



52 Weeks of STEM @ Your Library

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STEAM Storytimes:

1. **Building and Fixing!:** What happens when things break? You fix them! Get creative and hands-on in this building and fixing-themed storytime.
2. **Electricity and Magnetism!:** Understand where electricity comes from and how circuits work, and play with the forces of magnetism in this shockingly great storytime.
3. **Outer Space:** Explore outer space and learn about the planets in storytime, then do crafts and visit 'the moon' in your custom-made space helmet!
4. **Our Bodies!:** How do our bodies work? Get your heart beating during an active storytime, then explore digestion, a model lung, the components of our blood, and more.
5. **Rain:** Learn about rain and the water cycle in storytime, then make a rain stick, a cloud craft, test items for absorbency, and more.
6. ***Shadows:** How are shadows made? Play with shadows in the light and dark.
7. **Sound:** Learn about how sound is made and all the places it can come from.
8. **Animals:** How do animals stay safe and warm when they live outside all year long? Learn all about animal adaptations and habitats in this fun storytime.
9. ***Numbers:** Why is math important? Count your way through this story time and a variety of math-related crafts, learn about doubles and pairs, and more.
10. ***Growing Things:** Explore the world of seeds and plants through stories, songs, and hands-on activities.

1st-3rd Grade Programs:

11. **Balance:** What keeps us upright? Explore balance with fun videos, experiments, a balancing robot craft, and making your very own balance scale to take home.
12. **Bird Nests:** Can you build a nest as well as a bird does? You'll gain a deeper appreciation for our skilled avian friends after this messy, muddy program.
13. **Buoyancy:** Will it sink or float? Learn about density and buoyancy through demonstrations and making clay and tin foil boats.
14. **Cardiovascular System:** See how our hardworking heart, blood, and lungs work together to keep us healthy, then make your very own inflatable heart.
15. **Microbes:** Explore the world of microbes by understanding what they are, how they work, and what they do.
16. ***Paper Circuits:** Learn how electrical circuits work by creating designs out of copper tape on paper!





17. **Code Crackers:** Learn how computers read code, then try simple programming on your own using Code.org.

18. **Let's Be Paleontologists!:** Try out your paleontological skills by digging for treasure buried in tubs of dried oobleck!

19. **Mathscapades:** Math is vital to science, so let's make it fun! Toss & Multiply bean bag games, pizza topping bar graphs, and magical math tricks are all possibilities for this program.

20. **Milk Science:** Learn about the important nutrients in milk, play with colorful "magic milk," make homemade ice cream, and more.

21. **Optical Illusions:** You won't believe your eyes! Explore the amazement of optical illusions, learn how they work, then create illusions of your own.

22. **Outer Space Science:** Just how big is our solar system? Understand the distance between planets, create constellations, and learn the phases of the moon with delicious Oreo cookies.

23. **Structures:** How are buildings made? Build the tallest structure you can out of plastic cups, then try your hand at marshmallow-and-toothpick buildings.

24. **Three Little Pigs Science:** He huffed and he puffed and...how does that go again? Make houses out of straws, craft sticks, and Lego bricks and see which ones stand up to the big bad fan!

25. **Water Experiments:** Explore the wonders of water with a variety of water experiments.

26. **Weather:** Twisters and precipitation and wind measurement--oh, my! Demonstrations abound in this fun-filled, weather-themed program.

4th-6th Grade Programs:

27. **Aerodynamics- Paper Airplane Science:** Learn the principles of aerodynamics and build a better paper airplane!

28. ***Balloon Science:** Try poking a skewer through a balloon without popping it, and making your own balloon-powered race car.

29. **Beam and Suspension Bridges:** Learn the difference between beam and suspension bridges, then build and test your own for strength in small groups.

30. **Blinky Monsters with Sewable Circuits:** Create a plush monster that will really light up your world using conductive thread, batteries, and LEDs.

31. **Boats in the Water!:** How does a boat stay afloat? Learn about buoyancy and apply that knowledge toward building a boat (powered by your own breath) that goes faster than all the others.

32. **Bubble-Mania:** Learn about and play with bubbles!

