

# GLCM STREAM

Science | Technology | Reading  
Engineering | Arts | Math



## Holiday STREAM Fest 2020



## A Flurry of Science And Family Fun!





## GLCM STREAM Live Schedule 11:00 am

### **Wednesday December 23<sup>rd</sup> Holiday- licious**

Tasty treats, edible art, yummy experiments, and lip-smacking delights for the whole family.

### **Monday December 28<sup>th</sup> Think Snow!**

#### **A Flurry of Fun!**

Enjoy some flakey fun this freezin' season! Go crystal crazy, crush with slush, and turn your snowy world into a "Winter-colorland"

### **Tuesday December 29<sup>th</sup> Shoot For The Stars!**

From stars in jars, to painting a galaxy, you can make your holidays sparkle with astronomy.

### **Wednesday December 30<sup>th</sup> Spread The Cheer!**

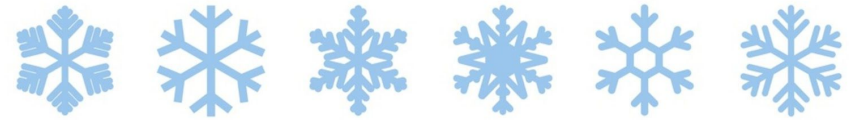
Let's finish this year by spreading some cheer! Discover simple things your family can do with others (even our four legged friends) in mind.

### **Thursday December 31<sup>st</sup> Countdown to Noon!**

It's back, it's back! The Great Lakes Children's Museum will be offering a virtual New Year's Eve celebration for the whole family! Join us via Zoom right from the safety of your own home. Pick up a Countdown Kit and you can decorate your very own ball! Don't miss it!

All above activities are available on  
The GLCM STREAM!

Participate virtually live, or watch recorded videos any time.



## Think Snow! A Flurry Of Fun!

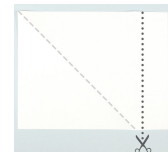
### Make A Flake

#### Supplies

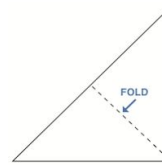
paper and scissors

#### Directions

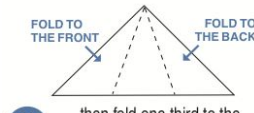
Make your paper into a square.



1 Fold the paper in half diagonally.

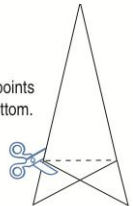


2 Fold the triangle in half ...



3 ... then fold one third to the front and one third to the back.

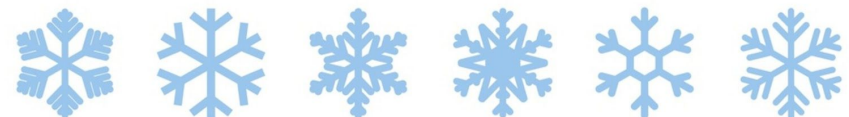
4 Trim the points off the bottom.

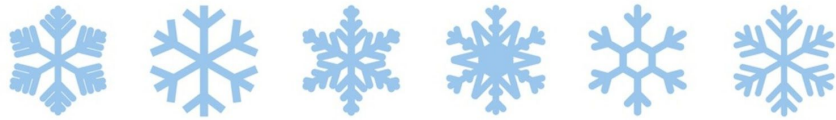


5 Cut into the folds.



Experiment by making different shapes, sizes, and numbers of cuts. Be sure not to cut all the way across the triangle.





## Frosty Ice Orbs

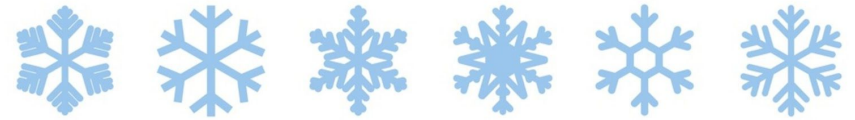


### Supplies

Balloons, food coloring, water, cold temps or a freezer,  
Snow (hopefully)

### Directions

1. Put 15-18 drops of food coloring in each balloon.  
Make multiple colors.
2. Fill the balloons to grapefruit size and tie off.  
Make a whole bunch.
3. Place balloons in a snowbank overnight and wait for them to freeze. If no snow is available, place balloons in bowls, in a freezer. When frozen remove the rubber from the balloons.
4. To make sculptures in your yard, make some slush by pouring a little water on some snow, then use the slush like glue to stick your ice balls together.



