

# Science of Scouting Playbook





# Science of Scouting

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The Science of Scouting (STEM-related activities - science, technology, engineering, and mathematics) recruiting program is designed to stimulate the great minds of our youth through engaging activities in the world of science. By participating in a variety of experiments, leaders will guide young Scouters through the process of discovery, watching as curiosity and excitement take over as the boys learn new things and develop new passions. Whether creating slime from scratch, building catapults, or making giant bubbles, Scouts will have lots of fun from start to finish!

## Concept

Your council or district will host a community event for parents and youth to design, build, and launch their own rockets. All of the details (supplies, snacks, instructors, games) will be taken care of by the council or district. All the families need to worry about is having a great time. Through this simple interaction, parents will see the experience, friendships, and once-in-a-lifetime opportunities that Scouting can offer their children. It's sort of a "test drive" of the Scouting experience. Scouting employees and volunteers will be on-hand to help with the event, answer any questions, and of course, sign up new Scouts! This playbook will act as your guide for planning, promoting, and carrying out an event in your area.

# Planning the Activity

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A good scientific study asks the right questions before any lab work begins. Similarly, a successful Science of Scouting event will begin with the proper planning. But don't worry, it's not as complicated as it sounds. Here are a few things you will need to have in place beforehand in order to help ensure the success of your event.

## Step 1 – Determine Your Strategy

The Science of Scouting program can be used as either a single, stand-alone event, or as part of a broader recruiting effort. For example, the program could be promoted at back-to-school nights or other similar presentations to incentivize families to join Scouting. Or you could plan to host this as an open community event and be prepared to recruit and provide a science related giveaway at the event itself. Promoting the event at presentations beforehand while still having additional science giveaways available at the event is also an option.

## Step 2 – Set a Budget

Once you have committed to hosting a Science of Scouting event, budget the appropriate funds needed for any giveaway items along with all of the supplies you'll need for each experiment (some councils have been successful securing donations to help cover these expenses). The number of stations you provide is flexible based on how you structure your event. We have included a sample material list and instructions for conducting each experiment under Additional Resources at the bottom of the page. Other costs to consider include event venue, food & drink, and other miscellaneous event costs.

## Step 3 – Pick a Date

This activity could be done indoors or outdoors so the time of year can vary depending on other recruiting efforts. Remember, however, many families have busy weeknights filled with extra curricular activities, so try to schedule the event on a night when regular pack meetings are held to help set the right expectation. Specify a beginning and ending time but advertise the event as an "open time" for when families can show up and participate.

## Step 4 – Reserve a Venue

Select a family friendly location to host the event. Tonight is about SCIENCE so try and set the stage with your location. You could contact the local Jr. High or High School and see if lab access is available. Maybe meet at the local church, but bring plenty of sheets to make each table feels like a special lab. There are lots of options, just make sure it's easy to find and easy to access. Be sure to reserve the venue several months in advance.

## Step 5 – Secure Materials

A shopping list of materials is available in the additional resources section. Make sure you give yourself plenty of time to order certain items to ensure you have everything needed prior to the event.

## Step 6– Provide Meals

Plan to have a meal service run throughout the event and a designated meal time. Keep in mind that if you host the event on a weeknight, families may choose to have family dinner at the event so they may want to eat before the experiments begin. This might be a good time to explain to everyone the agenda for the night. In the end, however, be flexible. Choose something simple such as hotdogs and snacks.

## Step 7 – Organize Staff and Volunteers

Like most things in Scouting, this event will only work with the help of our dedicated volunteers and professional staff. This is a great opportunity for parents, alumni, and donors to get involved. Below are suggested staffing needs with recommended numbers of people. Be aware that your staffing needs will vary depending on how many people show up to the event.



# Promoting the Activity

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It doesn't matter how fun the event is if nobody shows up. Here are a few tried and true tactics you can use to get the word out. Remember to think outside the box and apply them to your community's specific situation. We have created customizable assets to fit your individual needs that can be found by accessing the [BSA Brand Center](#).

## Current Members

Be sure your current parents and volunteers are aware of the event and are invited to participate. This is a recruiting event, and our best recruiters are those who are currently in love with our programs. A Scout family that brings their friends to an event is one of the most powerful recruiting tools we have. Inviting current members may help keep members who are on the fence about staying with Scouting.

## Social Media

Be sure to promote the event on your council's social media channels. Encourage parents and adults to share photos from the event on their Facebook, Instagram, and Twitter accounts. Often, any local businesses you partner with will be willing to share the event with their online communities as well.

## E-Mail

Reach out to your network digitally by sending them an email that promotes the event and includes links to learn more about Scouting in their community.

## Printed Materials

Fliers, posters, yard signs, etc. are great ways to drive awareness and promote the event in your local area. Professionally designed assets have been created for you to leverage during your recruiting efforts.