33. **Candy Science:** What is sucrose? Predict how fast various candies will dissolve, watch pop rocks in soda inflate balloons, experiment with candy chromatography, and more.

34. **Catapults:** Understand the physics behind these medieval "siege engines," build a handheld and a box-style catapult, and test them for distance and accuracy.





35. ***Color Science:** Explore the science behind the colors that you see.
36. **Computer Programming Unplugged:** Grasp the fundamentals of computer programming through games and life-sized mazes (yes, really!).
37. **Density:** Learn about the density, and make an amazing, multilayer density tower.
38. **DIY Rollercoasters:** Can you make a successful rollercoaster out of insulation tubing and masking tape?
39. **Egg Drop:** Build an egg-straordinary contraption that will protect your team's egg from as 12-foot fall.
40. **Exploring Animoto.com:** Bring your photos to life! Create a slideshow of your favorite photos set to music with the free online tool Animoto.com.
41. **Exploring DNA:** Mash your way to fruit DNA! Learn about DNA, and extract it from bananas, strawberries and kiwi.
42. **Exploring Photoshop.com:** Learn how to use the free, online photo editing tool Photoshop.com
43. ***Filtration and Edible Aquifers:** Where does our clean water come from? After you learn about filters, find out about aquifers and ground pollution by making a sweet, edible aquifer.
44. **Fingers of the Hand:** Do you know the names of the bones in our hands? You will after a program that has you build a working model of the human hand!
45. **Hydraulic Butterflies:** Learn how a little water can go a long way in this physics-filled program. Create a hydraulic butterfly to take home!
46. **It's Electric!:** Learn how circuits work, then rotate through four electrifying stations: squishy circuits, LEGO WeDo, Snap Circuits Jr., and building a lemon battery.
47. **LEGO Architecture and Ratios:** Can your team make a scale model of part of the library out of LEGOs in just 90 minutes?
48. **Magnets:** Learn about the forces that make magnets work, and try your hand at a variety of fun magnetic experiments.
49. **Movie Makers:** This two-day program allows you to write, film, and star in your own short movie, and edit it the next day using iMovie.
50. **Newspaper Tables:** Can you make a table entirely out of newspaper and masking tape that is at least 8" tall and can support at least one heavy book? Understand what makes a strong shape--and therefore, a good building--in this program.
51. **Orders of Magnitude and Nanotechnology:** Play a game to understand and calculate the Orders of Magnitude, then build origami shapes to mimic carbon nanostructures.
52. **Pi Day!:** Celebrate 3.14 on 3/14 by calculating pi using cookies, playing games, and more.





53. **Plants:** Learn and explore what makes plants grow and thrive with fun, hands-on experiments.
54. **Presenting with Pizzazz, featuring Prezi.com:** Give your presentations a little extra pizzazz and make one in Prezi.com, a free online tool.
55. ***Polymers:** Learn the science behind polymers, and try a variety of related experiments.
56. **Radical Robots:** Can you create a drawing robot out of a toothbrush and pool noodle? Can you draw a circuit and make it light up? You can in this program!
57. ***Sense of Taste and Smell:** What's that smell? What does this taste like? Learn how these powerful senses are connected by doing experiments like blind taste tests with baby food.
58. **Simple Machines:** Learn the basic mechanics of simple machines, then build one of your own.
59. **Sound:** How does sound travel? Watch noise move rice, make your own harmonica, and more.
60. **Sphero Hero!:** Learn how to use the Sphero robotic ball and create obstacle courses to challenge other teams.
61. **Word Wonders:** Learn tips and tricks in Microsoft Word.
62. ***Artistic Circuits:** Make cards and paper lanterns light up with copper tape circuits!

Family Science:

63. **Fun Family Science:** A variety of fun and engaging experiments that families can do together.
64. **Hands-On Science Museum:** From geoboards to building pipe structures to exploring magnetic forces to painting with magnets and beyond--this DIY science museum has something for everyone!
65. **Messy Science:** What fun is summer if you can't get messy? This outdoors program promises exploding sidewalk chalk, water balloons, giant bubbles, walking on oobleck, and more!
66. **Scientists Read!:** Invite local scientists to your library to share what they do and read some of their favorite books at a family storytime.

**Coming Soon*

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