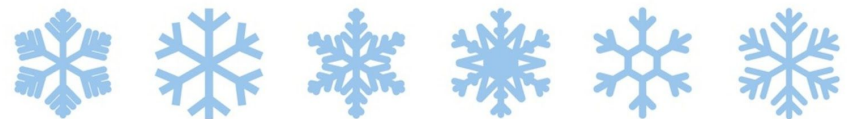
## Crystal Crazy

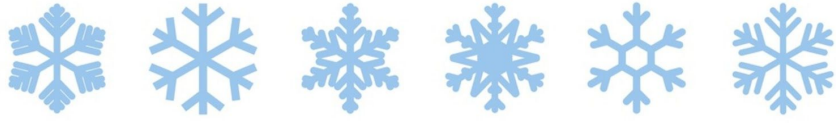
### Supplies

¼ cup water	cookie sheet	thread or fishing line
1/3 cup Epsom salt	paper towels	
pipe cleaners	small bowl or jar	

### Directions

1. Create a pipe cleaner snowflake and tie on the thread.
2. Mix Epsom salt in hot (not boiling) water. Stir until dissolved.
3. Put your snowflake into the bowl and pour the Epsom salt mixture on top.
4. Put the bowl in the refrigerator for a few hours.
5. When it sets up, pull the thread to break the snowflake free.
6. Place a snowflake on a cookie sheet to dry. Pat with paper towels.





## Blizzard Collage



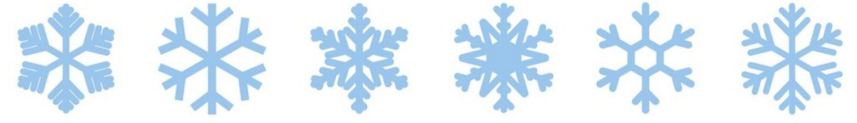
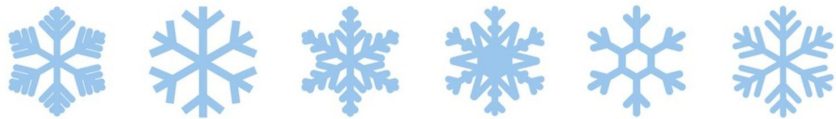
Imagine a snowstorm with art!

### Supplies

Lots of white paper, coffee filters, shredded paper, cotton balls  
Blue paper background  
Silver wrapping paper (optional)  
Glue and scissors

### Directions

1. Cut or tear white paper into strips and chunks
2. Curl some paper strips around a pencil
3. Fold some paper strips to create odd shapes
4. Glue paper strips randomly on the backing paper to create a white and wild blizzard!



## Crush With Slush

STEM Challenge



Can you Crush  
a plastic bottle  
with snow?

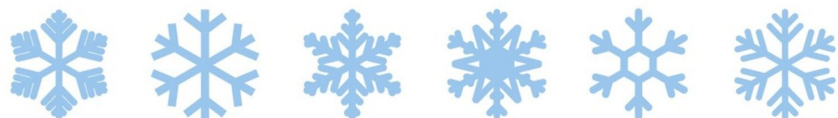
### Supplies

- The Snow outside (or 6-8 cups of Ice in a pan, if there is no snow.)
- Empty 2 liter plastic bottle with a cap
- 1/2 cup very Hot Water
- Pitcher of Ice Water

**Directions:** Pour 1/2 cup of hot water in the bottle. Wait 2 min. Next, put the cap on and place the bottle in snow. (Or if there is no snow, put the bottle in a tray of ice.) Pour ice water over bottle, and watch what happens,

**Why did the bottle collapse?** Because of the change in temperature, the air pressure inside the bottle decreased to the point where it was less than the air pressure outside the bottle. Therefore, the air pressure pushing in was greater than the air pressure pushing out, causing the bottle to be crushed!