## School Outreach

School outreach is a great opportunity to promote your Science of Scouting event. Back to School recruiting nights provide an opportunity to invite new Scouts to the event and allow boys who are not signed up yet to see Scouting in action. Daily morning announcements, take home mail, and weekly emails to parents are also great options to explore.

## Public Relations / Earned Media

Reach out to your local newspapers and news stations and invite them to attend the event and do a story. Local news organizations usually appreciate advanced notice so be sure to let them know at least a week or two in advance. Additionally, consider inviting a local blogger as well.

## Community Partnership

Work with local businesses to have them provide prizes for the kids. Partner with churches and other local nonprofits (such as a science center or kids club) and invite them to participate as well. In addition to taking flyers to community centers, make sure it ends up on their online calendars.

# Holding the Activity

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Event participants should be organized into lab teams, a group of 3-5 boys with an adult leader in each group. Let the different groups come up with their own names for their lab and encourage them to share it with the group. Each lab team will stay together as they go through various experiment stations, working together to conduct their studies. The following is a list of experiments that could be conducted at the experiment stations. Pick the ones that you feel most comfortable leading.

## Super Soap Bubbles

This experiment is all about physics. Participants will learn about how different surfaces cause different soap bubbles to form. Plan on seeing bubbles. Lots and LOTS of BUBBLES! Each lab will contain enough supplies for all lab members to participate. Older boys (ages 11-13) will have fun building a variety of wireframes while younger boys (ages 7-11) will enjoy seeing all the different bubbles being formed. Click [here](#) for a list of materials and instructions.

## Elephant Toothpaste

In this experiment, participants will learn about the role of chemistry. By combining a few simple home ingredients, scouts will watch as a major foam reaction occurs, perhaps reminding them of a giant tube of toothpaste. The experiment is quick, easy and great for all ages. Click [here](#) for a list of materials and instructions.



## Slime Time

The purpose of this experiment is to show that chemistry isn't just important, it's fun! Each lab will go through a series of measured steps in the process of creating homemade SLIME! Participants will be left with a better understanding of the role chemistry plays in their lives while also leaving them with a fun take home gift. This event is for all ages and will be fun for anyone. Click [here](#) for a list of materials and instructions.

## Cobra Sticks

Demonstrating a steady hand will be key when performing this fun activity. Everyone in the lab will take turns weaving together popsicle sticks into a long chain that takes the shape of a snake. After the puzzle has been completed, it's time to watch your creation come to life! Click [here](#) for a list of materials and instructions.

## Catapults

Scouts will get an opportunity for a hands-on engineering lesson with this experiment. Each participant will get their own wood kit to construct a working catapult that they will put to use. Put Newton's first law to work and watch it throw! Click [here](#) for a list of materials and instructions.

## Station 4 – Awards & Lunch

After launching their rockets, the Scout and family will be given their awards and prizes (if applicable) and served lunch. This could even be organized as an award ceremony.

# Recruiting at The Event

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Recruiting at the event itself should occur naturally and organically. When parents and youth have the opportunity to participate in Scouting and see what it's all about, they tend to be much more responsive to recruiting messages. Be sure to have plenty of recruiting material on-hand and provide opportunities to sign up, but remember to keep it light and informal. Families came here to have a fun time, not to hear a sales pitch.



# Follow Up

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After the event, it is appropriate to follow up with the parents and families that attended and include them in future council communications. Send an email to new families thanking them for their time and sharing photos or recaps from the event. Include an invitation to join a local pack if they haven't already. The important thing is to follow up and ensure that those who have a desire to become part of Scouting are able to do so.

# Thanks!

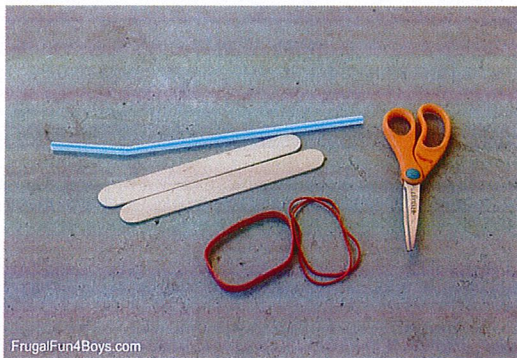




# HARMONICA

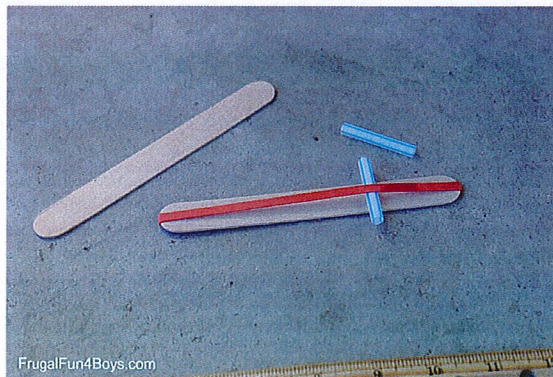
**To make one, you will need:**

- Jumbo craft sticks (2)
- A wide rubber band
- Two smaller rubber bands
- A straw
- Scissors



Cut two pieces of straw that are 1 – 1.5 inches long.

