



# From Tots to Teens: STE(A)M Powered Ideas for Programming

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All programs talked about in our webinar can be found —complete with program outlines, supply lists, procedures, links to explanations, tips, and more— at **STEMinlibraies.com**.

## **Why STEM?**

Support and supplement school curriculum, and provide opportunities for hands-on experiments that schools cannot.

Kids are naturally interested in exploring the world. Libraries can nurture and maintain this interest to help them stay ahead of the curve.

STEM programs promote critical thinking, creativity, and problem solving skills.

STEM programs allow for a collaborative learning environment.

Support your library's core mission.

Because it's fun. And *awesome*.

## **Where to Find Programs**

*STEMinlibraries.com*: 52 Weeks (and more) of fun, pre-planned programs, kid-tested, librarian-approved!

*Pinterest*: Try searching for terms like "Science for Kids" or specific topics such as "Water Experiments."

*Google*: Have a topic in mind? Google it! Pro Tip: Use Google Image Search to get a fast idea of what the experiment involves.

*Ask a Librarian*: Join the STEM in Libraries Facebook group!

*Library Books*: Books! Yes! Kids' experiment books have a wealth of fun and engaging things to try out. Take a peek and get inspired.

*Constant Vigilance!*: Inspiration can strike anywhere. Keep an open mind and you'll discover fantastic things!

## **Evaluating Program Ideas**

How long will it take? Can it be done in an hour or an hour and a half? Pro Tip: A good rule of thumb is to take the time it takes you to do a project and multiply it by 3.

10 minutes for you equals 30 minutes for a room full of kids.

Can it be easily replicated for 20+ kids?

How much hands-on help is needed?

Are the supplies easy or hard to find?

What level is the science at?

Is it fun?!





## **Tips, Tricks, and Other Practicalities**

You will learn (and forget) many strange and interesting things.

Don't be afraid to say "I don't know."

If you are enthusiastic about a project, the kids will be, too. Yay, Science!

Don't over-plan. One extra project in reserve is fine, three is probably too much!

Programs that involve free building are the best.

Is there something questionable in your program? Better do it yourself! Hot glue, rubbing alcohol and vegetable oil are best handled by adults.

Embrace the Chaos!

There's no such thing as failure.

### **Science Toolbox: Supplies worth investing in**

A set of large, clear disposable plastic cups

Measuring cups and spoons (dollar store!)

Eye droppers (\$6.99 for 12!)

Baby food jars (free, if you're lucky!)

Calculators (dollar store!)

Rulers/Measuring tape (dollar store!)

Funnels (dollar store!)

Marbles and balls (dollar store!)

Shoebox-sized storage containers (dollar store!)

Plastic drop cloth or tarps

Low Temperature Hot Glue Gun

### **Science Toolbox: Supplies to keep in stock**

A never-ending supply of paper towels

Sandwich baggies

Straws

Masking tape or Painters tape

Scotch tape

Pencils

Vinegar

Toothpicks

Spoons

Aluminum foil

Baking Soda/Corn Starch/ Salt

## **Remember:**

If everything fails, just say "It's an experiment!"

That is the beauty of science.