## Winter-colorland!



Imagine snow in different colors! Take the family outside and have fun painting your world!

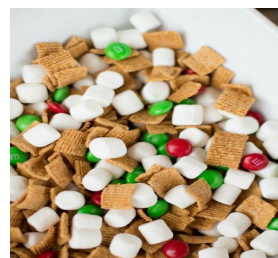
Squirt, squiggle, spray, drip or brush!

**Supplies:** food coloring (or liquid watercolor paint) water, spray bottles or bottles with squirt nozzles, turkey baster, paint brushes

**Directions:** Mix food coloring in water and fill your bottles. You can water down liquid watercolor paint if you want. (It will last longer.) If using a brush or turkey baster, put the paint mixture in something like a bucket. Go outside and enjoy making your yard a winter-colorland. Draw pictures and designs. Squirt to your heart's content!



## Holiday-licious!



## Smores In a Jar!

Make some to eat!  
Make some to give away!

### Supplies

Mason jars with lids, 1 box of Golden Grahams cereal, 1 package of mini marshmallows, one package of Holiday M&M's, and things to decorate your jars with.

### Directions

Dump ingredients into a large bowl and mix with a spoon. Fill the mason jars with the mixture if you are giving some as gifts. Put some in small individual containers for kid size snacks.

Kids can customize the gift jars with decorations. Let them come up with their unique ideas using items from around the house. (Ex. ribbons, tape, markers, drawings on small tags)

This activity is great practice for young kids learning how to pour things into containers.





# Holiday Healthy Smoothie Test

Test out different healthy smoothie ingredients!  
Find out what you like best.

## Supplies: Choose any of the following

### Green

- 1 large ripe banana
- 3/4 cup almond milk (or milk of choice)
- 1/2 cup fresh kale
- 1 Tbsp\_Chia Seeds, or Ground Flaxseed

- 1/2 avocado, pitted
- 1/2 cup fresh spinach
- 3 dates, pitted
- 6 ice cubes

### Red

- 1 cup mixed frozen berries
- 3/4 cup almond milk (or milk of choice)
- 1 Tbsp cocoa powder
- 6 ice cubes

- 1 banana, fresh or frozen
- 1 Tbsp Chia Seeds, or Ground Flaxseed
- 3 Dates, pitted

### Orange

- 1 banana
- 1/2 cup almond milk (or milk of choice)
- 1/2 cup full fat unsweetened or vanilla Greek yogurt (use dairy-free if needed)
- 1 tsp. real vanilla extract (optional)
- 4-6 ice cubes

- 2 oranges

**Directions:** Have kids choose and try what like,  
put in a blender, mix and enjoy!



# Cookie Frosting Art!

Swirl your way through the holiday!  
Kids create art to eat!

**Supplies:** Cutout sugar cookies: either home baked, or plain store bought frosting, or mix frosting yourself

### Option #1 (mix yourself)

- 1lb box of confectioners' sugar, 1/4 cup of light corn Syrup, 1/4 cup water, 1/4 t.vanilla extract

### Option #2

- Store bought can of frosting
- Thin with milk

Three different colors of food coloring gel

## Directions

**Option # 1 Frosting:** Combine sugar, light corn syrup, water, and almond extract in a large bowl and beat with an electric mixer until smooth, about 1 minute. To thin the glaze, add more water 1/2 tsp. at a time, until desired consistency.

**Option #2 Frosting:** Add milk a little at a time to canned frosting until slightly runny.

**Swirling the Cookies:** Place a small amount of frosting in a small shallow dish. Squirt the gel food coloring in abstract lines across the surface. With the tip of a knife, swirl the food coloring lines slightly. Do not stir the gel completely into the frosting. Dip the face of the cookie into the frosting. It will pick up the swirl design. Repeat. Add more frosting and gel as necessary.



