

ADVENTURE PACKS

AGES

Children 5–8

PROGRAM DESCRIPTION

Adventurers need their gear to go exploring! Children make an adventure journal, a compass, and a pouch in which to hold their treasures. Make all three crafts during the same program, or separate them into three short sessions. Works well to pair with map-related crafts and books. Suggested runtime: 30 minutes per craft.



Image source: Greta Funk of Nortonville Public Library, Nortonville, KS

MATERIALS AND PREPARATION

DIY Compass

Materials:

- Plastic bottle caps or slices of cork/foam (1 per participant)
- Sewing needles (1 per participant)
- Strong bar magnets (length smaller than diameter of condiment cup) (1 per participant)
- Condiment cups (diameter wider than the needle) with lids (1 per participant)
- Water
- Pliers

Assembly:

- Step 1: Magnetize the needle. Rub the magnet over the needle several times in one direction (towards the tip).
- Step 2: If using cork slices or foam, push the needle through the cork.
- Step 3: Place cork in a condiment cup full of water. (Or place bottle cap face down in water and lay the needle across the top)
- Step 4: The needle will point north if you're in the northern hemisphere; south if you're in the southern hemisphere.
- Step 5: Empty the cup of water. Children can use it to store the components of their compass for emergencies.

Adventure Journals

Materials:

- Construction paper
- Hole punch
- Blank paper
- Yarn or ribbon
- Plastic tapestry needles
- Luggage tags (optional)
- Art supplies: Crayons, markers, stickers, etc.

ADAPTATION:

For younger children, premake pouches for them to decorate.

TIP:

To avoid injury, enlist a teen or adult volunteer push the needle through the cork or foam.

TIP:

Alternatively, purchase plastic pencil pouches of the kind that can slip into binders (ideally with the zipper on the front instead of the side). The holes are already installed and ready to be threaded into a pouch, backpack, or fanny pack.

ARTS & CRAFTS

Assembly:

- Fold construction paper or scrapbook paper in half.
- Fold a few sheets of printer paper in half, then line them up inside the cover.
- Punch holes along the folded spine.
- Precut lengths of yarn and use plastic darning needles to thread them.

During the program:

- Talk about the types of things you can write in an adventure journal.
- Demonstrate how to thread the yarn through the holes and tie a knot (volunteers may be helpful here).
- After they have sewn up their journals, they decorate with whatever art supplies you have on hand.

Collection Pouch

Materials:

- Construction paper, scrapbook paper, cardstock, or felt, approximately 8.5x11 inches
- Four pieces of yarn or ribbon, each approximately 11 inches long (longer for the two handle straps if desired)
- Hole punch
- Markers, stickers, stamps, etc. for decorating (optional)
- Large needle if using felt

Instructions:

- Fold paper or felt in half to create the base of the collection pouch.

If using paper:

- Cut the paper to the desired shape/size, then punch holes along the outside edge.
- Thread yarn or ribbon through the holes to close up the sides of your collection pouch, knotting at each end.
- Add holes at the top for the strap.
- Children can decorate their pouches with markers and stickers to their liking.

If using felt:

- Use a large needle and yarn or ribbon to sew the sides of the pouch closed.
- Sew handles on the top of the bag for carrying or wearing.

UNIQUE SPACE AND/OR PERSONNEL NEEDS

Volunteers would be helpful for knot-tying, pushing needles through foam, and/or threading the pouches.

RESOURCES

Web

“How to Make a Compass” from *Steam Powered Family* blog: <https://bit.ly/3JA2OAo>

“How to Make a Compass” from *kidsactivities.com*: <https://bit.ly/3r5HTz4>

“How to Make Simple Handmade Books” from *Babble Dabble Do*: <https://bit.ly/3Xuqo7q>

ARTS & CRAFTS

Books

Picture Books

The Map of Good Memories / El mapa de los buenos momentos (2017) by Frano Nuño and illustrated by Zuzanna Celej. Separate Spanish and English editions.

My Heart Is a Compass (2018) by Deborah Marcero

The Boy Who Loved Maps (2022) Kari Allen

Mapping Sam (2018) by Joyce Hesselberth

A Map into the World (2019) by Kao Kalia Yang and illustrated by Seo Kim

Run, Little Chaski! / ¡Corre, pequeño Chaski! (2021) by Mariana Llanos and illustrated by Mariana Ruiz Johnson. Separate Spanish and English editions.

A Song of Frutas / Un pregón de frutas (2021) by Margarita Engle and illustrated by Sara Palacios. Separate Spanish and English editions.

The Boy of Maize / El niño de maíz (2022) by Mario Bencastro. Bilingual.

Early Readers

Blast Off to Space City / Despegan a la ciudad del espacio (Baker & Taylor #4) (2022) by Candy Rodó. Separate Spanish and English editions.

Treasure Map: An Acorn Book (The Adventure Friends #3) (2023) by Brandon Todd and illustrated by Gloria Félix

Making Your Own Maps (2022) by Susan Ahmadi Hansen

Printables

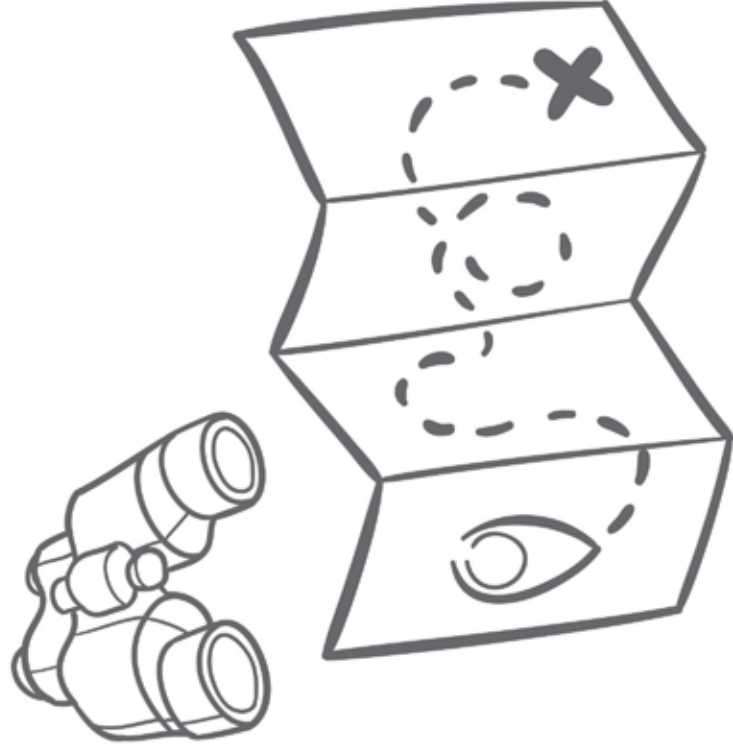
Adventure Journal Cover (in Spanish and English)

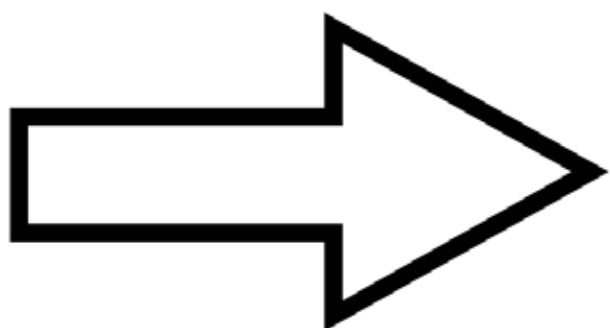
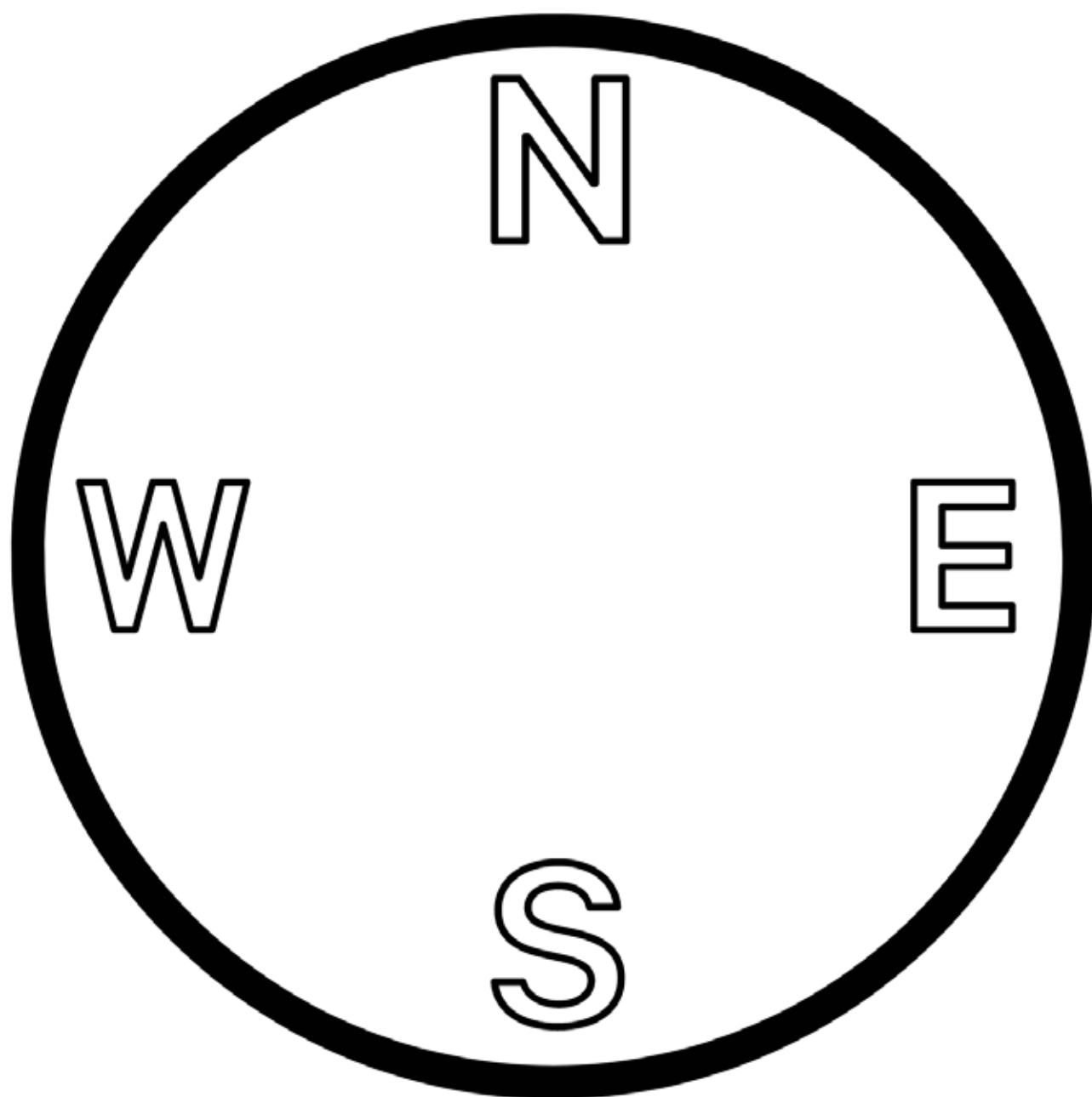
Compass Template

Adventure Calls (in Spanish and English)

MY ADVENTURE JOURNAL

This journal belongs to:





ADVENTURE CALLS

What type of adventure could you have in each place?













LLAMADAS DE AVENTURA

¿Qué tipo de aventura tendrías en cada lugar?













THE WONDERS OF YOUR SUMMER

AGES

Tweens 9–12

PROGRAM DESCRIPTION

Who's taking a trip this summer? In this program, tweens build a wonder from their summer, whether it's something they saw (or will see) locally or on a far-flung vacation. Creations are displayed in the library so other patrons can vote. The seven creations with the most votes become your library's unique Seven Wonders of the Summer. Hold an event to announce the seven winners and give prizes. Suggested runtime: For 90 minutes in-person building.

