

BOOMbox at Home

2-Ingredient Soda Cake



This cake is easy to make and has fabulous texture! Get creative with different flavor combinations: cherry cola + chocolate, ginger ale + lemon, orange + vanilla, cream soda + strawberry... lots of options to try!

Supplies

- boxed cake mix
- can of soda
- cake or cupcake pan
- mixing bowl
- frosting (optional)

Instructions

- Preheat the oven according to the instructions on the boxed cake mix.
- Add the boxed cake mix and the soda to a medium mixing bowl.
- Mix until thoroughly combined.
- Pour the batter into a cake or cupcake pan.
- Bake according to the instructions on the boxed cake mix.
- Let cool. Add frosting if desired. Enjoy!

What will you learn today?

Send a photo of your project to mycreation@skokielibrary.info and we may feature it on social media.

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Zentangles

Zentangles are a fun way to explore patterns as well as practice mindfulness. You don't need a large amount of supplies to do this art exercise, but you can get as intricate as you want!

Supplies

For this project, you will need:

- A pen or pencil
- Paper of your choice
- Colored pencils or pens

Instructions

- On your sheet of paper, start by creating an outline shape. This will serve as the border to your zentangle.
- Choose one or two (or as many as you like) repeating patterns to draw, and begin drawing them freely on your sheet of paper.
- Fill up the outline with the repeating patterns, being as creative as you wish.
- Color in the repeating pattern with your favorite shades and tones to create a masterpiece.

Want to explore more?

Check out [this tutorial from Creative Bug](#) for more Zentangles exploration. Creative Bug is a service that you can access using your library card. It is free and has a large number of other projects to explore as well!

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Paracord Crafts

Paracord is an extremely strong and versatile light-weight rope that was originally used by the U.S. military in the construction of parachutes. Over time, uses for paracord have expanded, and today, paracord is a valuable supply for all sorts of outdoor adventures. As useful as it may be, you probably don't want to carry around a bundle of rope. But how about a stylish bracelet or keychain? Learn how to make cool crafts that can be broken down into cord if needed.

Supplies

- paracord
- scissors
- buckles, carabiners, or key rings
- tweezers or pliers (optional)