## Gumdrop Challenge

What can you build with gumdrops and toothpicks?  
Can you build it tall?  
Can you make a ball?  
This is a construction that you can eat!

### Supplies

Gum drops (substitute apple or cheese chunks for less sugar)  
Toothpicks  
A flat clean surface to work on

### Directions

Push the toothpick into the gumdrops to build your structures.

#### Suggestions:

1. What shapes can you build with 3 gumdrops?  
Add gumdrops one at a time and see what other shapes are possible to build with each number.
2. Build a bridge.
3. Build a tower as tall as you can.
4. Can you build a holiday tree?



## Veggie Train

Got veggies? Extend veggie eating fun to the whole family. Together, you could construct a train. Each child could invent one of the cars.

If a train isn't your thing, come up with animals, monsters, or dinosaurs.

The vegetable possibilities are endless!

### Supplies

All kinds of vegetables.(see photo)  
Toothpicks  
Knives (Adult supervision) or pre-cut vegetables for younger children to work with.





## Spread The Cheer!

Finish this year by spreading some cheer!  
Simple ways to practice kindness.



### Paw Purr-fect!

Make and fill  
a dog or cat treat jar for a  
local shelter and your  
own pet

### Supplies

Empty oatmeal container or other jar, construction paper, markers, a variety of small plastic bottle caps, glue, flat ribbon for a collar, dog or cat treats

### Directions

1. Make sure the container you use is clean and dry
2. Cover the container with construction paper
3. Glue on eyes and noses
4. Draw on whiskers and eyebrows
5. Cut ears from another piece of paper and glue on,
6. Glue on ribbon for collar
7. Glue a plastic cap on for a lid handle
8. Fill with treats and give away.



## Kindness Matters

### Countdown Jar

Make a difference with 25  
acts of kindness!



Sit down with the kids and  
write down 25 things that  
they can do to be kind to  
someone else.

### Supplies

25 small pieces of colorful paper (you could use 3x5 cards)  
A Jar, can, or box  
Pencil, markers or crayons

### Directions

Before December 1st, talk with your kids and ask them to come up with ideas for being kind to someone else. Write each idea on a separate piece of paper. Put the ideas in the jar. Then count the days of December down by pulling their ideas out of the jar and doing what each paper says. For a little extra fun, decorate the jar up festively. (For kid kindness suggestions, check out the resource page.)





# Kindness Countdown

## 25 Random Acts of Kindness

1. Make cards for neighbors
2. Help someone clean up
3. Pick out food to donate
4. Donate 2 shirts from your closet
5. Leave a note for the garbage collector
6. Take cookies to a fire station
7. Play with someone new at school
8. Give someone a compliment
9. Tell someone they're doing a good job
10. Pick up trash outside
11. Make a gift for a friend
12. Call a friend to say Hi
13. Bring flowers to a teacher
14. Wrap up new toys to donate
15. Be last all day
16. Pick up pine cones in a neighbor's yard
17. Clean up a mess you didn't make
18. Send a card to Grandma
19. Take cookies to the neighbors
20. Tell someone you love them
21. Find (at least) one toy to donate
22. Make thank you notes for police officers
23. Donate two books
24. Leave a kindness rock outside
25. Offer someone a hug



## Kindness Rocks!



**Paint a Kindness Rock and place it somewhere in your neighborhood for others to see.**

### Supplies

Acrylic craft paint

A rock big enough to write or draw on

Paint brush

### Directions

Paint something on a rock that will make people smile. You can write something positive like "Be Kind", "Smile", or "You rock!".

Or . . . you could paint a star, a flower, or a smiley face.

When the paint is dry, place it where people passing by will notice it, Maybe your message will pass along a smile and a warm wish on a cold day.



## Salty Snow Sparkle Card



**Experiment with salt and watercolors.  
Use your artwork to make a card to  
send to someone.**

### Supplies

Watercolor paints, brush, salt, glue

Heavy paper (watercolor paper works best) (drawing paper)

### Directions

Paint over your whole paper with big swirls in two or three different colors. While it is still wet, sprinkle salt over your painting. Watch the salt work for a few minutes, and then shake it off. It will look amazing.