MATERIALS AND PREPARATION

Preparation:

- Decide on a travel theme or a local theme.
- Decide whether you want to limit submissions to built wonders or natural wonders.
- Decide if you will hold an in-person program or let participants use materials from home.

For an in-person program:

- Decide on the materials to make available. The wonders could be made out of Legos, posterboard, boxes, paper, recycled milk cartons, cans, pool noodles, etc.
- Decide on a time frame. Will this be a 30-minute building challenge or a two-hour one?
- Decide if participants will work individually or in groups.
- Provide building materials in accessible containers. If materials are scarce, limit how many of each item a participant or group can take.

For take-home programs:

- Decide on parameters to even the playing field and/or provide take-and-make kits to everyone.
- Create and print contest rules with a clear deadline.
- Whether in person or not, provide bases for the wonders so participants have a way to transport them.
- After patrons vote on the best seven wonders, hold a party to announce the winners and give prizes.

TIP:

You could also focus on new or ancient world wonders. Hold a quiz to build excitement. Who can name the Seven Ancient Wonders of the World? Who can name the Seven Modern Wonders of the World?

TIP:

This is a great way to use up recyclables or extra craft supplies.



RESOURCES

Web

30 Greatest Man-Made Wonders of World–Travel video. YouTube: <https://youtu.be/YEok4Ykw204>
7 Natural Wonders of the World from WorldAtlas: <https://bit.ly/3NW2Zsl>

Books

Nonfiction

Amazing Landmarks (2022) by Rekha S. Rajan and illustrated by Alex Asfour

Early Readers

How the New Seven Wonders of the World Were Built (2023) by Jiri Bartunek et al. (middle grade)

How the Seven Wonders of the Ancient World Were Built (2021) by Ludmila Henkova and illustrated by Tomas Svoboda (middle grade)

Printables

Modern Wonders Worksheet (in English and Spanish)

WHERE ARE THE MODERN WONDERS?

Write the name of the country for each of the seven modern wonders



1 _____



5 _____



2 _____



6 _____



3 _____



4 _____



7 _____

¿DÓNDE ESTÁN LAS MARAVILLAS MODERNAS?

Escribe el nombre del país para cada una de las siete maravillas.



1 _____



5 _____



2 _____



6 _____



3 _____



4 _____



7 _____

ARTS & CRAFTS

VACATION TILE COASTERS

AGES

Tweens 9–12

Teens 13–18

PROGRAM DESCRIPTION

Where did you go on vacation, or where do you wish you could go? Teens and tweens make a keepsake coaster about their travels, or they make mini vision-board coasters about where they want to go. Any type of paper works for the top of the tile, whether printed photos, magazine photos, old maps, scrapbook paper, etc. Easily adapted to take-and-make kits. For an in-person program, prepare activities to keep participants occupied while the coats of Mod Podge dry. Suggested runtime: Two 90-minute sessions.

MATERIALS AND PREPARATION

Materials:

- 4x4-inch stone/ceramic tiles (1 per participant)
- Mod Podge Gloss
- Cork or felt for backing (self-adhesive or with strong glue)
- Waterproof sealer
- Photos, magazines, or old maps
- Scissors
- 1-inch paint or sponge brushes

Preparation:

- Cover tables to protect them from Mod Podge and polyurethane.
- Precut felt or cork squares slightly smaller than the tile.
- Gather old magazines, maps, or postcards.
- Make sure the area is well ventilated if using spray adhesives (or take outside).

To make:

1. Cut square pieces of paper to fit the tiles.
2. Add a layer of Mod Podge to the top of a tile; place the paper down and smooth. Let dry for 15–20 minutes.
3. If you plan to add additional details, do so now.
4. Seal each tile with 2–3 coats of Mod Podge, letting dry between coats.
5. Trim cork to fit the back of the coasters. Glue on with preferred heavy-duty adhesive. Clamp or

TIP:

For time-limited programs, give away sample Mod Podge bottles for participants to finish coating at home. Encourage them to submit photos of their tiles in use!

TIP:

Consider using a heat gun or blow dryer to speed up the drying process.



Image source: Megan Edwards of Mooresville Public Library, Mooresville, IN

ARTS & CRAFTS

press the coaster for 1–2 hours to ensure the cork adheres to the tile completely.

6. Once dry, apply polyurethane or high heat enamel spray to the tops of the coasters. Let dry for several hours before using.

UNIQUE SPACE AND/OR PERSONNEL NEEDS

Solo-librarian friendly

RESOURCES

Web

DIY Tile Coasters from Mod Podge Rocks: <https://modpodgerocksblog.com/diy-tile-coasters/>

TIP:

Give patrons the option to leave coasters to dry in the library before taking them home.

TIP:

Have puzzles or games prepared to pass the time while participants wait for the Mod Podge coats to dry.



Image source: Megan Edwards of Mooresville Public Library, Mooresville, IN

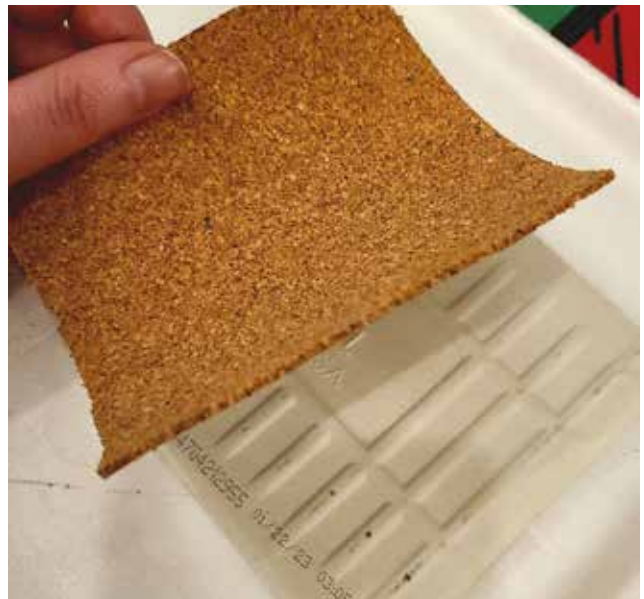


Image source: Megan Edwards of Mooresville Public Library, Mooresville, IN

TRAVEL ADVENTURE MEMORY BOARDS

AGES

Tweens 9–12

Teens 13–18

Adults

PROGRAM DESCRIPTION

Participants make a board that holds rotating pictures, postcards, and other memories from their adventures. This craft can be adapted for tweens and above, and made to fit any theme. Also works for take-and-make kits. Suggested runtime: 60 minutes.

MATERIALS AND PREPARATION

Materials:

- Foam core sheets
- Fabric
- Ribbon or flat elastic
- Sewing pins or hot glue
- Push pins or map pins
- List of instructions for take-and-make kits (optional)

Preparation:

- Precut fabric pieces a few inches larger than the foam core sheets.

Assembly:

- Pull the fabric tight over the foam core using steel sewing pins.
- Cut the ribbon or flat elastic into different lengths by measuring across the board diagonally.
- Place each ribbon on the board diagonally, securing it with steel pins on the edges of the foam core.
- Place map pins, push pins, or decorative pins at each section where the ribbon or elastic meets.

TIP:

For a vision-board program, provide magazines for people to cut out pictures.

TIP:

Provide different fabrics for participants to choose from.

TIP:

For more take-and-make kit ideas for teens and 20-somethings, see East Baton Rouge Parish Library's YouTube channel: <https://www.youtube.com/@EBRPLTeens>



Image source: Brandi Burton from East Baton Rouge Parish Library System in Baton Rouge, LA

RESOURCES

Books

Travel Nonfiction & Memoir (Adults)

Sigh, Gone: A Misfit's Memoir of Great Books, Punk Rock, and the Fight to Fit In (2020) by Phuc Tran

A Very Punchable Face: A Memoir (2020) by Colin Jost

The Puma Years: A Memoir of Love and Transformation in the Bolivian Jungle (2021) by Laura Coleman

The Catch Me If You Can: One Woman's Journey to Every Country in the World (2022) by Jessica Nabongo

Antarctica: A History in 100 Objects (2022) by Jean de Pomereu and Daniella McCahey

Unforgettable Journeys: Slow Down and See the World (2020) from DK Eyewitness

People We Meet on Vacation (2021) by Emily Henry

Spirit Run: A 6,000-Mile Marathon Through North America's Stolen Land (2020) by Noé Álvarez

Airplane Mode: An Irreverent History of Travel (2023) by Shahnaz Habib

COMPETING ROBOTS

AGES

Children 5–8

Tween 9–12

PROGRAM DESCRIPTION

Robot adventure competitions, anyone? This program points you to instructions for making two simple robots. The first—and simplest—is a DIY hexbug nano made out of the head of a toothbrush. Once constructed, children create race tracks out of recyclables to hold hexbug races. The second is a more complex—but still relatively simple—scribble bot. Once constructed, hold scribble bot art contests. This program can also be adapted in many ways. In a more involved program, children build their own robots out of found materials and/or recyclables, then attach a motor to see how their robot moves (these unique robots also make for excellent library displays; inventors name their robots and write where the robot will go on its next adventure). Be sure to have volunteers on hand to help with the tech. Suggested runtime: 60–90 minutes.

MATERIALS AND PREPARATION

For DIY Hexbug Nanos

Materials for each hexbug:

- Toothbrush head
- Vibrating motor with attached leads
- Cell batteries (size 2032)
- Glue dots (2)
- Rainbow loom rubber bands (2)

Preparation:

- Buy inexpensive toothbrushes in bulk; saw their heads off
- Order supplies
- Make a test robot to show as an example!
- See Resources for detailed instructions.

For Doodle Bots

Materials:

- Recycled round containers (any kind)
- Hot glue gun and glue sticks
- Extra glue sticks or erasers (for offset weight)
- Masking tape
- Markers
- AA battery

TIP:

For robot assembly kits that include all the parts, check out Kidz Robotix or Green Science from 4M, or a DC motors kit.

ADAPTATION:

Consider a maker faire event, where local engineers, inventors, or crafts people talk about what they make and how they make it.

TIP:

For the most basic moving robot, you'll need a mini DC motor with +/- leads that attach to a battery, plus a way to attach the motor to the body of the robot. Mini DC motors are relatively inexpensive; they come in vibrating and revolving versions.

TIP:

If running a more complex program in which children take apart found materials, require gloves and safety goggles..

WARNING:

Cell batteries and rubber bands are a choking hazard. If younger children are present, extra monitoring is required.

ARTS & CRAFTS | STEM

- AA battery holder
- Wire
- DC motor
- Switch
- Googly eyes and pipe cleaners (optional)

See Resources for detailed instructions.

UNIQUE SPACE AND/OR PERSONNEL NEEDS

A room with tables and chairs.

RESOURCES

Web

“DIY Hexbug Nano” from *Crafting a Green World*: <https://bit.ly/442gqNd>

How to Make an Art Bot from *Makerspaces.com*: <https://bit.ly/3PxTtx3>

“Scribble Bots: Make Your Own Drawing Robot” from *Questacon* on YouTube: <https://bit.ly/3PwwXVf>

“How to Build Coffee Bots” from *Make Magazine*: <https://bit.ly/3NThzRu>

Robot Books

Robo-Motion: Robots that Move Like Animals (2021) by Linda Zajac (early reader NF)

Henry Heckelbeck Builds a Robot (2022) by Wanda Coven and illustrated by Priscilla Burris (early reader F)

Becoming Bionic and Other Ways Science Is Making Us Super (2023) by Heather Camelot (middle grade NF)

The Brainiac's Book of Robots and AI (2023) by Paul Virr and illustrated by Harriet Russell (middle grade NF)

Bots! Robotics Engineering (Build It Yourself) (2019) by Kathy Ceceri and illustrated by Lena Chandhok (middle grade NF)

Totally Real Tech That Will Change Life as You Know It (2022) by Stephanie Warren Drimmer (middle grade NF)

TIP:

CSLP programming is not tied to specific books. If your budget is limited, search your current collection for books—old and new—that fit a robot theme!