Instructions

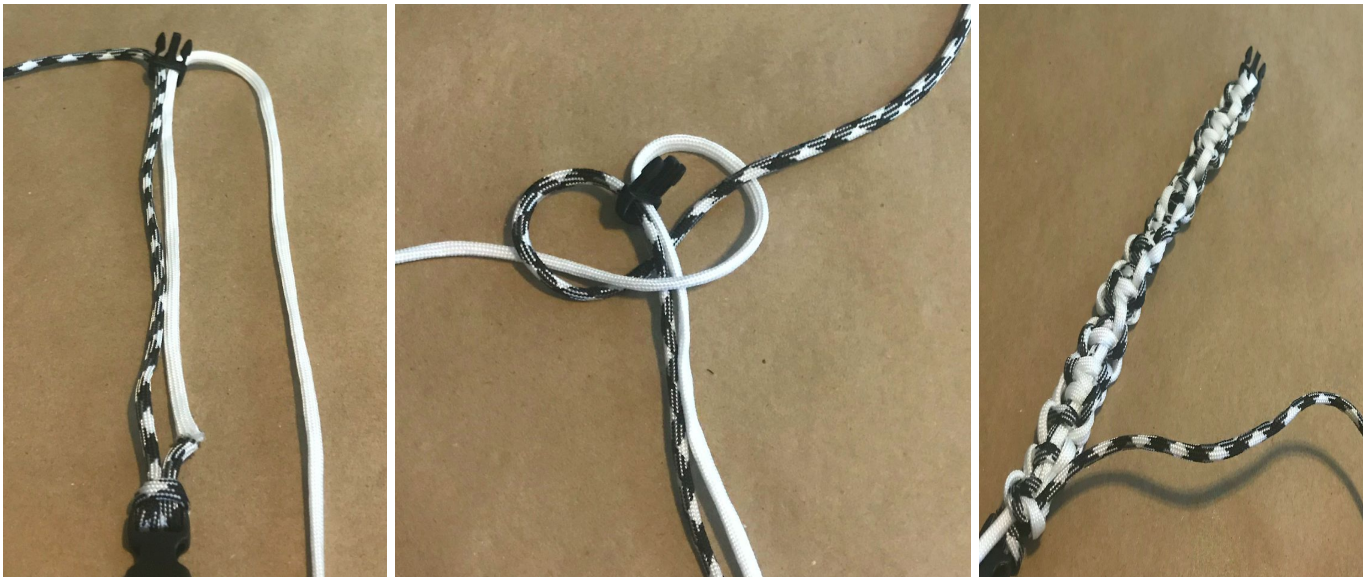
Cobra Bracelet

A great beginner paracord craft is this bracelet, made using the cobra weave. Learning this basic form will give you the foundation to try out dozens of other designs. For this bracelet, you'll need approximately 10 ft of cord. You can use one or two colors. For your first few tries, you may find it easier to catch any mistakes if you use two colors.

- If you're using multiple colors, ask an adult to help you fuse the two cords together. Use a lighter to melt the end of each cord, and carefully press the melted ends together. You can use tweezers or pliers to manipulate the hot ends.
- Measure your wrist.
- Tie the cord onto one segment of the buckle. First, fold the cord in half and thread the middle through the buckle. If you're using a fused cord, you may have trouble threading the fusion point through. In that case, shift the fusion point to one side. Then, bring the two ends of the cord through the loop created by the folded cord. Pull tight.



- Thread the ends of the cord through the other part of the buckle. You may want to clip the buckle together before doing this in order to make sure that both parts of the buckle are facing the right way. Be careful not to let the cords twist.
- Set the length of your bracelet. Add one inch to your wrist measurement, and position the two parts of the buckle that far apart. The extra accounts for the added bulk of the weave and ensures that your bracelet won't be too tight.
- Start weaving your bracelet! At this point, you should have two central cords between the buckles and two tails, one on either side of the central cords. Make a loop with one tail going **over** the central cords and a loop with the other tail going **under** the central cords. Pull the end of each tail tight through the loop created by the opposite tail.
- Repeat, alternating which tail goes under and which goes over. If you forget to alternate, your bracelet may begin to twist. Just undo that knot and redo it the other way.
- When you've reached the end, trim any excess cord, and ask an adult to help you secure the ends by melting them with the lighter.



DNA Keychain

Twisting may be a sign of mistakes in the cobra bracelet, but this design takes advantage of this twist to form a DNA-like helix. Depending on how long you'd like your keychain to be, you'll likely need around 3 ft of cord. As with the bracelet, you can choose to use one or two colors.



- If necessary, fuse your two colors of cord together as described above.

- Fold the cord in half, and pull the loop through your keyring. Bring the ends of the cord through the loop and pull tight.
- Decide roughly how long you'd like your keychain to be. From that point, make a loop with one tail going **over** the central cords and a loop with the other tail going **under** the central cords. Pull the end of each tail tight through the loop created by the opposite tail.
- Repeat, this time not alternating. If you notice that your keychain is not twisting, undo your most recent knot and redo it the other way.
- When you've reached the end, trim any excess cord, and ask an adult to help you secure the ends by melting them with the lighter.



Run out of cord? You can always use the lighter to fuse on more. Strategically place the fusion points so that they are covered.

Want to explore more?

These are just a few examples of the different crafts you can make with paracord. Check out these Youtube channels to learn more knots, patterns, and projects.

- [Paracord Bracelet](#)
- [Paracord 101](#)
- [BoredParacord](#)

What will you learn today?

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Wax Seals

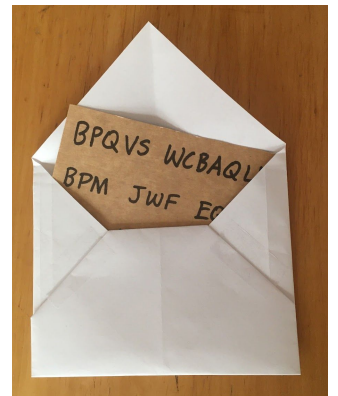
Wax seals have been used for centuries to seal letters closed. They are used to prove that the letter is unopened. When wax seals are personalised with a seal stamp, they are used to prove the identity of the sender.



Warning: This activity requires melting wax. Adult assistance required.

