

# Programming With



Science

Technology

Engineering

Art

Math





- Finding ideas
- Selecting projects and books
- Planning and advertising
- Running smooth programs/ managing materials
- Program ideas
- Q & A



# Finding & Selecting Great Ideas

- Pinterest
- Professional Organizations
- Community Experts
- Your Own Library
- Start with Books





# Selecting Projects

- Exciting and accessible
  - To you
  - To your patrons
- Manageable
  - Time
  - Materials





## Selecting Books

- New/Popular
- Tie -In With Current Events or Pop Culture
- Drum up Interest



# Planning and Advertising

- Sign Up vs. Drop In
- Age Group
- Scheduling
- Reach out!





# Running Smooth Programs And Material Management

- Setting Up
- Materials
- Instructions
- Examples





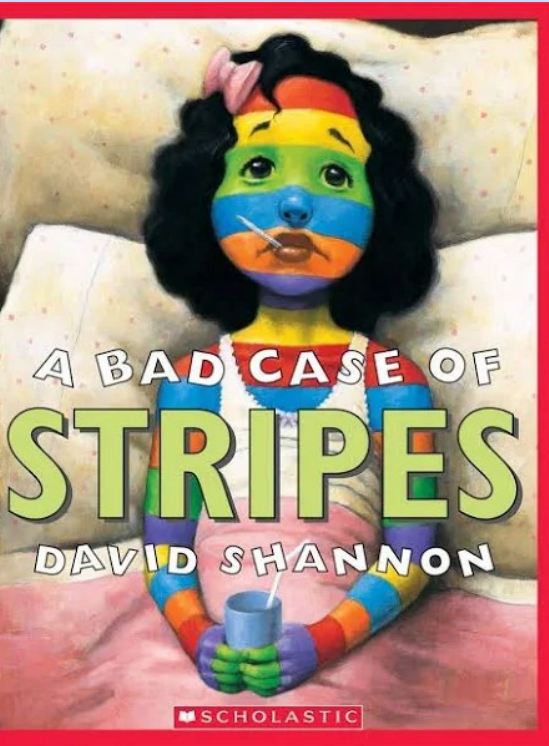
# Programming Ideas

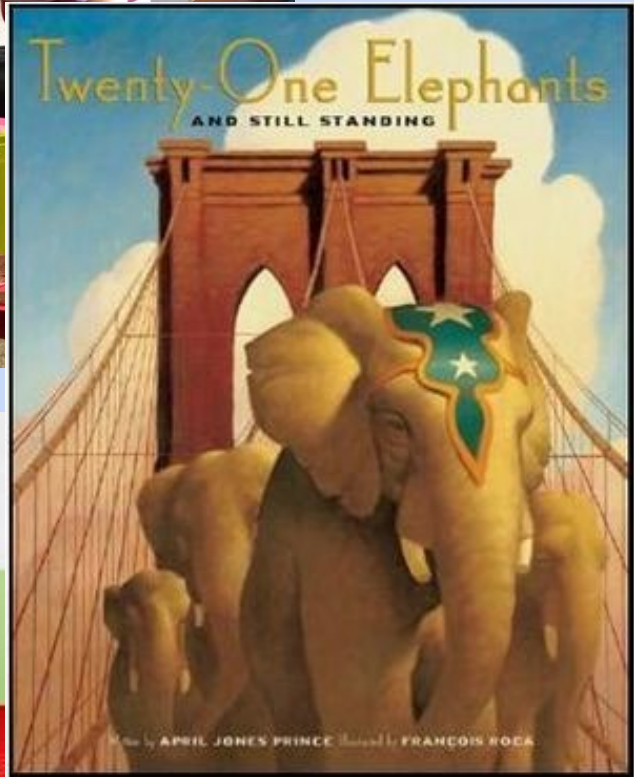




# Liquid Layers

## (Steve Spangler Science)







# Bots!

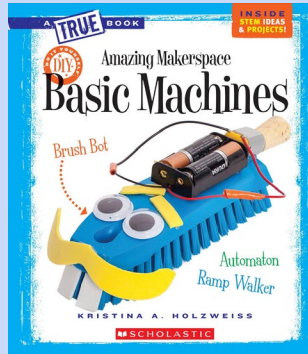
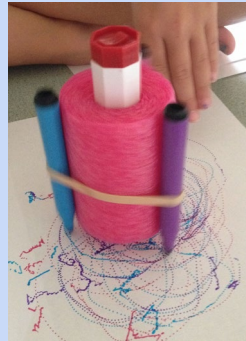
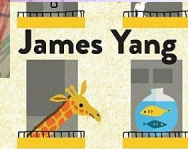
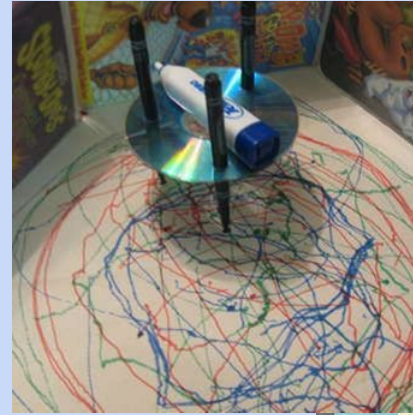
## (Brush Bots or Bristle Bots)