IN A WORLD...BUCKET LISTS AND FANTASIES

AGES

Teens 13–18

Adults

PROGRAM DESCRIPTION

Participants assemble a bucket list journal to record where they want to go and what they want to do. Journals can be simple, or you could combine this with a paper-making and/or bookbinding program. Alternatively, provide discarded books to turn into altered book journals. See Resources for journal prompts to kickstart the imagination, which can also be used on social media as online conversation starters.

This program can also be modified to focus on fantasy and world-building. Provide blank journals in which patrons answer more open-ended questions. What does their ideal world look like? If not limited by reality, what fantastical adventure would they take?

For a passive program, set out blank journals next to a display of travel and bucket list-inspired books. Or hold a passive adventure contest: Two different adventures (or fantasy books) compete for “most interesting” every week. At the end of the summer, crown one as the ultimate adventure and create a photo booth for patrons to photograph themselves doing that thing.

Suggested runtime: 60 minutes.

MATERIALS AND PREPARATION

For the bucket list journals:

- Printed copies (see Resources)
- Stapler
- Construction paper or scrapbook paper for a cover (optional)

For the cover collage:

- Inexpensive journals or composition books:
- Old maps and magazines
- Misc. art supplies: Ribbons, stickers, stamps and ink pads, etc.
- Scissors
- Glue or Mod Podge
- Clear contact paper (to protect the finished collage)
- Access to a color printer, for printing photos from phones (optional)

ADAPTATION:

For multigenerational programs, pair patrons up according to place (one who wants to go and one who has been) for a conversation starter. Or let families work together to come up with a summer bucket list, and create a display of books about local family adventures.

TIP:

Also makes a great take-and-make kit. Include a QR code with instructions.



Image source: Brandi Burton of East Baton Rouge Parish Library System in Baton Rouge, LA

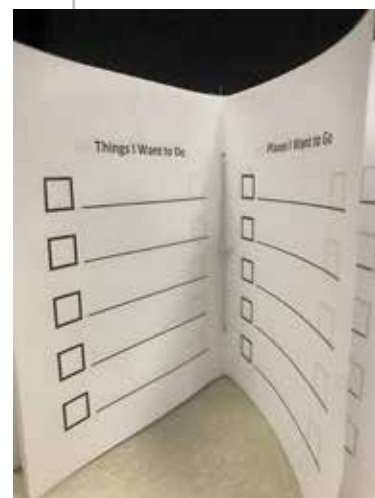


Image source: Brandi Burton of East Baton Rouge Parish Library System in Baton Rouge, LA

ARTS & CRAFTS | LOW COST | PASSIVE

UNIQUE SPACE AND/OR PERSONNEL NEEDS

Solo-librarian friendly.

RESOURCES

Books

Journaling Books

Making Memories (2022) by Amy Tangerine and illustrated by Tracey English (early reader NF)

The Universe in You: A Microscopic Journey (2022) by Jason Chin (middle grade NF)

Journal Sparks (2017) by Emily K. Neuburger (middle grade NF)

I Am Not a Label (2020) by Cerrie Burnell and illustrated by Lauren Mark Baldo (middle grade NF)

Burn After Writing Teen (2019) by Rhiannon Shove (YA NF)

Teen Writer's Guide (2020) by Jennifer Jenkins (YA NF)

The Writer's Map: An Atlas of Imaginary Lands (2018), edited by Huw Lewis-Jones (adult F)

Creative Journaling (2020) by Renee Day (Adult NF)

Middle Grade Fantasy—in Spanish and English

The Storm Runner / El hijo del trueno (2019) by J.C. Cervantes.

The Total Eclipse of Nestor Lopez / El eclipse total de Néstor López (2020) by Adrianna Cuevas

Pony / Poni (2021) by R.J. Palacio

YA Fantasy—in Spanish and English

Raybearer / Radiante (2023) by Jordan Ifueko

Rima's Rebellion / La rebelión de Rima Marín (2022) by Margarita Engle

Iron Widow / Viuda de hierro (2021) by Xiran Jay Zhao

All of Us Villains / Todos somos villanos (2022) by Amanda Foody and C.L. Herman

Skin of the Sea / La piel de las sirenas (2021) by Natasha Bowen

Cemetery Boys / Los chicos del cementerio (2021) by Aiden Thomas

Legendborn / Legendborn (2020) by Tracy Deonn

Adult Fantasy—in Spanish and English

The Inheritance of Orquídea Divina / La herencia de Orquídea Divina (2022) by Zoraida Córdova

The Hacienda / La hacienda (2022) by Isabel Cañas

The Priory of the Orange Tree / El priorato del naranjo (2019) by Samantha Shannon

Invasión silenciosa (2021) by Jenaro Martínez. Only in Spanish.

The Locked Tomb series / Saga de la tumba sellada (2019) by Tamsyn Muir

Black Leopard, Red Wolf / Leopardo negro, lobo rojo (2019) Marlon James

Gods of Jade and Shadow / Dioses de jade y sombra (2020) by Sylvia Moreno-Garcia

Project Hail Mary / Proyecto Hail Mary (2021) by Andy Weir

The Thursday Murder Club / El club del crimen de los jueves (2020) by Richard Osman

The Founders Trilogy / Trilogía los fundadores (2018–22) by Robert Jackson Bennett

Printables

Bucket List Journal (in Spanish and English)

Dreamy Adventure Journal Prompts (in Spanish and English)

THINGS I WANT TO DO:

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

PLACES I WANT TO GO:

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

THINGS I WANT TO DO:

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

PLACES I WANT TO GO:

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

LUGARES A LOS QUE
QUIERO IR:

[illegible]

COSAS QUE QUIERO HACER:

[illegible]

LUGARES A LOS QUE
QUIERO IR:

COSAS QUE QUIERO HACER:

[illegible]

DREAMY ADVENTURE JOURNAL PROMPTS

If you could travel anywhere, where would you go and why?

What has been the biggest adventure of your life so far?

If you could build the world from scratch, what would it be like?

What type of person would you want to go on an adventure with and why?

What would be your best skills on a travel adventure?

If you got lost in the woods (or in a city), what would you do?

MENSAJES DE DREAMY ADVENTURE JOURNAL

Si pudieras viajar a cualquier parte, ¿a dónde irías y por qué?

¿Cuál ha sido la mayor aventura de tu vida hasta ahora?

Si pudieras construir el mundo desde cero, ¿cómo sería?

¿Con qué tipo de persona te gustaría ir en una aventura y por qué?

¿Cuáles serían tus mejores habilidades en una aventura de viaje?

Si te perdieras en el bosque (o en una ciudad), ¿qué harías?

ADVENTURES IN SEWING

AGES

Teens 13–18

Multigenerational

PROGRAM DESCRIPTION

Sewing can bring teens back to the library, and it makes parents happy to see them learning what used to be taught in school. Some teens may have even dabbled in mask-making during the early years of the Covid-19 pandemic, and this program can refresh their skills. The first step is outreach. Ask local sewing clubs, quilter's guilds, and fabric stores for fabric donations and machines to borrow. Remember to enlist volunteers as well! Sewing is a specialized skill, and craft enthusiasts are often excited to share their knowledge.

Two simple, step-by-step projects are described below: How to sew a pillowcase, and how to sew a 3-ring binder cover. Alternatively, check your sewing collection for beginner or stash-busting projects that best suit your audience. Suggested runtime: 90–120 minutes.

MATERIALS AND PREPARATION

Materials:

- Sewing machines (donations or on loan)
- Irons and ironing boards
- Donated fabric
- A variety of thread colors
- Extra sewing machine needles
- Cutting mats and rotary cutters
- Sewing shears
- Irons and ironing boards
- A container for “sharps” (needles)

Preparation:

- Solicit donations for fabric, sewing machines, and irons.
- Make a call for volunteers.
- Limit the number of participants to the number of machines you receive (or 2:1).
- Decide on the age group and the project.

UNIQUE SPACE AND PERSONNEL NEEDS

You will need a meeting room with generous table

ADAPTATION:

Make it a mending and embroidery program to extend the life of favorite pieces of clothing. Great for planet-conscious teens.

ADAPTATION:

Invite more advanced sewers to make clothing for a library fashion contest! To minimize fabric costs, center the contest around altering clothing they already have.

ADAPTATION:

This also makes a great multigenerational program. Adult sewers can help younger participants.

TIP:

For an icebreaker, ask patrons to bring their homemade sewing projects for a show-and-tell.



Image source: Angela Mbagwu of Cobb County Library, Switzer Branch, in Marietta, GA

ARTS & CRAFTS | OUTREACH

space, multiple outlets, and good lighting, as well as a chair for each sewing machine. At least one volunteer seamstress or quilter is required.

RESOURCES

Books

Jo Jo Makoons: Fancy Pants (Jo Jo #2) (2022) by Dawn Quigley and illustrated by Tara Audibert (early reader F)

Radical Sewing: Pattern-Free Sustainable Fashions for all Bodies (2021) by Kate Weiss (YA NF)

Visible Mending: A Modern Guide to Darning, Stitching, and Patching the Clothes You Love (2020) by Arounna Khounnoraj (adult NF)

Embroidering the Everyday (2023) by Cas Holmes (adult NF)

Make Thrift Mend (2021) by Katrina Rodabaugh (adult NF)

Face Masks, Scrub Caps, Arm Slings, and More (2020) by Angie Herbertson (adult NF)

Printables

How to Sew a 3-Ring Binder Cover (in English and Spanish)

How to Sew a Pillowcase (in English and Spanish)

TIP:

Sewers are very protective of their extra sharp shears! Remind patrons never to use sewing shears on paper because it dulls the blades.

TIP:

Display your sewing books! Those who finish early can flip through for inspiration.

TIP:

Fanny packs and mini messenger bags are also great projects to consider for slightly more advanced sewers.

HOW TO SEW A 3-RING BINDER COVER

MATERIALS

- 1–2 yards of fabric in two different colors (per cover)
- Sewing machine (at least 1 for every 2 sewers)
- Iron
- Pins
- Thread
- Scissors

INSTRUCTIONS

1. Pick out two contrasting fabrics
2. Cut two pieces 12 inches long and 11 inches wide (these are the insides of the book cover).
3. Cut one larger piece that is 12 inches long and 21 inches wide (this is the outside of the binder cover).
4. On the 12-inch side of a smaller piece, measure $\frac{1}{2}$ inch and fold it over (to the wrong side).
5. Carefully, iron this fold.
6. Once ironed, use pins to temporarily secure the edge.
7. Repeat steps 4–6 with the second smaller

piece of fabric.

8. Take the small pieces to the sewing machine. Sew along the edge of each fold that was just ironed and pinned.
9. With the wrong sides facing out, place the first small piece to the left of the long piece; then place the second small piece to the right of the long piece.
10. There will be a gap in the middle (where the binder spine will go).
11. The folded edges should be visible and on the inside edge, on either side of the gap.
12. Pin along the fabric on all sides, except for the folded edges you already sewn.
13. Take your pinned fabric pieces to the sewing machine and sew the pinned sides.
14. Remove the pins, cut any loose strings, and turn your book cover inside out. Your book cover is complete!
15. As a bonus, embroider as desired.

TIP:

The “right side” of your fabric is the one with the print; the “wrong side” is the back. If your fabric doesn’t have a print, then the “right side” is the side you see when the project is complete, and the “wrong side” is the side that’s hidden.



