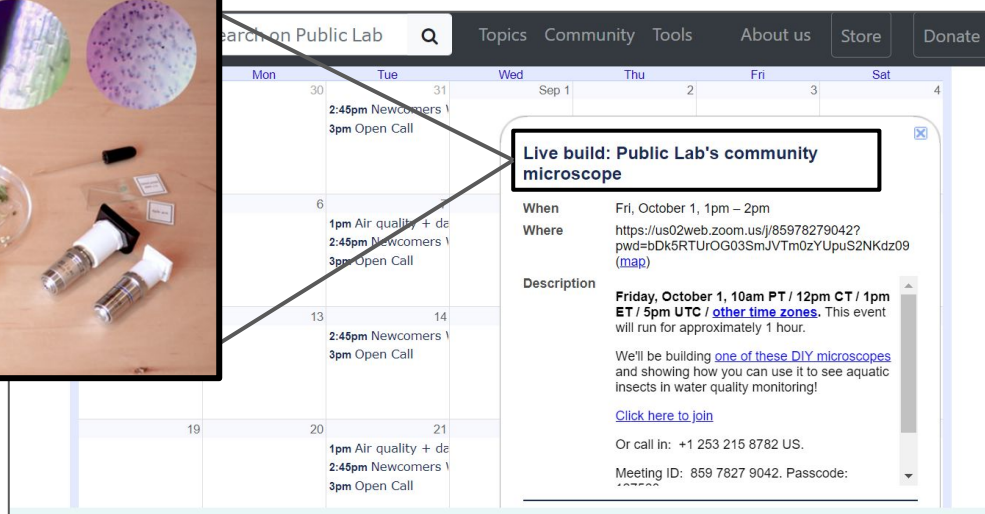
For more info join the [Newcomers Welcome Call](#), hosted every Tuesday at 2:45pm ET (6:45pm GMT during Daylight Saving Time, 7:45pm GMT during Standard Time) in the 15 minutes leading up to Open Call, on the same call-in line. This call is a space for anyone who is new to Public Lab to get acquainted and explore pathways for getting started with the Public Lab community.

Lots of ideas but low on funds? Public Lab is a DIY environmental science community founded in the wake of the BP oil disaster with the goal of pursuing environmental justice through community science and open technology. With lots of ideas for [method hacks](#) and an [international Q&A board](#), they have lots of cool resources to check out when you're stuck.

[Click here to see Public Lab's upcoming events](#)



**Learn how to build a DIY microscope!**



## Putting it all together

Need a quick idea for your SMILE club this week? Try combining this current events article with a LaCuKnoS based discussion and past SMILE activity.

1. Have students read the article linked below and discuss the **Language** and **Culture** questions.

ScienceNewsforStudents

[Click for article link](#)

### Synthetic trees could tap underground water in arid areas

They could also help coastal residents mine fresh water from salty sources



2. Introduce [SMILE's paper towel science project](#) and review the **Knowledge** questions before you start. All you need are some simple materials to observe capillary action in real life!



Water is absorbed through paper towel material through a process called **capillary action**, or the rising of liquids through small holes in certain materials. Liquid is able to rise through a property of water called **cohesion**-- that is, water molecules like to stay close to one another. Water also likes to bind to certain other materials through a process called **adhesion**. These two properties work together to defy gravity!

#### METHODS

- Gather as many types of paper towel as you can (try to find at least 5). Discuss and record any differences you observe between the materials.
- Cut a  $\frac{3}{8}$  inch strip of paper from each.
- For each material you are testing, fill a cup with water and add a drop of food coloring (to be fancy, use rainbow colors). Carefully dip one end of each paper towel into the water exactly 1 inch.
- Wait 5 minutes and measure how high the water traveled!

3. Finish up by discussing the **Science** involved in this phenomenon, and linking the discussion back to synthetic trees.

## Language

- Why do you think scientists chose to name this new device a “synthetic tree?”
- If you were in charge of marketing the product, what would you name it?

## Culture

- What inspired mechanical engineer Nddi Eyegheleme to make synthetic trees?
- What do you believe the most important problems are in your community?

## Knowledge

- What do you know about how water behaves? What makes it different from other substances?
- Do you think more expensive brands of paper towels work better? Why or why not?

## Science

- What happened? Did you notice any major differences in terms of absorption levels?
- Explain how what you observed with the paper towel is similar and/or different to capillary action in a plant.