<https://www.instructables.com/id/How-to-make-a-simple-bristlebot/>

<https://pbskids.org/designsquad/build/bristle-bots/>

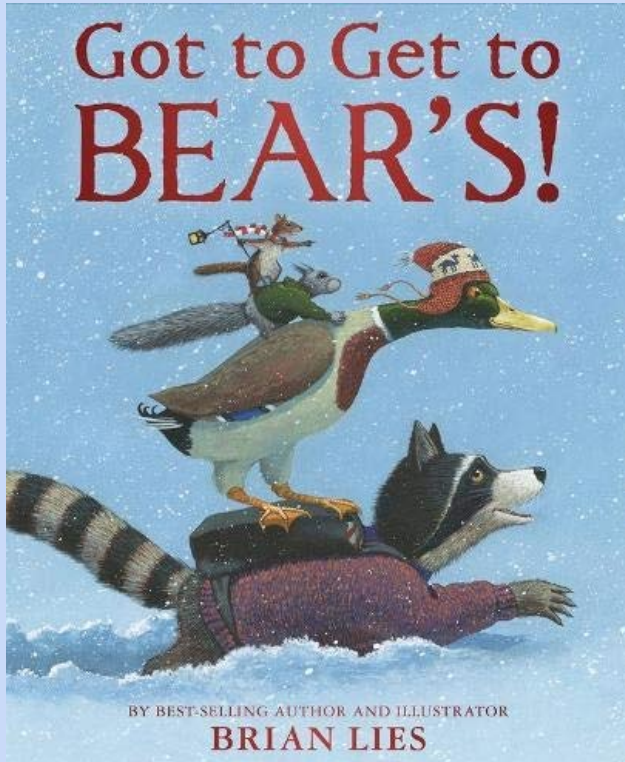
<https://artfulparent.com/art-robot/>

<https://babbledabbledo.com/the-bot-book/>



# Watercolor Resist Art

<https://www.messylittlemonster.com/2019/11/wax-crayon-resist-art.html>





# Binary Code Bracelets

<http://elenikyritsis.com/teaching-binary-by-creating-bracelets/>

U  
Unplugged

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Binary Bracelets

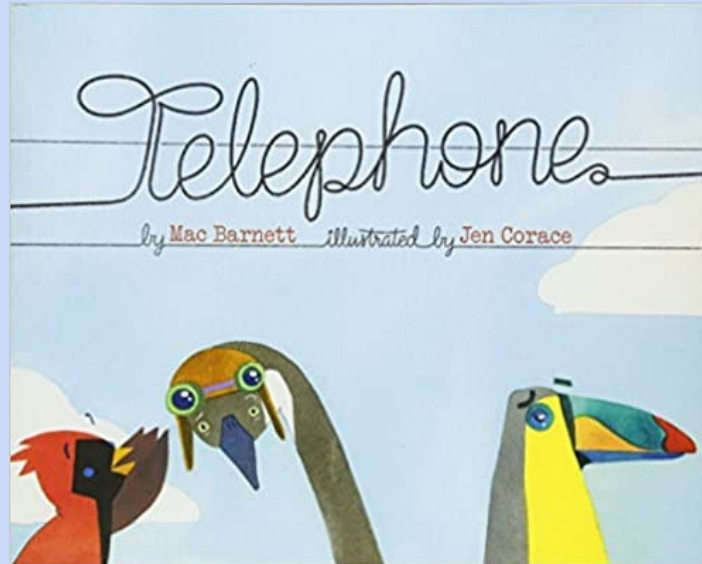
Binary Decoder Key

A	■ ■ ■ ■ ■ ■ ■ ■	N	■ ■ ■ ■ ■ ■ ■ ■
B	■ ■ ■ ■ ■ ■ ■ ■	O	■ ■ ■ ■ ■ ■ ■ ■
C	■ ■ ■ ■ ■ ■ ■ ■	P	■ ■ ■ ■ ■ ■ ■ ■
D	■ ■ ■ ■ ■ ■ ■ ■	Q	■ ■ ■ ■ ■ ■ ■ ■
E	■ ■ ■ ■ ■ ■ ■ ■	R	■ ■ ■ ■ ■ ■ ■ ■
F	■ ■ ■ ■ ■ ■ ■ ■	S	■ ■ ■ ■ ■ ■ ■ ■
G	■ ■ ■ ■ ■ ■ ■ ■	T	■ ■ ■ ■ ■ ■ ■ ■
H	■ ■ ■ ■ ■ ■ ■ ■	U	■ ■ ■ ■ ■ ■ ■ ■
I	■ ■ ■ ■ ■ ■ ■ ■	V	■ ■ ■ ■ ■ ■ ■ ■
J	■ ■ ■ ■ ■ ■ ■ ■	W	■ ■ ■ ■ ■ ■ ■ ■
K	■ ■ ■ ■ ■ ■ ■ ■	X	■ ■ ■ ■ ■ ■ ■ ■