Image source: Angela Mbagwu of Cobb County Library, Switzer Branch, in Marietta, GA

CÓMO COSER UNA CUBIERTA DE CARPETA DE 3 ANILLAS

MATERIALES

- 1–2 yardas de tela en dos colores diferentes (por cubierta)
- Máquina de coser (al menos 1 por cada 2 costureras)
- Plancha
- Pines
- Hilo
- Tijeras

INSTRUCCIONES

1. Elige dos telas contrastantes
2. Corta dos piezas de 12 pulgadas de largo y 11 pulgadas de ancho (estas son las partes internas de la cubierta del libro).
3. Corta una pieza más grande de 12 pulgadas de largo y 21 pulgadas de ancho (esta es la parte exterior de la cubierta de la carpeta).
4. En el lado de 12 pulgadas de una pieza más pequeña, mida 1/2 pulgada y dóblala (hacia el lado equivocado).
5. Con cuidado, usa una plancha para planchar este pliegue.
6. Una vez planchado, usa alfileres para asegurar temporalmente el borde.
7. Repite los pasos 4 a 6 con la segunda pieza de tela más pequeña.
8. Ahora lleva tus piezas pequeñas a la máquina de coser. Cose a lo largo del borde de cada pliegue que acabas de planchar y sujetar con alfileres.
9. Con los reverses hacia afuera, coloca la primera pieza pequeña a la izquierda de la pieza larga; luego coloca la segunda pieza pequeña a la derecha de la pieza larga.
10. Habrá un espacio en el medio (donde irá el lomo de la carpeta) .
11. Los bordes doblados deben estar visibles y en el borde interior, a ambos lados del espacio.
12. Coloca alfileres a lo largo de la tela en todos los lados, excepto en los bordes doblados que ya cosiste.
13. Lleva las piezas de tela con alfileres a la máquina de coser y cose los lados con alfileres.
14. Retira los alfileres, corta los hilos sueltos y dale la vuelta a la cubierta del libro. ¡La portada de tu libro está completa!
15. Como beneficio adicional, borda como desees.

CONSEJO:

El "lado derecho" de tu tela es el que tiene el estampado; el "lado equivocado" es la parte de atrás. Si su tela no tiene un estampado, entonces el "lado derecho" es el lado que ve cuando se completa el proyecto, y el "lado revés" es el lado que está oculto.



Image source: Angela Mbagwu of Cobb County Library, Switzer Branch, in Marietta, GA

HOW TO SEW A PILLOWCASE

MATERIALS

- 1–2 yards of fabric in two different colors (per cover)
- Sewing machine (at least 1 for every 2 sewers)
- Iron
- Pins
- Thread
- Scissors

INSTRUCTIONS

1. Pick out 1 or 2 fabrics that you like.
2. Cut two pieces 30 inches long by 21 inches wide.
3. On the long side of one piece, measure 3.5 inches and fold it over (to the wrong side).
4. Carefully, iron this fold.
5. Once ironed, use pins to temporarily secure the edge.
6. Repeat steps 3–5 with the second piece of fabric.
7. Take one pinned piece of fabric to the sewing machine, and sew along the pinned edge.
8. Now repeat along the pinned edge of your other piece of fabric.
9. Now place both pieces of fabric on top of each other with the right sides together.
10. Pin the two pieces together along three sides, and leave the two folded edges unpinned (this is where your pillow fits inside).
11. Take your pinned pieces to the sewing machine, and sew the three sides together.
12. Remove the pins, cut any loose threads, and turn your pillowcase inside out. Your pillowcase is complete!
13. As a bonus, embroider as desired.

TIP:

The “right side” of your fabric is the one with the print; the “wrong side” is the back. If your fabric doesn’t have a print, then the “right side” is the side you see when the project is complete, and the “wrong side” is the side that’s hidden.

CÓMO COSER UNA FUNDA DE ALMOHADA

MATERIALES

- 1–2 yardas de tela en dos colores diferentes (por cubierta)
- Máquina de coser (al menos 1 por cada 2 costureras)
- Plancha
- Pines
- Hilo
- Tijeras

INSTRUCCIONES

1. Elige 1 o 2 telas que te gusten.
2. Corta dos piezas de 30 pulgadas de largo por 21 pulgadas de ancho.
3. En el lado largo de una pieza, mide 3,5 pulgadas y dóblalo (hacia el lado equivocado).
4. Con cuidado, usa una plancha para planchar este pliegue.
5. Una vez planchado, usa alfileres para asegurar temporalmente el borde.
6. Repite los pasos 3 a 5 con la segunda pieza

de tela.

7. Lleva una pieza de tela con alfileres a la máquina de coser y cose a lo largo del borde con alfileres.
8. Ahora repite a lo largo del borde fijado con alfileres de tu otra pieza de tela.
9. Ahora coloca ambas piezas de tela una encima de la otra con los lados derechos juntos.
10. Junta las dos piezas con alfileres a lo largo de tres lados y deja los dos bordes doblados sin alfileres (aquí es donde encaja la almohada adentro).
11. Lleva las piezas con alfileres a la máquina de coser y cose los tres lados.
12. Retira los alfileres, corta los hilos sueltos y dale la vuelta a la funda de la almohada. ¡Tu funda de almohada está completa!
13. Como beneficio adicional, borda como desees.

CONSEJO:

El “lado derecho” de tu tela es el que tiene el estampado; el “lado equivocado” es la parte de atrás. Si su tela no tiene un estampado, entonces el “lado derecho” es el lado que ve cuando se completa el proyecto, y el “lado revés” es el lado que está oculto.

KNOT YOUR AVERAGE ADVENTURE

AGES

Multigenerational

PROGRAM DESCRIPTION

From sailing to rock climbing, knots are an integral part of any adventure. But did you know you can make fun knot puzzles as well? Set up stations throughout the room, and put instructions for tying a different knot (or solving a particular knot puzzle) at each station. Stations could emphasize different uses (safety, art, pulleys) or materials (rope, twine, string), or you could group stations by difficulty. This program also includes several detailed puzzle ideas. Consider running competitive knot-tying or puzzle-solving races or relays, and give out prizes. Suggested runtime: 60–90 minutes.

MATERIALS AND PREPARATION

Materials knot tying:

- Rope cut into different lengths
- A lighter (to melt the ends of nylon rope)
- Duct tape (to secure the ends of cotton or twine rope)
- For a half hitch or noose knot station, a post or an upturned table leg
- For a pulley station, a 2x4, two chairs, a pulley, and a stack of books
- For tug-of-war station, long ropes with different kinds of knots.

Preparation for knot-tying stations:

- Choose which knots to demonstrate and practice them
- Gather examples of how the knots are used
- Set up and test all stations
- Create instructions for every station
- Create a take-home handout (optional)

See Printables for step-by-step knot puzzles.

UNIQUE SPACE AND/OR PERSONNEL NEEDS

Larger groups will need several volunteers to help troubleshoot knot tying.

ADAPTATION:

Create take-and-make kits for simple knot-tying projects, such as a macrame keychains or paracord bracelets.

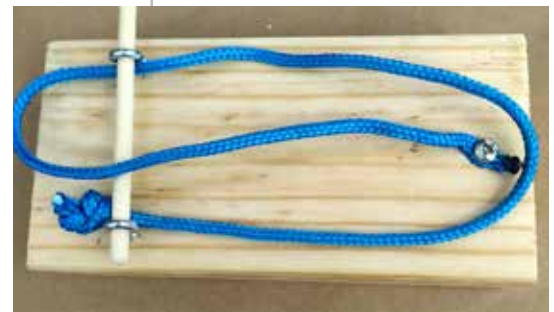


Image source: Yun-Yi Lin of Princeton Public Library, Princeton, NJ



Image source: Yun-Yi Lin of Princeton Public Library, Princeton, NJ



Image source: Yun-Yi Lin of Princeton Public Library, Princeton, NJ

RESOURCES

Web

“Tie Essential Scouting Knots” from Scouting Magazine: <https://bit.ly/3XAeGbt>

Bead puzzle from *Instructables*: <https://bit.ly/44l5Jol>

Diamond knot puzzle from CbyS Paracord on YouTube: <https://bit.ly/3CRa9rx>

Two rings puzzle from Paracord Planet on YouTube: <https://bit.ly/3NAIAJ4>

Books

Knots for Kids (2022) by Buck Tilton and illustrated by Christine Connors
(middle grade NF)

Printables

Bead Puzzle

Diamond Knot Puzzle

Two Rings Puzzle

ADAPTATION:

Make it a craft program where everyone makes a rope puzzle to take home. Show everyone how to make the same one, or if you have enough volunteers, give participants a few to choose from.

TIP:

The knot puzzles have to be assembled in the exact right order. It may take more than one try to assemble them, so be patient.

TIP:

Puzzle size can be scaled smaller or larger. Just remember to adjust the rope/string length accordingly.

TIP:

You can also buy inexpensive rope puzzle kits on Amazon.

BEAD PUZZLE

MATERIALS

- Reused flat material, such as cardboard or plastic
- Ruler
- Pencil
- At least 24 inches of yarn or string
- A hole punch
- A pony bead

INSTRUCTIONS

1. Make a flat rectangle that is 1 by 5 inches. Round the edges if they are too sharp.
2. Lay the rectangle vertical and punch two centered holes: One inch from the top, and one inch from the bottom.
3. Fold the string in half and thread the two ends into a pony bead. Tie a knot to secure the bead to the string.

4. Thread the looped end front to back through the bottom hole.
5. Now thread the same looped end from front to back through the top hole.
6. Now thread the same looped end back through the bottom hole from back to front.
7. Loop the end over the bead, then pull the beaded end taut against the hole.
8. Pull the secured loop backwards into the first hole to finish assembling. The puzzle is now ready to solve.

PUZZLE GOAL:

Extract the bead and string from the rectangle.

SOLUTION:

Reverse the order of the puzzle assembly to solve it.



Image source: Yun-Yi Lin of Princeton Public Library, Princeton, NJ

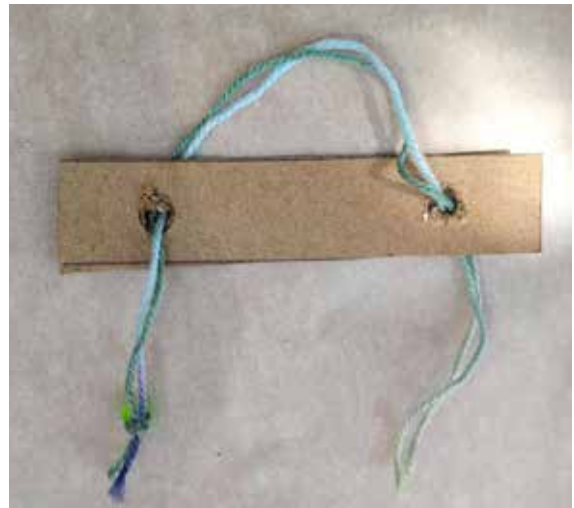


Image source: Yun-Yi Lin of Princeton Public Library, Princeton, NJ



Image source: Yun-Yi Lin of Princeton Public Library, Princeton, NJ

DIAMOND KNOT PUZZLE

MATERIALS

- 6-inch length of 2x4
- Ruler or measuring tape
- Pencil
- 2 eye screws, with holes big enough for chopstick or doweling
- A $\frac{3}{4}$ inch or shorter regular screw or an eye screw
- 24–26 inches of paracord
- Power drill and drill bits
- 1 chopstick or piece of doweling
- Optional: Sandpaper, matches or lighter, hacksaw

INSTRUCTIONS

1. Arrange the wood vertically.
2. Measure $\frac{1}{2}$ inch below the top and draw a line. Then mark the line $\frac{1}{2}$ inch from each edge. You will have two marks for drilling.
3. On the bottom, mark one spot 1 inch from the bottom in the middle of the width.
4. Pre-drill the three holes.
5. Twist an eye screw into each of the two top holes, with the eyes facing each other.
6. Use the paracord to follow STEP-BY-STEP DIAMOND KNOTS on the next page.
7. Trim and burn the end of the paracord to melt it and keep it from unraveling
8. Use a screw to secure the unknotted end of the rope to the bottom hole.