When your painting is dry. Fold it in half to make a card and write a cheery message inside. Send it to someone you know.



## Keep the Kindness Flowing Deliver A Dinner



**Put together a basket  
of items for someone's  
dinner and deliver it to  
them with a note that  
says your care.**

Get the kids involved in choosing a meal and shopping for the ingredients. We chose a meal of spaghetti since it didn't have any perishable ingredients, which meant that we could just leave it at a random door.

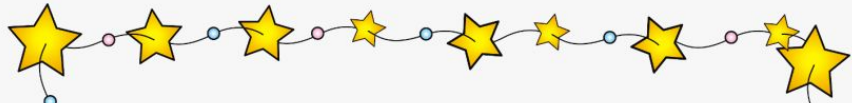
### Other suggestions:

Feed the Birds

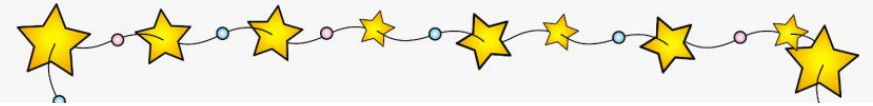
Donate books and toys to a women's  
shelter

Care packages

Donate to a food bank



## Shoot for the Stars!



**Stars  
In Jars**  
Make  
the Holidays  
Sparkle  
with  
Astronomy

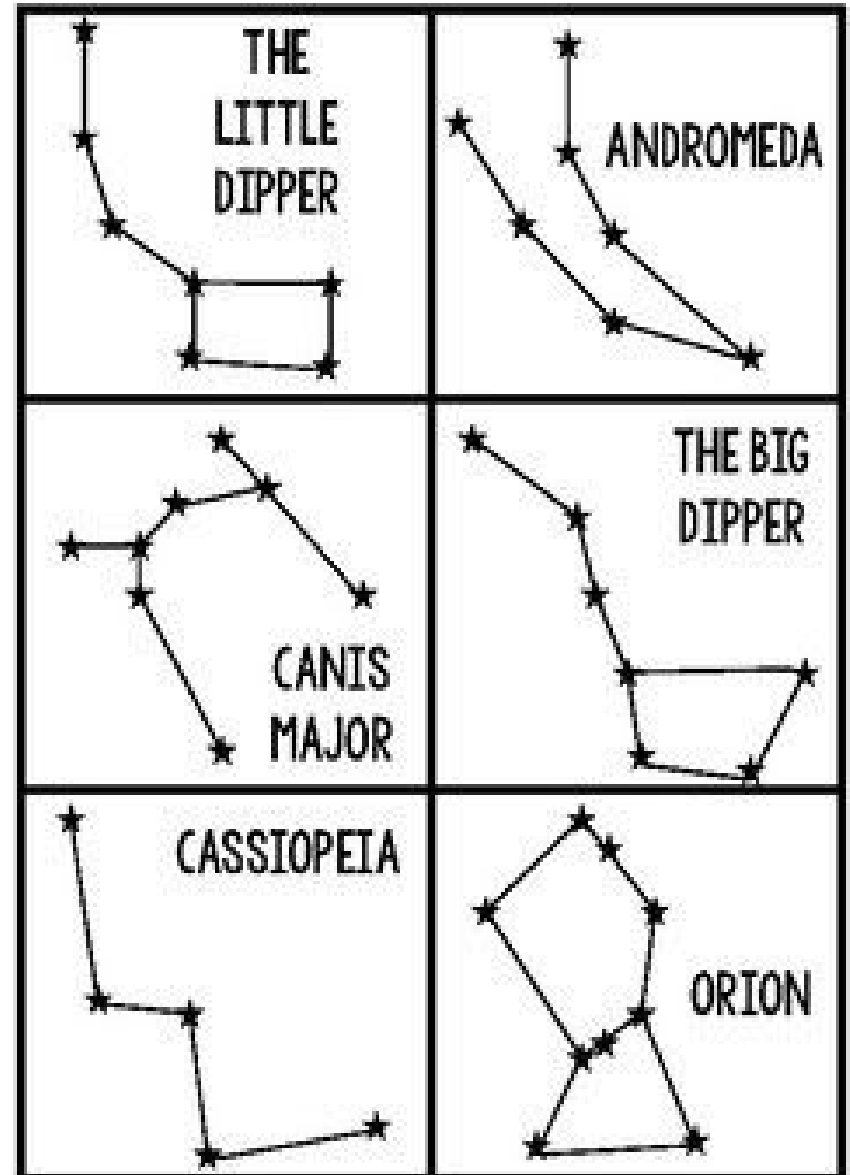
### Supplies

A clear jar, disposable aluminium cake pan (rectangle)  
Battery operated tea light candle, constellation patterns  
bbq skewer or sharpened pencil, towel

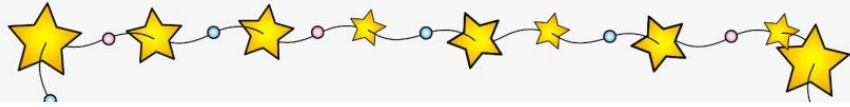
### Directions

1. Parents cut out the bottom of the cake pan. Cut a long rectangle from the foil pan, which would fit into your jar. It should be wide enough to reach the cover of the jar, and long enough to fit around inside.
2. Flatten it down with a spoon.