L	■ ■ ■ ■ ■ ■ ■ ■	Y	■ ■ ■ ■ ■ ■ ■ ■
M	■ ■ ■ ■ ■ ■ ■ ■	Z	■ ■ ■ ■ ■ ■ ■ ■

Find the first letter of your first name.  
Fill in the squares of the bracelet below to match the pattern of the squares next to the letter that you found.  
Cut the bracelet out and tape it around your wrist to wear it!

□ □ □ □ □ □ □ □

Revision 140902.1a



U  
Unplugged

## Binary Bracelets

Binary Decoder Key

A	■ ■ ■ ■ ■ ■ ■ ■	N	■ ■ ■ ■ ■ ■ ■ ■
B	■ ■ ■ ■ ■ ■ ■ ■	O	■ ■ ■ ■ ■ ■ ■ ■
C	■ ■ ■ ■ ■ ■ ■ ■	P	■ ■ ■ ■ ■ ■ ■ ■
D	■ ■ ■ ■ ■ ■ ■ ■	Q	■ ■ ■ ■ ■ ■ ■ ■
E	■ ■ ■ ■ ■ ■ ■ ■	R	■ ■ ■ ■ ■ ■ ■ ■
F	■ ■ ■ ■ ■ ■ ■ ■	S	■ ■ ■ ■ ■ ■ ■ ■
G	■ ■ ■ ■ ■ ■ ■ ■	T	■ ■ ■ ■ ■ ■ ■ ■
H	■ ■ ■ ■ ■ ■ ■ ■	U	■ ■ ■ ■ ■ ■ ■ ■
I	■ ■ ■ ■ ■ ■ ■ ■	V	■ ■ ■ ■ ■ ■ ■ ■
J	■ ■ ■ ■ ■ ■ ■ ■	W	■ ■ ■ ■ ■ ■ ■ ■
K	■ ■ ■ ■ ■ ■ ■ ■	X	■ ■ ■ ■ ■ ■ ■ ■
L	■ ■ ■ ■ ■ ■ ■ ■	Y	■ ■ ■ ■ ■ ■ ■ ■
M	■ ■ ■ ■ ■ ■ ■ ■	Z	■ ■ ■ ■ ■ ■ ■ ■

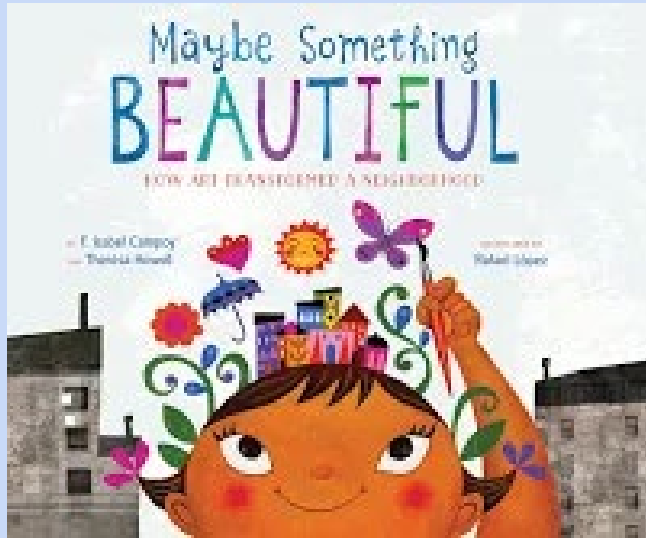
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□ □ □ □ □ □ □ □