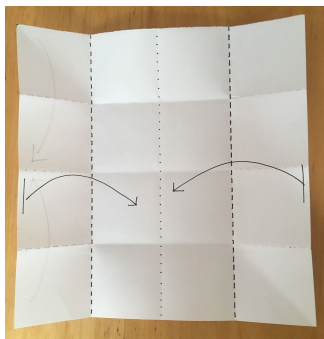
Supplies

- paper
- crayons or sealing wax
- a heat proof and waterproof container
- pan with boiling water, or hair dryer
- a seal stamp to decorate your wax seal (optional: you can also design a personalised stamp on [Tinkercad](#) and print it out using the [Skokie Library 3D printing service](#))
- an envelope or extra paper to fold your own envelope (optional)

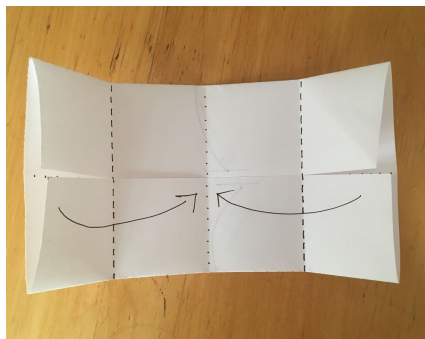


Instructions

- Write a letter with [a secret message](#). You might want to try using invisible ink or a cipher to make your message even more secure.
- Fold the letter so that the two side edges meet at the middle. Make another fold so that the top and bottom edges meet at the middle. Alternatively, you can insert the letter into an envelope.

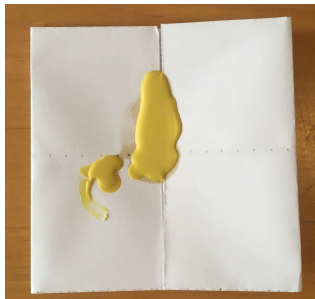


Step 1 to fold the letter



Step 2 to fold the letter

- Remove the paper wrapping from a crayon and break it into little pieces. Place the crayon pieces into your heat proof, waterproof container. One crayon is enough to make one wax seal.
- Ask an adult to help you melt the crayon pieces. They can either melt the crayon by placing the container over boiling water or by heating it with a hair dryer.
- Pour the melted crayon wax onto the middle of the letter or the envelope, and wait several minutes for it to harden.
- If you want to use a stamp to decorate the wax seal, you can dip the stamp in water and press it into the blob of melted crayon wax. Leave it in on top of the wax, and once the wax has hardened, carefully remove the stamp.



Want to explore more?

- Tamper evident technology lets you know if someone has been trying to get into your things. Other examples of tamper evident technology include foil seals on medicine bottles, safety buttons on food jars, and ink tags in clothes in stores.
- You can go to [the Melted Crayons web page from Crayola](#) for ideas on other things to do with melted crayons.

What will you learn today?

Send a photo of your project to mycreation@skokielibrary.info and we may feature it on social media.

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Invisible Ink

Invisible ink is a great way to keep messages hidden. Unless someone knows that invisible ink was used, they'll have no idea that the message even exists! Did you know that there are several types of invisible ink? Learn about a few of the options and how they work with this guide. Then, apply your knowledge by writing or revealing your own secret messages!



Chemical Reaction

Supplies

- paper
- water
- baking soda
- paint brush
- dark colored juice, like grape or cranberry
- sponge or cotton swabs

Instructions

- Mix equal amounts of baking soda and water.
- Use a paintbrush to paint your message on the paper with the mixture. Let the paper dry completely.
- To read the message, use a cotton swab or sponge to wipe the juice across the page. The message will reappear!

Explanation

The dark colored juice contains pigments that act as pH indicators. Because baking soda is a base, or a substance with a high pH, it reacts with the pigments in the juice to change the color of the writing.

This is a self-destructing message! Because all of the liquid damages the paper, you may not be able to read this message more than once.

Heat Reveal

Supplies

- paper
- lemon juice, milk, or baking soda solution
- paint brush
- light bulb or other heat source

Instructions

- Use a paintbrush to paint your message on the page with the lemon juice, milk, or baking soda solution. Let the paper dry completely.
- To read the message, hold the paper over a heat source, like a lightbulb. As the paper gradually heats up, the message will be revealed!

Careful! Make sure your heat source isn't strong enough to catch the paper on fire.

Explanation

The liquids (lemon juice, milk, or baking soda solution) aren't visible when they dry, but they do slightly damage the structure of the paper. This isn't noticeable at a glance, but when the paper is heated, the damaged areas are the first to start burning. As the message is slightly charred, it becomes more visible. This method works with many different liquids (even urine). Try out different liquids to see what else works.