3. Draw the constellation dots with a Sharpie on the rectangle, and poke the dots through to make the stars.
4. Make lots more smaller holes around the constellations.
5. Roll the foil so that it fits just right inside the jar.
6. When you put the light in, the stars will shine.

(See resource page for constellation patterns)







## Galaxy Painting

Galaxies are big. Paint one together.



### Supplies

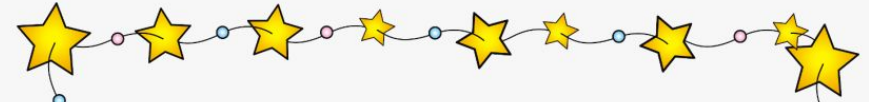
Canvas (any size) If working together go bigger.  
Acrylic craft paints (black, blues, purples, white)  
Paint brushes for everyone.  
Sponge or two  
Toothbrush

### Directions

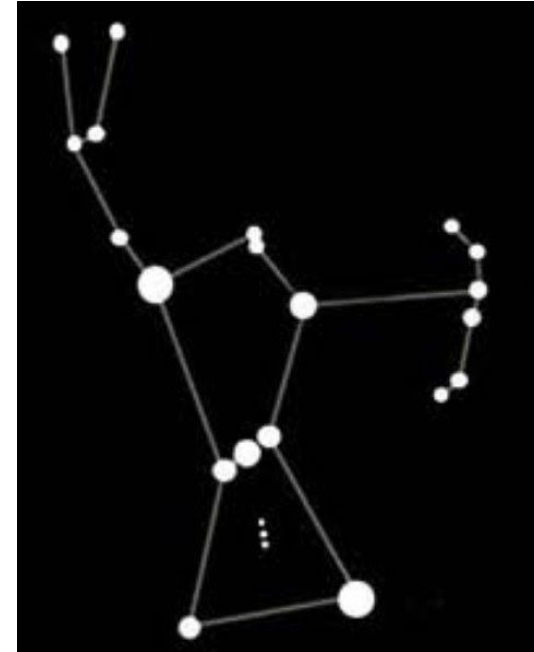
1. Dab spots of color on the canvas randomly



2. Everyone take a brush and begin spreading out the dabs of color, mixing and swirling the paint together until the whole canvas is covered. Add more dots of paint if necessary. Smear a few spots with a sponge,
3. Put white paint on a toothbrush and tap the brush for a sprinkle of stars. Take turns sprinkling.



## What Does This Look Like To You?



### Supplies:

Pictures of different constellations.  
Paper and markers  
Your imagination

### Directions

This constellation happens to be Orion the Hunter. But it doesn't have to be. Your challenge is to imagine something else.