# Coffee Filter Art

<https://www.kitchentableclassroom.com/color-mixing-on-coffee-filters/>



Copyrighted Material

## MIXED

A Colorful Story

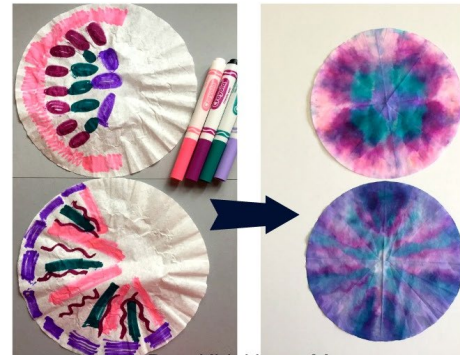
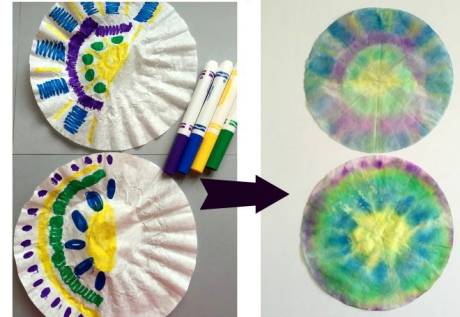


Arree Chung

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## Coffee Filter ART

The Tie Dye Effect



# Salad Spinner Art

<https://tinkerlab.com/salad-spinner-spin-art/>



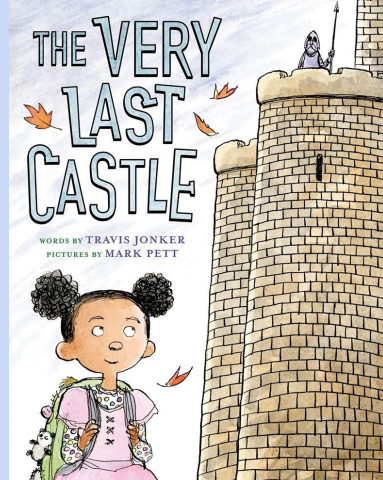
# Catapults

<https://littlebinsforlittlehands.com/popsicle-stick-catapult-kids-stem-activity/>

<https://littlebinsforlittlehands.com/angry-birds-plastic-spoon-catapult-stem-activity/>

<https://littlebinsforlittlehands.com/easy-lego-catapult-and-tension-experiment-for-kids/>

**POPSICLE STICK CATAPULT**  
STEM ACTIVITY FOR KIDS



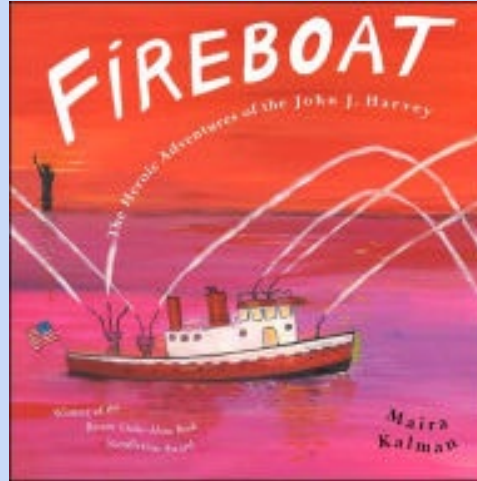
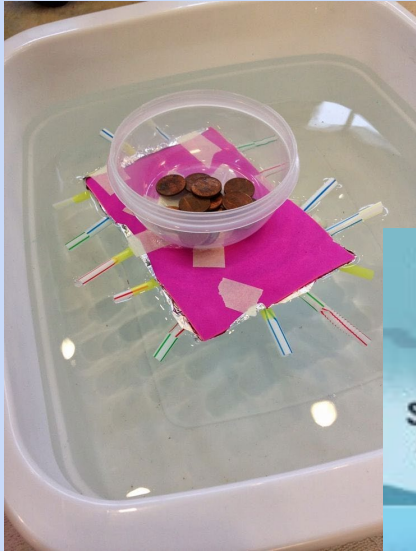
**EASY LEGO**  
**CATAPULT**