TO ASSEMBLE

1. Thread the chopstick through two eye screws. Place the knot side of the rope under the threaded chopstick with the knot away from the bottom. Pull the knot towards the chopstick to check that the knot does not slip through. Saw off the excess chopstick.

2. Move the paracord outside of the chopstick (you may need to remove and rethread one end of the chopstick to release). Follow the pictures in DIAMOND KNOT PUZZLE ASSEMBLY to prepare the puzzle (steps 11–13).
3. Fold the paracord in half and feed the middle under the chopstick in position.
4. Thread the knot over the chopstick, through and under the middle loop.
5. Grab the three strands of rope and gently pull them towards the secured end of the rope, bringing the knot closer to the chopstick while pulling the intersecting loops underneath the chopstick.
6. Once the puzzle is assembled, adjust the rope so it lays evenly along the wood.

PUZZLE GOAL:

Without moving the doweling itself, move the knot to the other side of the doweling.

SOLUTION:

See DIAMOND KNOT PUZZLE SOLUTION



STEP-BY-STEP DIAMOND KNOTS

1.



2.



3.



4.



5.



6.



7.

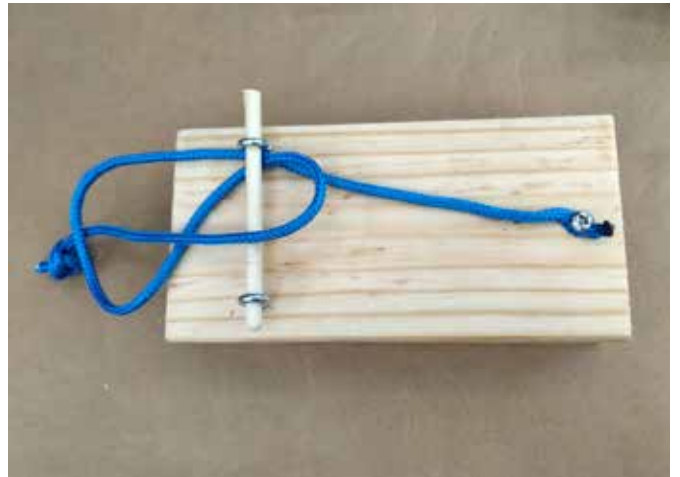


DIAMOND KNOT PUZZLE ASSEMBLY

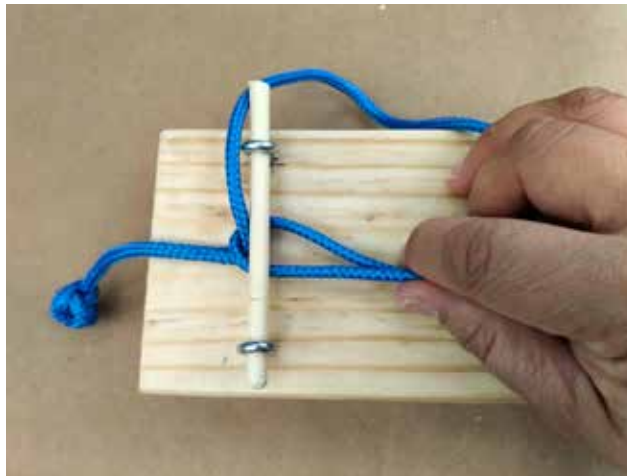
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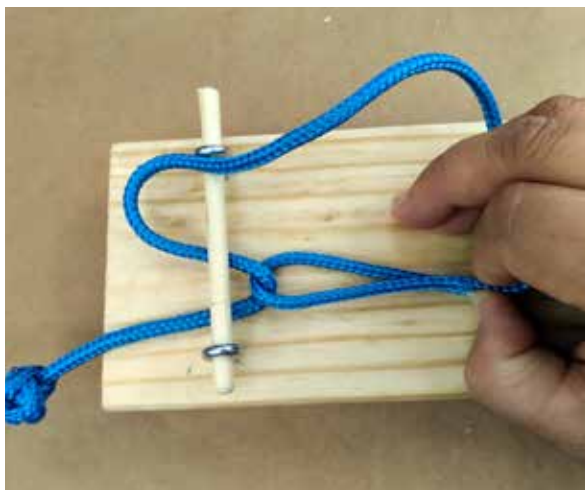
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3.



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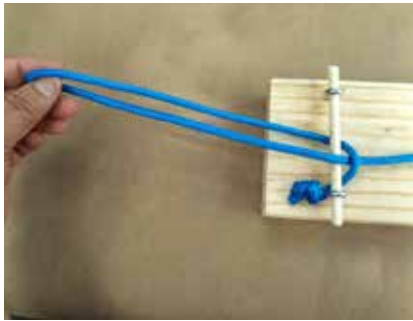


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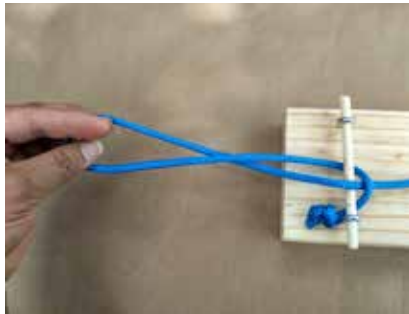


DIAMOND KNOT PUZZLE SOLUTION

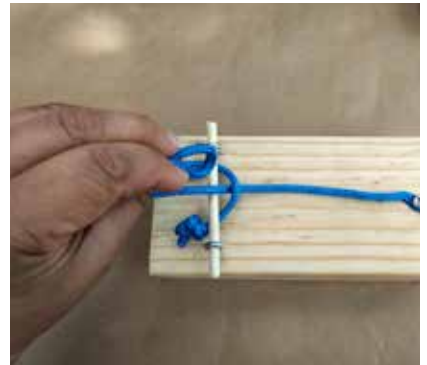
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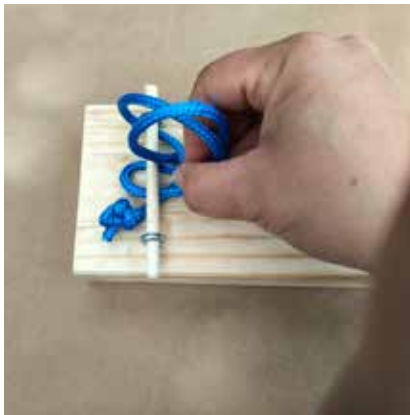
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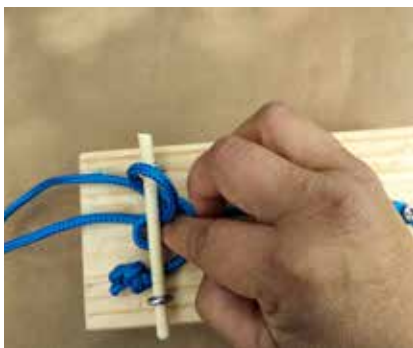
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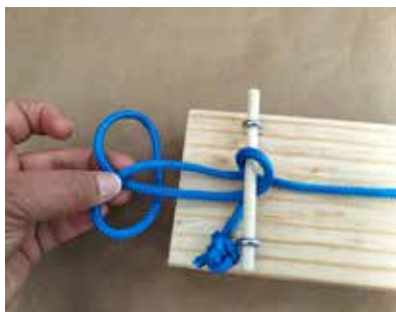
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7.



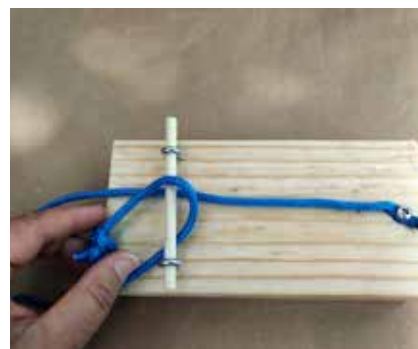
8.



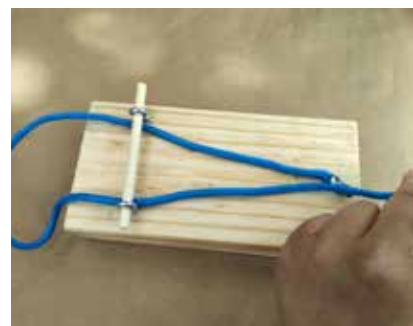
9.



10.



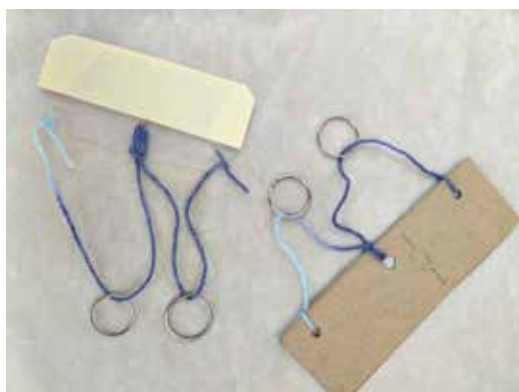
11.



TWO RINGS PUZZLE

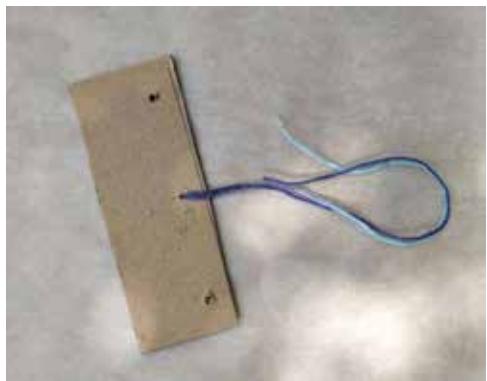
MATERIALS

- Reusable flat material, such as cardboard or plastic
- Ruler
- Pencil
- At least 24 inches of yarn or string
- Hole punch
- 2 keyrings or washers



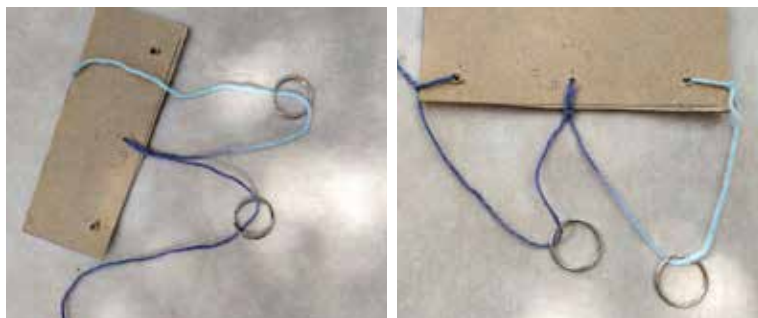
INSTRUCTIONS

1. Create a 2x6-inch rectangle, rounding the edges if desired.
2. Lay the rectangle horizontal and draw a horizontal line one inch from the bottom. Punch three holes along this line: One inch from the left, one inch from the right, and one in the middle
3. Fold the yarn or string in half and thread the middle of the yarn into the middle hole going from front to back. Turn the loop towards the bottom and front. Then pull the ends through the middle loop from top to bottom, make any adjustments necessary so you have equal lengths of rope on each side.



Step3

4. Thread the left side of the loose yarn through one ring, through the left hole, and tie the end into a knot onto itself. Do the same for the right. You have assembled the puzzle.



Step 4

PUZZLE GOAL:

Move the rings so they are on the same side.

SOLUTION:

Follow these instructions for the solution:

1. Pull the middle loop towards the front, loosening it so that the knot in the middle is wide enough to fit a ring through. Select a ring to move to the other side.
2. Lead the moving ring towards the loose middle and push the ring from back to front of the middle loop following the string's path towards the other side. Do not adjust the other side of the yarn or string yet. Move the ring and just enough yarn or string for the ring to go through the middle loop.
3. Gently pull the two threads towards the front, and pull the middle loop through the middle hole from the back to the front. The middle loop is now in the front.



