

2025 Cub Adventure Day STEM Activity Options

1. Design Challenge: Building a Bridge

This activity is a great introduction to design thinking. It will capture a Scout's interest in a way that is fun and empowering. The challenge is to design a bridge that is made of marshmallows and toothpicks. The bridge must be able to connect two tissue boxes that are spaced six inches apart.

<https://teachersareterrific.com/2019/01/marshmallow-bridge-for-win.html>

2. Spinning Science: Disappearing Color

Did you ever think you could make colors disappear right before your eyes? Light plays a big factor in how we view objects, especially color. When you look at a moving object, the color you see distorts itself because of how your brain registers what it is seeing. This science experiment is just like a magic trick: *Now you see it, now you don't!* You can watch the colors vanish as they overlap and turn white in the spinning wheel. Find out how colors work with an intro to the color spectrum. Scouts will investigate the seven colors of the rainbow and then try a fun color wheel experiment to see how the colors blend to create white light.

<https://www.education.com/worksheet/article/color-spectrum-for-kids/>

3. Splitting Water, the Easy Way

Turn water into hydrogen and oxygen by using electrolysis!

<https://www.instructables.com/Splitting-Water-the-Easy-Way/>

4. It's a Gas

Use balloons to make carbon dioxide gas.

<https://youngscientistlab.com/science-starters/science-at-home/c2-balloon>

5. Electric Gelatin Materials Balloon

Move gelatin with balloons charged with static electricity.

https://250166798491881210.weebly.com/uploads/3/9/1/7/3917756/electric_gelatin_color.pdf

6. Invisible Ink Messages used by George Washington

<https://www.mountvernon.org/education/for-teachers/lessonplans/online-activities-for-kids-2/how-to-make-invisible-ink>

7. Milk Fireworks or Tie-Dyed Milk

Could split each group into smaller segments of 2 to 4 Cubs.

<https://thinkbluemarble.com/learning-galaxy/activity-lab/make-milk-fireworks/>

8. Dancing Raisins

<https://funlearningforkids.com/dancing-raisins-science-experiment-kids/>

9. Don't Blow It - The Impossible Balloon Experiment
<https://www.sublimescience.com/free-science-experiments/impossible-balloon-experiment/>
10. The Floating Golf Ball: A Density Experiment
<http://blog.teachersource.com/2016/07/15/floating-golf-ball-density-experiment/>
11. Make an Oobleck!
Oobleck is a non-Newtonian fluid. That is, it acts like a liquid when being poured, but like a solid when a force is acting on it. You can grab it and then it will ooze out of your hands. Make enough Oobleck and you can even walk on it!
<https://www.instructables.com/Oobleck/>
12. Silly Putty
<https://www.instructables.com/Silly-Putty/>
13. Ice Cream
<https://www.sciencebuddies.org/stem-activities/ice-cream-bag>
14. Make a Lemon Volcano
<https://www.sciencebuddies.org/stem-activities/make-lemon-volcano>
15. Explore Glow-in-the-Dark Water!
<https://www.sciencebuddies.org/stem-activities/tonic-water-glow>
16. Build a Mini LED Lightsaber
<https://www.sciencebuddies.org/stem-activities/mini-LED-lightsaber>
17. How to Make a Homopolar Motor
<https://www.sciencebuddies.org/stem-activities/how-to-make-a-homopolar-motor>
18. Make a Straw Siphon
<https://www.sciencebuddies.org/stem-activities/straw-siphon>
19. Make a Homemade Compass
<https://www.sciencebuddies.org/stem-activities/magnetic-compass>
20. Create Your Own STEM Activity!
21. Create Your Own STEM Activity!
22. Create Your Own STEM Activity!
23. Create Your Own STEM Activity!
24. Create Your Own STEM Activity!