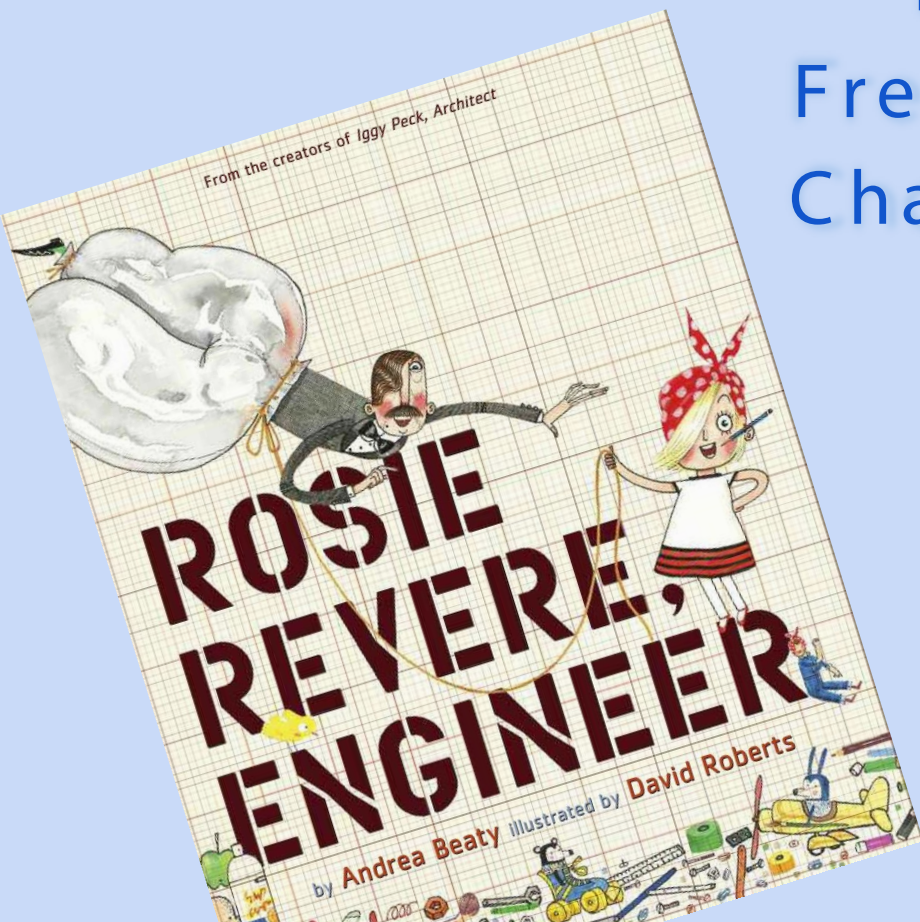


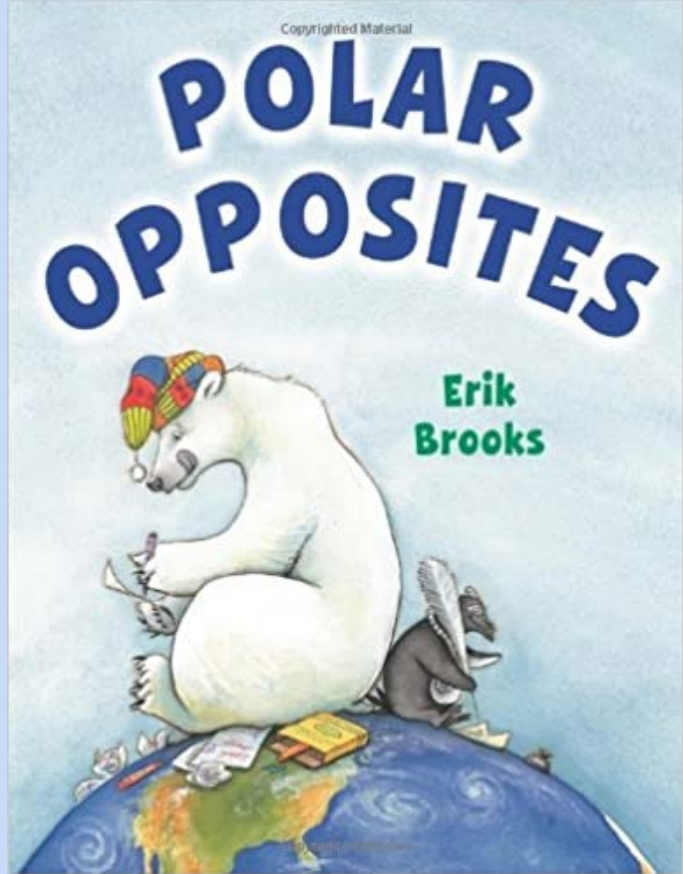
# Build -A-Boat Challenge

<https://pbskids.org/designsquad/build/watercraft/>



# Lego Free Build/ Challenges





# Blubber Science

[https://littlebinsforlittlehands.com/winter -polar -bear -blubber -science -experiment/](https://littlebinsforlittlehands.com/winter-polar-bear-blubber-science-experiment/)