Wax Resist

Supplies

- white paper
- a white crayon
- paint brush
- watercolor paint

Instructions

- Write your message on the paper using the white crayon.
- To read the message, paint over the crayon with watercolor paint. The message will remain white while the surrounding paper takes on the color of the paint.

Explanation

The wax of the crayon creates a physical barrier that protects the paper underneath from the paint. You may have used a similar technique in your own art projects. In fact, even professional artists use a supply called masking fluid that works using the same principle.

Texture

Supplies

- paper
- salt
- water
- paint brush
- pencil

Instructions

- Make a saturated saltwater solution by dissolving as much salt as you can in some hot water. If the water you're using is very hot, you may want to ask an adult for help.
- Use the paintbrush to paint your message on the paper with the saltwater solution. Let the paper fully dry.

Explanation

As the solution dries on the paper, it forms tiny salt crystals. The crystals are hard to see at a glance, but they have a more rough texture than the rest of the paper. This texture picks up more graphite from the pencil lead, making the message darker. Try touching the message before revealing it. Can you feel the texture difference? This option may be easier for someone to detect than the other types of invisible ink, but it also uses the most readily available materials.

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Oobleck

Oobleck is a fun and non-toxic alternative to slime. It behaves very strangely, and playing with it will teach you about the science of non-Newtonian fluids.

Supplies

Here is what you will need:

- 1 cup cornstarch
- ½ cup water

You might also choose to use:

- Food dye to turn your oobleck a bright color
- A plastic bag or a balloon to store your oobleck

Instructions

Here is how you can make oobleck:

- If you are using food dye, mix it into the water.
- Stir the cornstarch into the water.
- Add more cornstarch if you want a thicker oobleck, or more water if you want the oobleck to be runnier.
- Poke the oobleck with your finger. What does it feel like?
- Put some oobleck in your hand and give it a squeeze. What does it do?
- Rest your hand on top of the oobleck and let it sink down. What happens to the oobleck?
- Put the oobleck inside a plastic bag or a balloon. You can keep playing with it another day or use the oobleck-filled bag like a stress ball.

Want to explore more?

- Usually fluids flow downwards, like when you pour milk out of a carton. They also move around when something suddenly happens, like when you cannonball into a swimming pool.
- Non-Newtonian fluids don't behave like other fluids. They will flow like water when you move them slowly. But if you put stress on them, like hitting or squeezing them, they might become even runnier or turn into a solid.

What will you learn today?



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Making Fun Faces with Food

Different kinds of foods have different kinds of nutrients to help us grow and stay healthy. Make nutritious meals fun by using lots of different kinds of ingredients to make a face on a plate.



Supplies

Here are some ingredients you can use:

- A **complex carbohydrate** to give you a slow source of energy. This can include whole grains, like whole grain bread, brown rice, or oats, or other sources of starch like plantains, maize, or potatoes.
- A **simple carbohydrate** to give you a fast source of energy. This can include sweet vegetables, like bell peppers and frozen sweet corn, or sugary fruits like apples or bananas.
- A source of **fat** to help you build healthy cells. This can include nuts, seeds, avocados, egg yolks, and cheese.
- A source of **protein** to help you build muscle cells. This can include beans, nuts, eggs, a can of fish, meat, or a meat replacement product.
- A source of **fiber** to help you move waste out of your body. This can include leafy greens like spinach or collards, or other unprocessed foods like whole grains, beans, fruits, and vegetables.

All of these different kinds of foods have different **vitamins and minerals** as well.

Instructions

Turn your ingredients into a fun meal:

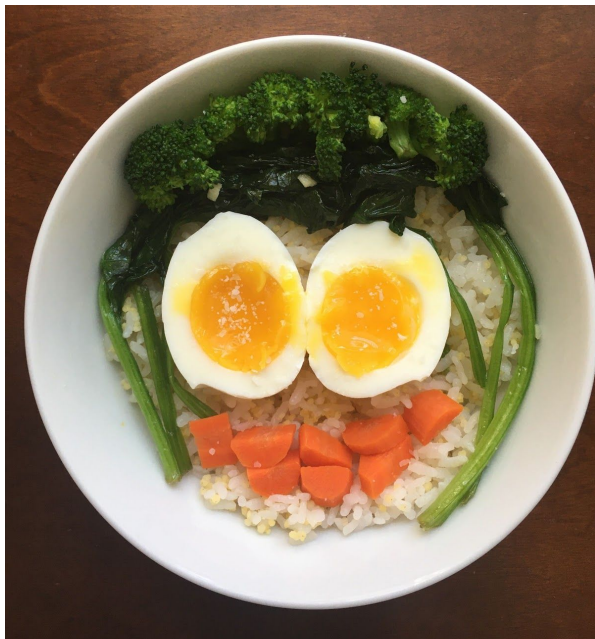
- Place a layer of carbohydrates and/or vegetables on the plate. This will act as a canvas for the rest of the ingredients.
- Ask an adult to help you slice up the other ingredients into smaller pieces and place them around the plate.
- Place one ingredient in the middle of the plate to be the nose. Use the other ingredients to make two eyes above the nose and a mouth below the nose.
- You can make the face even more special by adding more ingredients to create hair or glasses.
- Eat and enjoy!