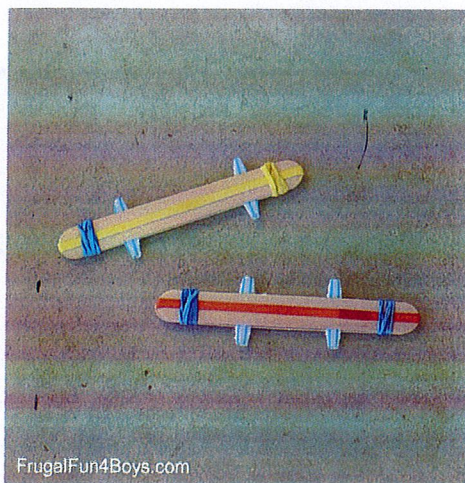
Stretch the thick rubber band around one of the craft sticks. Place one of the straws under the rubber band.



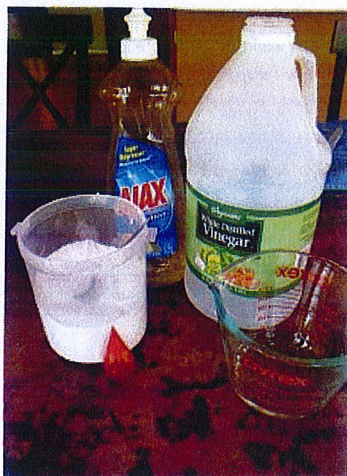
Put the other craft stick on top and attach them with one of the small rubber bands on the same end as the straw.



Stick the other piece of straw at the other end of the harmonica, but this time place it on top of the wide rubber band. Secure the end with the second small rubber band.



## Easy Volcano Experiment

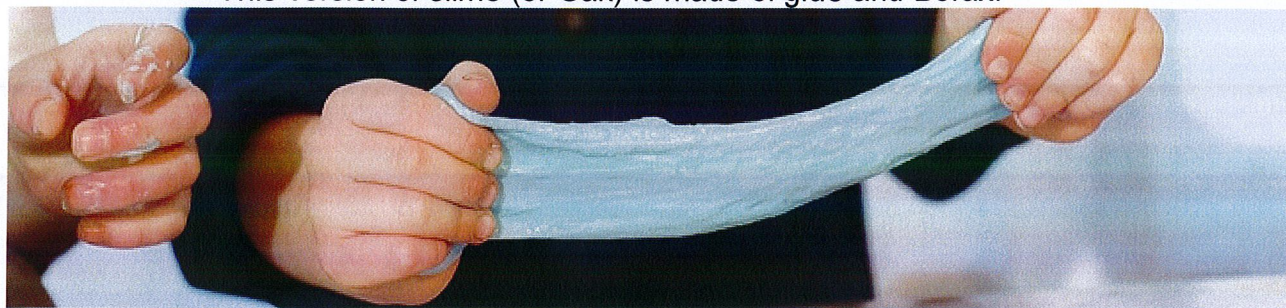


- Vinegar, 5 tablespoons
  - Water, 1/3 cup
  - Baking soda, 4 teaspoons
  - Dishwashing liquid, 2 teaspoons (more if you want extra foam)
  - Red food coloring (optional, if you want to make the lava look more authentic), 3 drops
1. Add the baking soda and dishwashing liquid to the water. Don't even need to stir.
  2. In a separate container, add the vinegar and red food coloring.
  3. Pour the vinegar mixture into the baking soda mixture. Instant lava.



### Simple Slime

This version of slime (or Gak) is made of glue and Borax.



#### What You Need:

- School glue
- Borax (Sodium tetraborate)
- Food coloring (optional)
- Water
- Two bowls

#### What You Do:

1. In one bowl mix 1 oz. glue (about  $\frac{1}{4}$  of the glue bottle) and  $\frac{1}{4}$  cup water. If you want colored slime, add food coloring to the glue and water mixture. Lift some of the solution out of the container with the stir stick and note what happens.
2. Add  $\frac{1}{4}$  cup of Sodium Tetraborate (Borax) Solution to the glue and water mixture and stir slowly.
3. The slime will begin to form immediately. Lift some of the solution with the stir stick and observe how the consistency has changed from Step 1.
4. Stir as much as you can, then dig in and knead it with your hands until it gets less sticky. This is a messy experience but is necessary because it allows the two compounds to bond completely. Don't worry about any leftover water in the bowl; just pour it out.
5. When not in use, store the slime in a plastic bag in the fridge to keep it from growing mold.

#### WHAT HAPPENED:

The glue has an ingredient called polyvinyl acetate, which is a liquid polymer. The borax links the polyvinyl acetate molecules to each other, creating one large, flexible polymer. This kind of slime will get stiffer and more like putty the more you play with it. Experiment with different glues to see if they create slime (e.g., carpenter glue, tacky glue, etc.).