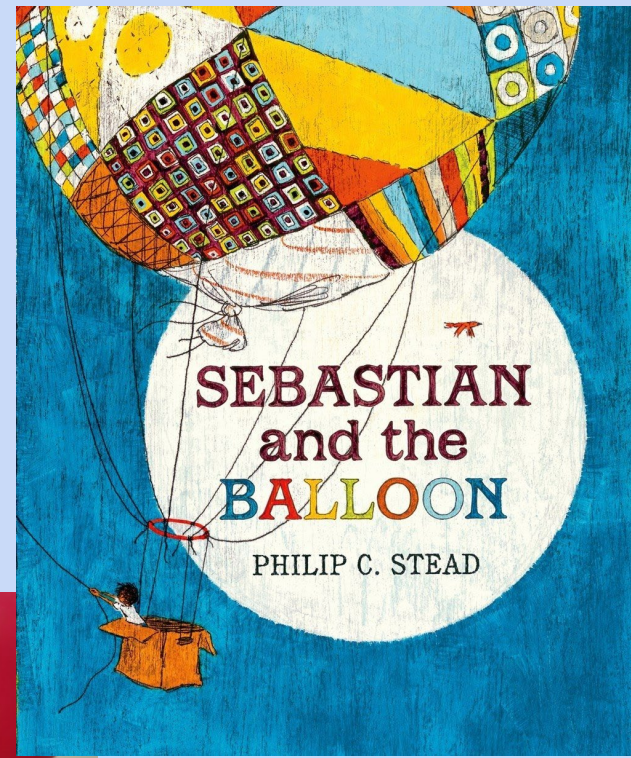
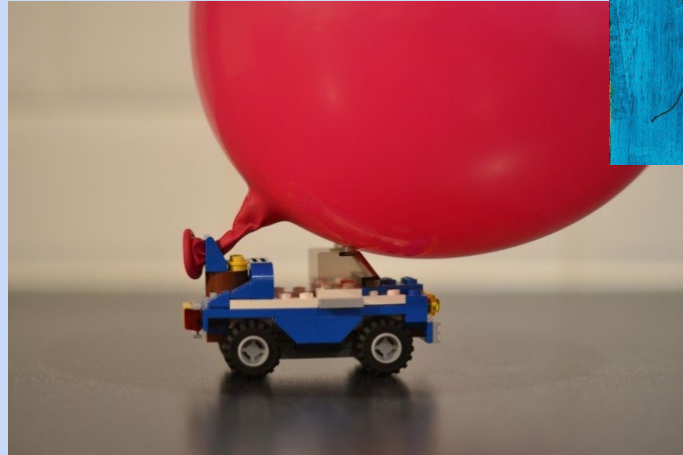




# Balloon Cars

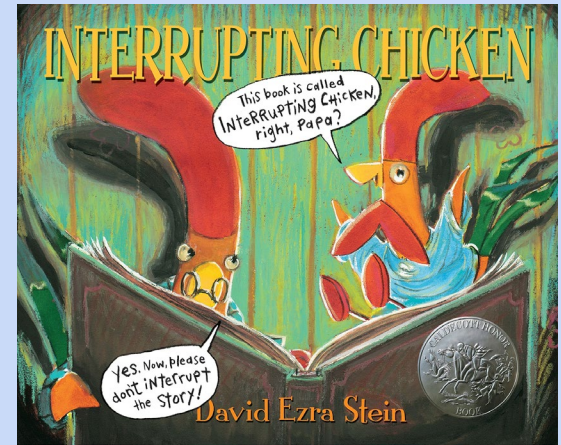
<https://pbskids.org/designsquad/build/2-wheel-balloon-car/>

<https://www.science-sparks.com/balloon-powered-lego-car/>



# Chicken Cluckers

<https://sciencebob.com/chicken-sounds-from-a-cup/>





Questions?



Thank you!

[amandacmoss@gmail.com](mailto:amandacmoss@gmail.com)