BUBBLEPALOOZA

AGES

Children 5–8

PROGRAM DESCRIPTION

An outdoor bubble party! Children explore how bubbles form, as well as how make bubble solutions and bubble wands. For an indoor program, children can make bubble paintings; when the paintings dry, have them draw creatures who might live inside the bubbles. Add a bubble machine to ensure bubble continuity. To age up for tweens, turn this into a STEM program in which they construct giant bubble wands to see who can leverage surface tension to blow the biggest bubble (see Resources). Suggested runtime: 60 minutes.

MATERIALS AND PREPARATION

Bubble Painting

Materials:

- White construction paper
- Washable project paint
- Plastic cups / containers
- Paper or plastic straws
- Dish soap (clear works best)
- Stirring sticks, popsicle sticks or plastic spoons
- Table cloths or newspaper (to cover work surfaces)

Instructions:

1. Create paint solution with a 3-1-1 ratio when mixing (3 parts paint, 1 part water, 1 part dish soap) You may have to adjust this depending on the concentration of the dish soap, the type of paint you use, and the type of container you choose. Keep the amount of water used on the lower side so the paint color will keep its concentration. Mix the solution well right before using.
2. Give each child a piece of white construction paper and a straw. Have them blow bubbles into the solution (as many or as few as they wish). Catch the bubbles with the white piece of paper. They can do this randomly for a more abstract painting or have them draw a picture and try to catch the bubbles in a specific spot.

Types of DIY Bubble Wands

Pipe Cleaners (Preschool and Up)

- Bend tips into any closed shape
- Optionally, provide cookie cutters to mold shapes



Image source: Azita Frattarelli of Riverview Veterans Memorial Library, Riverview, MI

ADAPTATION:

For a take-and-make program, include pipe cleaners and small bottles of bubble solution.

TIP:

Set big buckets of bubble solution on a tarp so drips don't kill the grass (and remember to dump the leftover bubble solution inside or in an outdoor drain).



Image source: Azita Frattarelli of Riverview Veterans Memorial Library, Riverview, MI

GAME/ACTIVITY | STEM | OUTDOORS

Plastic Funnels (Preschool and Up)

- Dip wide end in solution and blow through the narrow end

Straws (Preschool and Up)

- Dip one end to make numerous tiny bubbles
- Plastic cups (preschool and up)
- Poke hole in bottom
- Dip open end in solution and blow through the hole

Water Bottles (School Age and Up)

- Cut off the bottom end cover it with a washcloth (or sock) held in place by a rubber band
- Children dip the washcloth end and blow through the “drinking” end to make long snake bubbles

Wire (Twins and Up)

- Bend wire into a circle, with beads for decoration
- would require safety gloves for handling wire
- Giant bubble wands (twins and up)
- Two pieces of doweling with twine between them

Easy Bubble Solutions

Using glycerin:

- 1 gallon water
- $\frac{2}{3}$ cup of dish soap
- 3 tbsp glycerin

Using sugar:

- $\frac{1}{2}$ cup dish soap
- $\frac{1}{2}$ cup granulated sugar
- 2 cups water

Preparation:

- Decide on which wands to make (based on age).
- Gather materials for your chosen wands.
- Precut dowels for giant bubble wands (if using).
- Premix some bubble solution.
- Gather mixing bowls and supplies if children will mix their own.

UNIQUE SPACE AND/OR PERSONNEL NEEDS

Outdoors. Volunteers are needed to help mix the bubble solution and monitor for safety.

RESOURCES

Web

“Paint with Bubbles Three Ways” from Artful Kids: <https://bit.ly/44qoFCi>

“Bubble Science Experiments for Kids” from Little Bins, Little Hands: <https://bit.ly/3r6Ur9e>

TIP:

Have volunteers on hand to make sure children blowing into the solution, not sucking on the straw.

TIP:

Bubble solution gets better the longer it sits, so make a batch a few days in advance.

TIP:

If the bubble solution is too weak for giant bubbles, try adding cornstarch or baking powder.

TIP:

Challenge children to blow bubbles inside other bubbles by poking a straw gently through a bigger bubble and blowing another one.

“Build the Best Bubble Wand” from Scientific American: <https://bit.ly/44mK1k1>

“Science of Bubbles” printable from Illinois Extension: <https://bit.ly/444iF2m>

Books

Bubble Picture Books

Big Bag Bubble (2017) by Adam Rubin and illustrated by Daniel Salmieri

Bubbles...UP! (2021) by Jacqueline Davies and illustrated by Sonia Sánchez

Too Many Bubbles (2021) by Christine Peck and Mags DeRoma

Bubbles (Narwhal and Jelly Board Book) (2021) by Ben Clanton

LIBRARY OLYMPIC GAMES

AGES

Tweens 9–12

PROGRAM DESCRIPTION

Run friendly competitive games to coincide with the 2024 Summer Olympics (Friday, July 26 to Sunday, August 11). In the first part of this program, tweens work together to create a torch to signal the start of the games and awards for each game. In the second part, they play competitive library games (alternatively, this portion can be passive and book-focused). The third part of the program is a ceremony to award medals/trophies to winners. This program can be run over several weeks or condensed into a single program. Suggested runtime: 60–90 minutes.

MATERIALS AND PREPARATION

Competitive library games:

- Book stack: Use donations or withdrawn items to see who can stack the books highest and fastest without toppling.
- Fast alphabet: Have a cart of books and see who can correctly put the spine labels in correct order the fastest
- Book balance: Each player balances a book on their head while walking a designated path.
- Olympic ring bean bag toss: Set up 5 hoops and award points for players who get the beanbags through the hoops
- Paper plate shot put: Players write their name on a paper plate, then see who can toss it the farthest using correct shot put form.

Passive reading games:

- Marathon: Read a book based on a summer Olympic sport.
- Sprint: Read a short story based on a summer Olympic sporting.
- Weightlifting: Read a book more than 250 pages long.
- Relay: Read 1 hour every day for 7 days in a row.
- Team effort: You and a friend read the same book.

Materials:

- Game-specific supplies
- Times and/or stopwatches
- Prizes

UNIQUE SPACE AND/OR PERSONNEL NEEDS

Volunteers helpful for monitoring stations.

TIP:

To extend this Olympic series, consider combining this program with Adventures in Breaking on page XX.



Image source: Stephanie Birr of Los Lunas Public Library, Los Lunas, NM

RESOURCES

Web

“Olympic Games: Resources for Public Libraries” from Britannia Education: <https://bit.ly/4456dPZ>

“Paris 2024” from International Olympic Committee: <https://bit.ly/3JC7g1R>

“Team USA” from the United States Olympic and Paralympic Committee: <https://www.teamusa.org/>

Books

Early Readers

The Timekeepers: The Ancient Olympics (2023) by SJ King and illustrated by Esther Hernando

The Mind-Blowing World of Extraordinary Competitions (2023) by Anna Goldfield and illustrated by Hannah Riordan

The Origin of Sports (2023) by Tom Velcovsky and Stephanka Sekaninova, and illustrated by Matej Ilcik

Middle Grade

Boundless (2023) by Chaunté Lowe

Mr. Lemoncello’s Library series (2014–21) by Chris Grabenstein

Kudo Kids: The Mystery of the Masked Medalist (2020) by Maia Shibutani and Alex Shibutani

Daisy Woodworm Changes the World (2022) by Melissa Hart

Gold Metal Mysteries: Thief on the Track (2023) by Ellie Robinson and illustrated by James Lancett

Montgomery and the Case of a Golden Key (2023) by Tracy Ocomy Crowder and illustrated by Kristin Sorra

The Great Book of Olympic Games (2021) by Veruska Motta and illustrated by Luca Poli

Weird Sports (2023) by Brianna Kaiser

Young Adult

Those Summer Nights (2023) by Laura Silverman

Break the Fall (2020) by Jennifer Lacopelli

Furia (2020) by Yamile Saied Méndez

The Key to You and Me (2021) by Jaye Robin Brown

The Knockout (2020) by Sajni Patel

Inaugural Ballers: The True Story of the First US Women’s Olympic Basketball Team (2022) by Andrew Maraniss

Victory. Stand!: Raising My Fist for Justice (2022) by Tommie Smith, Derrick Barnes, and Dawud Anyabwile

The Sports Book (2020) from DK

SOLAR OVEN RECIPE CONTEST

AGES

Tweens 9–12

Teens 13–18

PROGRAM DESCRIPTION

What if you have an acute need for homemade cookies while you're on an adventure, but there's no oven nearby? Create a solar oven out of a pizza box! After construction, participants take them home and test out some recipes. S'mores? Toast? Hold a contest to see who can make the most adventurous snacks using their DIY solar oven. Suggested runtime: 60–90 minutes for oven construction.

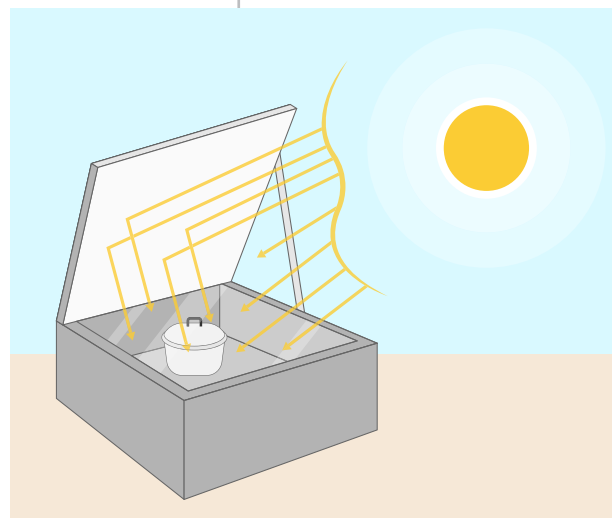


Image source: Shutterstock

MATERIALS AND PREPARATION

Materials for each solar oven:

- Pizza box
- Scissors or utility knives
- Clear plastic, such as document sleeves or cling film
- Duct tape, masking tape, or scotch tape
- Tinfoil
- Old newspapers
- Black construction paper
- Small aluminum dish
- Skewers
- Rubber bands and small thermometer (optional)

To make:

- Trace a square on the top of the pizza box 2 inches smaller than the box on all sides
- Cut the square on 3 sides: left, right, and bottom; and lightly score the top side.
- On the back of the lid, tape clear plastic to make a window underneath the flap you just cut.
- Cover the inside of the pizza box and the underside of the flap with tin foil.
- Tape black paper to the bottom of the pizza box.
- Roll up old newspaper, cinch with rubber bands, and line all four sides of the pizza box for insulation.
- To operate, place food in an aluminum dish to bake under the plastic window.

ARTS & CRAFTS | GAME/ACTIVITY | STEM

- Close the pizza box, and prop open the flap with a skewer.
- Be sure to orient the oven towards the sun!

RESOURCES

Web

Solar s'mores from NASA *Climate Kids*: <https://climatekids.nasa.gov/smares/>
"How to Make a Solar Oven" from *Science Sparks*: <https://bit.ly/3pmzc2S>

ADVENTURE CUPCAKES

AGES

Tweens 9–12

Teens 13–18

Multigenerational

PROGRAM DESCRIPTION

Invite a local cake decorator to demonstrate techniques, then challenge tweens, teens, or families to a cupcake-decorating contest. They decorate premade cupcakes according to the adventure theme. You can judge the cupcakes right away or add an adventure challenge. Which cupcake travels the farthest from the library before it gets eaten? Where in your community are cupcakes getting eaten? To enter an adventure cupcake, participants must photograph their cupcake getting eaten in a new location. Display winning cupcakes and cupcake-makers on social media, in the library newsletter, or in the local paper. Suggested runtime: 60 minutes.