1. Find pictures of constellations.
2. Draw their dots on a piece of paper.
3. Connect the dots differently. What is it now?

Make up a story about your re-imagined constellation.





## Family Star Watching Night



During the Holidays nighttime comes early.

That means this is a perfect time to check out the night sky.

Dress warm and go stargazing with your family.

Find some shooting stars, or possibly planets.

Which stars do you think are brighter than the others?

Which constellations can you identify?

Look up times that the International Space Station will be visible in your area.

Watch for other satellites.

What does the moon look like tonight?



## Zoom Countdown to Noon!

11:00am - 12:00pm

Purchase a Countdown Kit and participate live from your home.

Program:

11:00 - 11:30

Decorating your New Year ball

Make party hats and noisemakers

11:30-11:45

Stomping Out 2020

11:45 - 11:55

Show off your New Year Ball

11:55 - 12:00

Countdown and Ball Drops

12:00pm

Happy 2021!

Purchasing a kit is optional for participation.



## Countdown Kit Activities

### Decorate Your Ball!



### Supplies

Kit includes a (12 inch) beach ball to decorate.

Colored cellophane wrap

### Directions

1. Cover the ball with cellophane wrap to make it shine.
2. Tape it in place
3. Find items and make decorations to add to the ball from around your house. (ribbons, old cards, shiny aluminum foil etc.)
4. Add a string so that you can tie the ball up somewhere for the drop later.(optional) You may just want to toss it in the air and watch it drop!



## Spoon shakers

### Noise Makers

### Supplies

Kit includes 4 spoons for 2 shakers.

2 plastic eggs

Popcorn kernels or beans

You provide: Masking tape, Markers

### Directions

1. Fill the eggs with popcorn
2. Close the egg.
3. Tape the two spoons around opposite sides of the egg.  
(Like the spoons are holding the egg.)
4. Tape the handles of the spoons together.
5. Decorate with markers



**Party Poppers!**  
 Welcome the New Year with A Shower of Confetti!

# Party Hats!

Look Festive!  
 Celebrate the new year in a hat that you decorate.

## Supplies

### Kit includes

- 1 paper party top hat
- 1 gold paper crown
- Crepe paper
- 2021 label
- Ribbons

### You provide

- Markers
- Glue or glue stick
- Other assorted items to decorate with

## Supplies:

Kit includes: Cardboard tube, balloon, wrapping paper cut to fit the tube, confetti

You Provide: Scissors, Masking tape or decorative duct tape, clear tape (Bird seed can substitute for confetti, or make your own confetti with a hole punch and scrap paper))

## Directions:

Wrap the piece of scrapbook paper around each tube, covering the sides completely. Tape into place.

Cut the top off each balloon. Tie a knot on the blowing end of the balloons.

Stretch the cut end of each balloon over one end of each cardboard tube.

Use masking tape to cover the edge where the printed wrap meets the balloon.

Put confetti in the cannon . Hold the cannon firmly in one hand. With the other hand, pull the knotted end of the balloon back and release. Kabamm! Flying Confetti !





## New Kazoo Year!

Buzz away  
to the tune of  
Auld Lang Syne  
as we countdown  
to the end of 2020.



### Supplies:

#### Kit includes:

TP Tube, wax paper, rubberband, stickers

#### You provide:

Markers

### Directions:

Notice that there is a hole punched on one end of the tube.  
On the opening at that same end, fold over a square cut piece  
of wax paper  
Use the rubber band to hold it in place.  
Decorate your kazoo with markers and stickers

### To Use:

Make sure the paper is on tight over the end. It won't make a  
good sound unless the paper is on tight. On the open end, say  
"Do Do Do Do" into your tube to test out the sound.



## Stomp Out the Old NO MORE 2020!



Stomp away  
all your cares  
with  
bubble wrap!

### Supplies:

#### Kit includes:

Bubble wrap

#### You provide:

Your feet

Permanent marker



### Directions:

On the flat side of the bubble wrap, have each member of your  
family write something that they didn't like in 2020. As part of  
the Countdown program, we will Stomp away all our troubles!