

Add some  
**S.T.E.A.M.**  
to your storytime  
at home!



**Colors**

### Young children are natural mathematicians!

The books and activities in this Storytime S.T.E.A.M. Backpack focus on exploring and playing with different mathematical ideas. S.T.E.A.M. stands for Science, Technology, Engineering, the Arts and Mathematics.

#### Mathematicians:

- Are brave and bold.
- Take risks and discover.
- Make mistakes, repeat, tinker, and change their thinking.
- Ask questions, share ideas, and consider other perspectives.



While you're reading these stories and playing with the materials, consider the following ideas and techniques to grow confidence and a love for math!

**Read together:** One of the best ways to deepen your reading time together is to pause and ask questions.

- What do you think will happen in this story, and why do you think so?
- What will happen next? How do you know?
- What connections can you make between this story and another story?
- What do you see, notice, or wonder about?
- What (numbers, patterns, shapes or other math concepts) do you see?

#### Play Together:



- Use the counting bears to sort, count, create patterns, and color coordinate.
- Teach mathematical concepts such as addition, subtraction, and multiplication.

#### Books:

*Mix It Up* by Herve Tullet  
*The Button Book* by Sally Nichols

#### Activity:

Rainbow Counting Bears With  
Matching Sorting Cups

CHOKING HAZARD -- Small parts. Not for children under 3 yrs.

**tacoma public library**

**Tacoma Public Library**

1102 Tacoma Avenue South  
Tacoma, Washington 98402 | 253.280.2800  
[tacomalibrary.org](http://tacomalibrary.org)

## Color Hunt

Have your child choose a color from the book, *Mix it Up* and look for that color all around the house. Count how many times you found that color.

## Color Changing Milk

### Materials:

- A shallow dish
- Food coloring
- Milk with high fat content – half-and-half or whole milk work best.
- Liquid dishwashing soap
- A clean cotton swab

### Instructions:

- Pour milk into the dish to just cover the bottom. The layer of milk should have a height of about ¼ inch. Allow the milk to settle.
- Add one drop of each food coloring to the milk. The drops should be placed close together near the center of the dish.
- Dip the cotton swab into some dishwashing soap.
- Touch the colored milk at the center of the dish with the tip of the cotton swab. Do not stir the mixture.
- Add another drop of soap to the tip of the cotton swab and try it again. Experiment with placing the cotton swab at different places in the milk. Notice that the colors in the milk continue to move even when the cotton swab is removed. Why do you think this is happening? Ask questions! Give reasons/theories based on your observation!

## Walking Rainbow

### Materials:

- 6 mason jars or glasses
- Food coloring (red, yellow, and blue)
- Paper towels



### Instructions:

- Fill three jars full of water.
- Add food coloring to each jar.
  - 1 red, 1 blue, 1 yellow
- Put an empty jar between red and yellow, yellow and blue, and blue and red.
- Roll the paper towels into tube-like pieces and put one end in a full jar and the other end in an empty jar.
- The paper towels will start soaking up the water right away.
- Within a few hours, you will see the color starting to mix in the empty jars, but it will take about 48 hours before the process is finished.

## Colors We Know

Tune: *Twinkle Twinkle*

Red and orange, green and blue,  
shiny yellow, purple too!  
These are the colors that we know,  
way up high in the great rainbow.  
Red and orange, green and blue,  
shiny yellow, purple too!

## Movement Song

Tune: *Knick Knack Paddy Whack*

Red, red, red, touch your head.  
Blue, blue, blue, tie your shoe.  
Brown, brown, brown, touch the ground.  
White, white, white, take a bite.  
Black, black, black, touch your back.  
Gray, gray, gray, shout hooray!



**More Books!**

- *It's A Great, Big Colorful World* by Tom Schamp
- *The Night World* by Mordicai Gerstein
- *They Say Blue* by Jillian Tamaki
- *The Many Colors of Harpreet Singh* by Supriya Kelkar
- *Mis Colores, Mi Mundo* by Maya Christina Gonzalez
- *Red House, Tree House, Little Bitty Brown Mouse* by Jane Godwin