MATERIALS AND PREPARATION

Materials:

- Cupcakes (2 per participant, according to dietary needs)
- Cake decorating equipment
- Sprinkles, food coloring, candy, etc.
- Frosting
- Plastic table coverings, condiment cups, and knives
- Printed cupcake silhouettes and pencils (for practice designs)

Preparation:

- Find a local cake decorator to demonstrate
- Print sign-up sheets
- Purchase supplies
- Purchase or bake cupcakes
- Print judging sheet & cut in half

RESOURCES

Printables

Cupcake Judging Sheet (in English and Spanish)



Image source: Shutterstock

TIP:

Let teens decorate two cupcakes, one to eat now and one to eat later. They can enter their favorite design and eat the other one.

TIP:

Require sign-ups and have participants inform you of any allergies in advance. You can buy or different kinds of cakes or cupcakes according to individuals' needs. Grocery stores will often make unfrosted cupcakes upon request.

ADAPTATION:

For take-and-make kit, provide unfrosted cupcakes, frosting in plastic sauce containers, and decorations (optional). Be sure to include contest rules and deadline.

ADAPTATION:

If you don't want to include the travel component, see Printables for a cupcake-judging scoresheet.

TIP:

Scan your collection for cupcake and baking books!

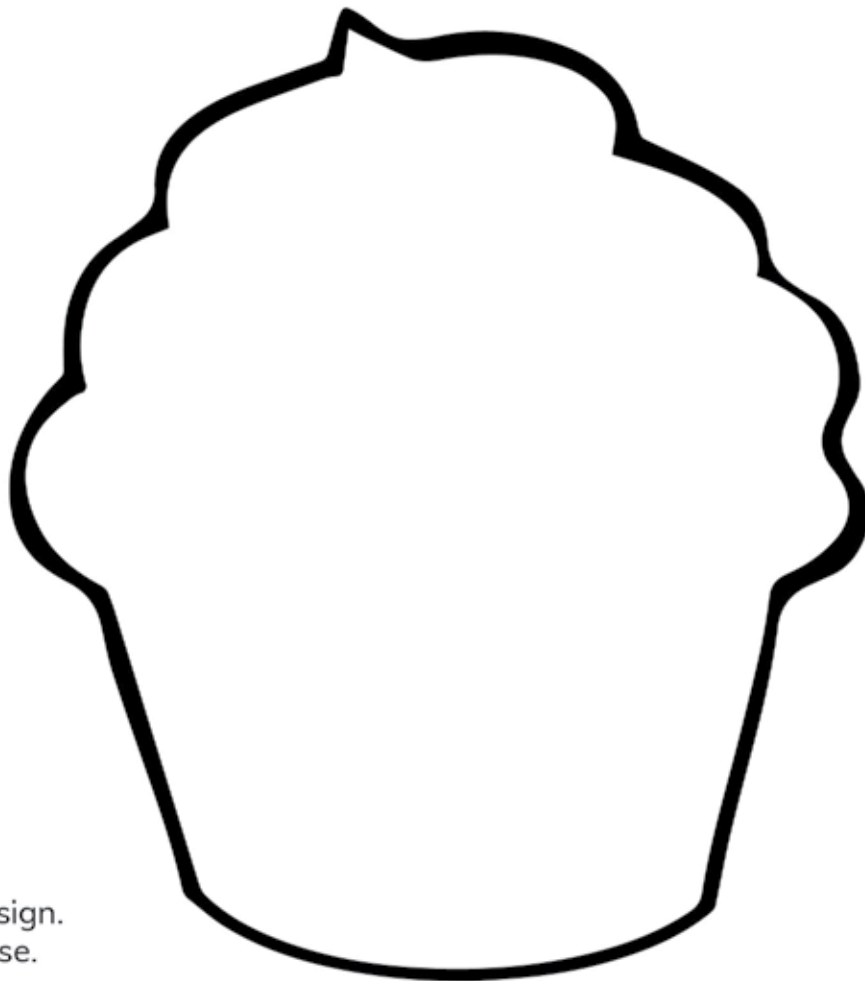
CUPCAKE JUDGING SHEET

Competitor Name _____

Rate each criteria from 1 to 5, with 5 being the highest rating.

Creativity					
Use of materials					
Effort					
Follows the theme					

Total Points _____



Test your cupcake design.
This is only for your use.

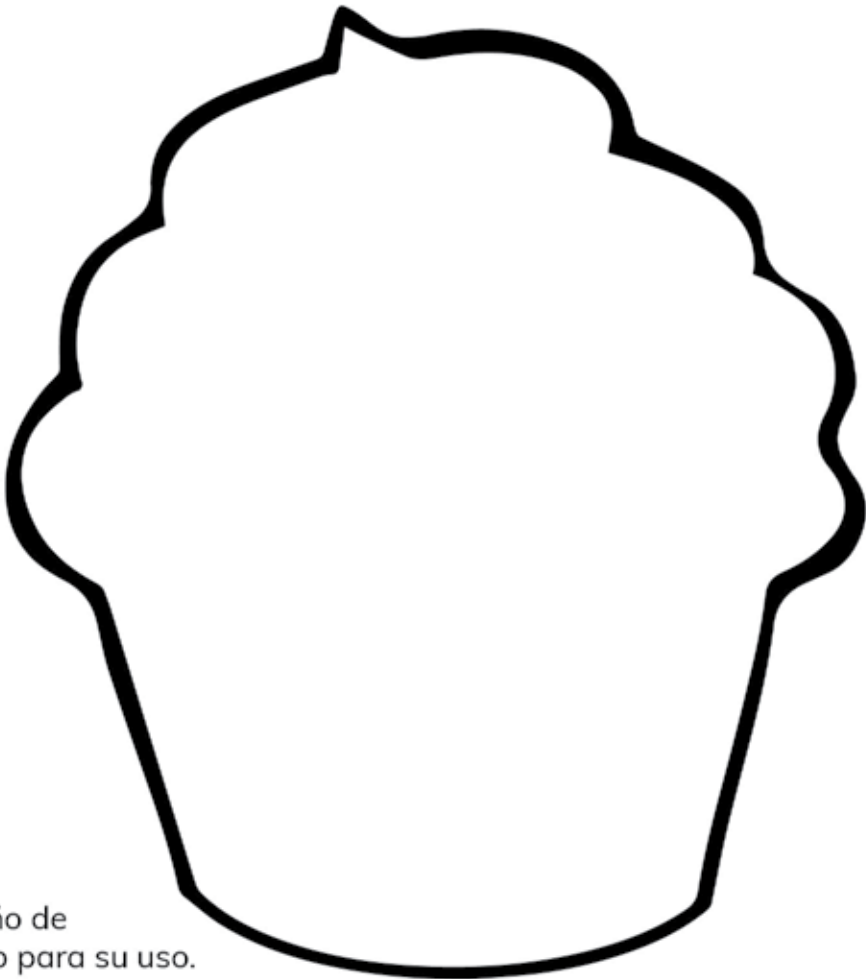
HOJA DE EVALUACIÓN DE CUPCAKES

Nombre del competidor _____

Califica cada criterio del 1 al 5, siendo 5 el más alto.

Creatividad					
Uso de materiales					
Esfuerzo					
Sigue el tema					

Puntos
totales
otorgados _____



Pon a prueba tu diseño de cupcakes. Esto es solo para su uso.

UNDER-THE-SEA MAGIC PAPER FLASHLIGHT

AGES

Children 5–8

PROGRAM DESCRIPTION

Create an underwater adventure with hidden surprises! Works well for any “in the dark” scene. Children trace a template or use their imagination to draw silhouettes. Alternatively, this craft can be premade for an early literacy activity: Write letters of the alphabet on the plastic sheet instead, and have preschoolers color in the flashlight. Suggested runtime: 45 minutes.

MATERIALS AND PREPARATION

Materials:

- Plastic sheet protectors
- Black permanent markers
- Black paper or cardstock
- Flashlight printout (see Resources)
- Scissors
- A stencil or a template for children to trace (optional)
- Colored permanent markers (optional)

To make:

- Draw a scene on a plastic sheet protector with a permanent marker. Add color if desired.
- Slide a piece of black paper into the sheet protector.
- Print the flashlight silhouette onto white paper.
- Cut out the flashlight (and light beam) as one piece. Glue it onto heavier paper or cardstock.
- Color the body of the flashlight (optional).
- Slip the flashlight between the black paper and the drawing.
- Move the light beam to highlight different parts of the picture.

TIP:

Be sure to use permanent markers, as washable ones smudge on the plastic.

TIP:

The Bedtime Shadow Book series works great for flashing silhouettes on the wall.



Image source: Azita Frattarelli of Riverview Veterans Memorial Library, Riverview, MI

ARTS & CRAFTS

RESOURCES

Web

“Under the Sea Magic Flashlight” from DIY Labs on YouTube: <https://bit.ly/3NShKwj>

Books

Bedtime Shadow Books (series) (picture book NF)

Earth’s Incredible Oceans (2021) by Jess French and illustrated by Claire McElfatrick (early reader NF)

The Great Barrier Reef (2022) by Helen Scales and illustrated by Lisk Feng (early reader NF)

Printables

Traceable Flashlight

Traceable Water Scene

Traceable Water Scene Courtesy of Azita Frattarelli of Riverview Veterans Memorial Library, Riverview, MI





GLOW-IN-THE-DARK ADVENTUREMOBILE CONTEST

AGES

Children 5–8

Tweens 9–12



Image source: Shutterstock

PROGRAM DESCRIPTION

Children design adventuremobiles out of recycled materials, and at least one element of the adventuremobile must glow in the dark. You could focus on rockets, UFOs, ground vehicles, submarines, or leave the theme wide open. Require children to name their adventuremobile and write a description of its function. This program can be run in person over several days, or make it passive by maintaining a recycling building station in the library. Offer to store incomplete adventuremobiles to keep them safe between building sessions. After the entries are in, hold a live voting party so voters can see the glow-in-the-dark elements. Suggested runtime: 45–60 minutes for a voting party.

MATERIALS AND PREPARATION

Materials:

- Recycled materials
- Glow-in-the dark elements (stickers, paint, glow sticks, reflective tape, etc.)
- Miscellaneous craft supplies
- Safety scissors
- Glue, glue sticks, and tape
- Entry numbers and labels
- Printed ballots and pencils
- Blank description cards
- Ballot box
- Display space for completed adventuremobiles
- Storage space for adventuremobiles-in-progress (or to hide before voting)
- Prizes

Preparation:

- Decide on contest requirements (e.g., theme, size limit, voting categories by age)
- Make flyers with contest information, deadline, and date of the voting party
- Organize the space to display contest entries (and store them before voting)
- Print number display card tents (one per entry)
- Print ballots
- Prep ballot box
- Organize space to display contest entries

ARTS & CRAFTS | DECORATION/DISPLAY | PASSIVE | STEM

UNIQUE SPACE AND/OR PERSONNEL NEEDS

You will need a display space and personnel to keep track of submissions and display the entries. You might also need a table-top building station in the library.

RESOURCES

Web

“US Submarines Poster” from Naval Submarine League: <https://bit.ly/3CSojc1>

“Rockets of the World” from World Economic Forum: <https://bit.ly/433LnPU>

Books

Rocket Science: A Beginner’s Guide to the Fundamentals of Spaceflight (2020) by Andrew Radar and illustrated by Galen Frazer (middle grade NF)

Awesome Construction Activities for Kids (2021) by Akyiaa Morrison (middle grade NF)

Upcycle It: Crafts for Kids (2022) by Jennifer Perkins (middle grade NF)

Planet Omar: Ultimate Rocket Blast (2023) by Zanib Mian and illustrated by Kyan Cheng (middle grade F)

My Life as an Ice Cream Sandwich (2019) by Ibi Zoboi (middle grade F)

Printables

Recycled Adventuremobile Ballots (in English and Spanish)

Recycled Adventuremobile Entry Form (in English and Spanish)

**GLOW-IN-THE DARK RECYCLED
ADVENTUREMOBILE BALLOT**

Write the number of the adventuremobile
you like best here: _____

Please vote only once. Thank you!