Want to explore more?

Try out different combinations to make different kinds of healthy meals.

- Use toast, a nut spread, and sliced fruit to make a dessert shaped like a dog or a cat face.
- Bake cheese and vegetables on top of flatbread or a tortilla to make a funny face on a pizza.

Before you chow down on your tasty creations, count out loud how many types of foods are on your plate. Think about how many colors you've included in your meal. Can you guess what kinds of nutrients you will be eating?



This face has:

- a canvas made of rice and millet
- a mouth of carrots
- hair made of broccoli and spinach
- eyes made of boiled eggs



This face has:

- a canvas made of oats
- a beak made of frozen strawberries
- feathers made of bananas
- eyes made of peanut butter with frozen blueberries on top

What will you learn today?

Send a photo of your meal to mycreation@skokielibrary.info and we may feature it on social media.

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Pudding Paint

Paint can get very messy. Avoid some of the hassle by making paint that's food-safe and easy to clean up. This project is fun for the whole family, from toddlers making their first paintings to adults who just want an excuse to finger paint again.



Supplies

- vanilla pudding or plain or vanilla yogurt
- food coloring
- containers (1 per color)

Instructions

- Separate your pudding or yogurt into several containers, one for each color of paint you want to make. You may also want to have a few extra containers available to mix your paints with each other.
- Add food coloring to the pudding or yogurt. Mix until you achieve the color you want.
- Use your fingers or palette knives to make art with your edible paint!



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Kinetic Sand

Play in the sand all year with this fun sensory toy!

Supplies

- play sand
- water
- dish soap or laundry detergent
- corn starch
- container with a lid
- food coloring, dye, glitter, or other decorations (optional)

Most bags of play sand are large. Ask an adult to set aside a portion to use for this project so that you don't have to struggle with a heavy bag.

Instructions

- For best results, bake your play sand to ensure that it is as dry as possible.
- In a large container, mix 5-7 cups sand, 1 cup cornstarch, 1-4 teaspoons dish soap or laundry detergent, and water as needed to reach desired consistency.
- If you'd like, add food coloring, dye, glitter, or other decorations to make your sand more unique.
- Play! Add additional water as needed, and store in an air-tight container when not in use.



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Zucchini Papyrus

Egyptian papyrus wasn't made with a pulp, rather, by overlapping and drying strips of the papyrus reed plant. This project does the same with zucchini! By cooking and pressing strips of zucchini together, you can create bonds from the cellulose molecules.



Supplies

You will need:

- a zucchini (or other vegetable)
- a microwave-safe plastic container with a lid
- a microwave
- a knife for cutting vegetables
- newspaper
- cloths or paper towels
- a flat, heavy object, such as a dictionary
- a cutting board

Instructions

- Cut your zucchini into strips about a quarter of an inch thick.
- Fill the microwave-safe plastic container with enough water to cover the bottom and place your zucchini strips in. Secure the cover. Steam the strips in the microwave until they are soft but not falling apart. Alternatively, you can also steam the zucchini in a pot on a stovetop.
- Lay out your cutting board and place a stack of newspaper on top. On top of that, place a cloth. Lay out your zucchini strips on the cloth so that they are overlapping in a criss-cross pattern.
- Place another cloth on top and then more newspaper. Place your flat, heavy object on top of the stack. You can pile more objects above it if you feel like you need more weight.
- After an hour, replace the wet newspaper with dry newspaper. Replace the weights and let the stack sit overnight.
- In the morning, your vegetables will be flat but still wet. Replace the cloth in the stack. Do this multiple times a day until the vegetables dry. When dry, you'll have vegetable papyrus!

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