The winner will be announced on _____

**GLOW-IN-THE DARK RECYCLED
ADVENTUREMOBILE BALLOT**

Write the number of the adventuremobile
you like best here: _____

Please vote only once. Thank you!

The winner will be announced on _____

**GLOW-IN-THE DARK RECYCLED
ADVENTUREMOBILE BALLOT**

Write the number of the adventuremobile
you like best here: _____

Please vote only once. Thank you!

The winner will be announced on _____

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ADVENTUREMOBILE BALLOT**

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you like best here: _____

Please vote only once. Thank you!

The winner will be announced on _____

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ADVENTUREMOBILE BALLOT**

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you like best here: _____

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ADVENTUREMOBILE BALLOT**

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you like best here: _____

Please vote only once. Thank you!

The winner will be announced on _____

**GLOW-IN-THE DARK RECYCLED
ADVENTUREMOBILE BALLOT**

Write the number of the adventuremobile
you like best here: _____

Please vote only once. Thank you!

The winner will be announced on _____

**GLOW-IN-THE DARK RECYCLED
ADVENTUREMOBILE BALLOT**

Write the number of the adventuremobile
you like best here: _____

Please vote only once. Thank you!

The winner will be announced on _____

**BOLETA PARA EL CONCURSO DE
VEHÍCULOS DE AVENTURA RECICLADOS
QUE BRILLAN EN LA OSCURIDAD**

Escribe aquí el número del motoaventura
que más te guste: _____

Por favor vota solo una vez. ¡Gracias!

El ganador _____

**BOLETA PARA EL CONCURSO DE
VEHÍCULOS DE AVENTURA RECICLADOS
QUE BRILLAN EN LA OSCURIDAD**

Escribe aquí el número del motoaventura
que más te guste: _____

Por favor vota solo una vez. ¡Gracias!

El ganador _____

**BOLETA PARA EL CONCURSO DE
VEHÍCULOS DE AVENTURA RECICLADOS
QUE BRILLAN EN LA OSCURIDAD**

Escribe aquí el número del motoaventura
que más te guste: _____

Por favor vota solo una vez. ¡Gracias!

El ganador _____

**BOLETA PARA EL CONCURSO DE
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que más te guste: _____

Por favor vota solo una vez. ¡Gracias!

El ganador _____

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VEHÍCULOS DE AVENTURA RECICLADOS
QUE BRILLAN EN LA OSCURIDAD**

Escribe aquí el número del motoaventura
que más te guste: _____

Por favor vota solo una vez. ¡Gracias!

El ganador _____

**BOLETA PARA EL CONCURSO DE
VEHÍCULOS DE AVENTURA RECICLADOS
QUE BRILLAN EN LA OSCURIDAD**

Escribe aquí el número del motoaventura
que más te guste: _____

Por favor vota solo una vez. ¡Gracias!

El ganador _____

**BOLETA PARA EL CONCURSO DE
VEHÍCULOS DE AVENTURA RECICLADOS
QUE BRILLAN EN LA OSCURIDAD**

Escribe aquí el número del motoaventura
que más te guste: _____

Por favor vota solo una vez. ¡Gracias!

El ganador _____

**BOLETA PARA EL CONCURSO DE
VEHÍCULOS DE AVENTURA RECICLADOS
QUE BRILLAN EN LA OSCURIDAD**

Escribe aquí el número del motoaventura
que más te guste: _____

Por favor vota solo una vez. ¡Gracias!

El ganador _____

**GLOW-IN-THE DARK RECYCLED
ADVENTUREMOBILE ENTRY FORM**

Full name: _____

Age: _____

Phone number: _____

Adventuremobile Name: _____

Where does it glow in the dark? _____

**GLOW-IN-THE DARK RECYCLED
ADVENTUREMOBILE ENTRY FORM**

Full name: _____

Age: _____

Phone number: _____

Adventuremobile Name: _____

Where does it glow in the dark? _____

**GLOW-IN-THE DARK RECYCLED
ADVENTUREMOBILE ENTRY FORM**

Full name: _____

Age: _____

Phone number: _____

Adventuremobile Name: _____

Where does it glow in the dark? _____

**GLOW-IN-THE DARK RECYCLED
ADVENTUREMOBILE ENTRY FORM**

Full name: _____

Age: _____

Phone number: _____

Adventuremobile Name: _____

Where does it glow in the dark? _____

**FORMULARIO DE PARTICIPACIÓN EN EL CONCURSO
DE VEHÍCULOS DE AVENTURA RECICLADOS QUE
BRILLAN EN LA OSCURIDAD**

Nombre completo: _____

Edad: _____

Número de teléfono: _____

Nombre del móvil de aventura: _____

¿Dónde brilla en la oscuridad? _____

**FORMULARIO DE PARTICIPACIÓN EN EL CONCURSO
DE VEHÍCULOS DE AVENTURA RECICLADOS QUE
BRILLAN EN LA OSCURIDAD**

Nombre completo: _____

Edad: _____

Número de teléfono: _____

Nombre del móvil de aventura: _____

¿Dónde brilla en la oscuridad? _____

**FORMULARIO DE PARTICIPACIÓN EN EL CONCURSO
DE VEHÍCULOS DE AVENTURA RECICLADOS QUE
BRILLAN EN LA OSCURIDAD**

Nombre completo: _____

Edad: _____

Número de teléfono: _____

Nombre del móvil de aventura: _____

¿Dónde brilla en la oscuridad? _____

**FORMULARIO DE PARTICIPACIÓN EN EL CONCURSO
DE VEHÍCULOS DE AVENTURA RECICLADOS QUE
BRILLAN EN LA OSCURIDAD**

Nombre completo: _____

Edad: _____

Número de teléfono: _____

Nombre del móvil de aventura: _____

¿Dónde brilla en la oscuridad? _____

CONSTELLATION JARS

AGES

Children 5–8

Tweens 9–12

PROGRAM DESCRIPTION

Put constellations in a jar! This simple craft is great for children and tweens, and can also be made into a take-and-make kit. To age up, add STEM materials about astronomy and/or astrology. Suggested runtime: 45 minutes.

MATERIALS AND PREPARATION

Materials:

- Glass jars, large or small, with lids
- LED light strings (1 per participant)
- Black paper or aluminum foil
- Labels and markers
- Cardboard sheets (to put under paper before poking holes)
- Something to poke holes with, such as ball point pens
- Clear tape or staples

Preparation:

- Figure out the size of constellation paper needed to fit the jars
- Pre-poke holes for younger children.
- For a 16-oz mason jar, the circumference is ~10.2"
- For a 32-oz mason jar, the circumference is ~12.0"
- Be sure to test a piece to make it fit your specific jar, as size may vary between brands.

Assembly:

1. Cut paper or foil into a rectangle, about the height of the jar up to the lid and wide enough to wrap around the inside circumference.
2. Place paper/foil onto a piece of cardboard or a silicon mat to protect the table underneath.
3. Place a constellation template (see below) on top of the paper/foil.
4. Poke holes through the template into the paper/foil rectangle to make "stars."
5. Roll the paper/foil into a loose tube, and use tape or staples to secure the ends.
6. Insert tube into the jar.
7. Place the fairy light string or tealight inside the tube and put the lid on the jar.
8. In the dark, turn on jar lights to enjoy the calming constellations.



Image source: Greta Funk of Nortonville Public Library, Nortonville, KS



Image source: Greta Funk of Nortonville Public Library, Nortonville, KS

ADAPTATION:

For an intergalactic theme, children deconstruct alien eggs or bring a small object from home to see if the "alien" can guess what it is.

ARTS & CRAFTS

RESOURCES

Books

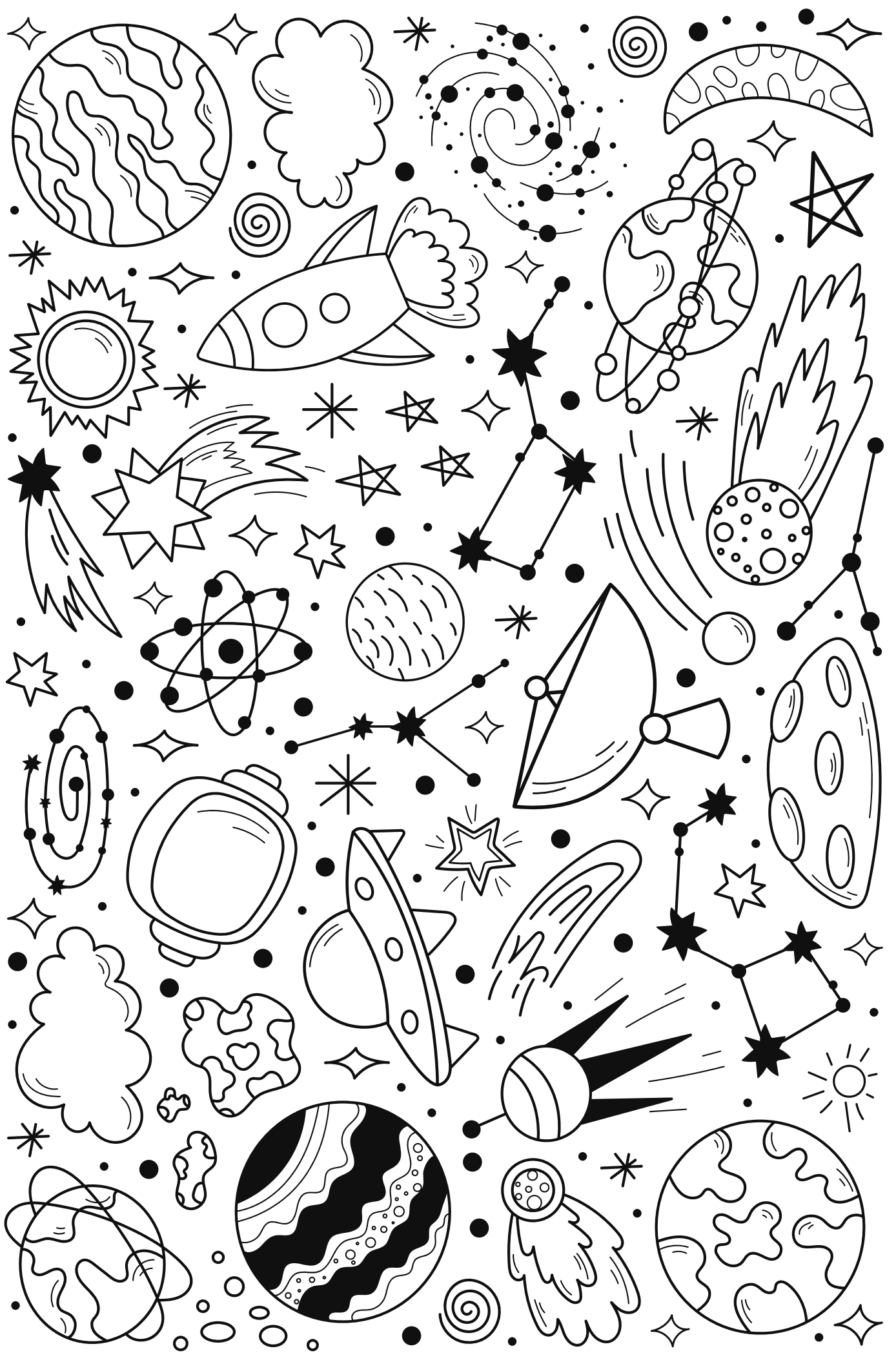
Constellations for Kids (2020) by Kelsey Johnson (early reader NF)

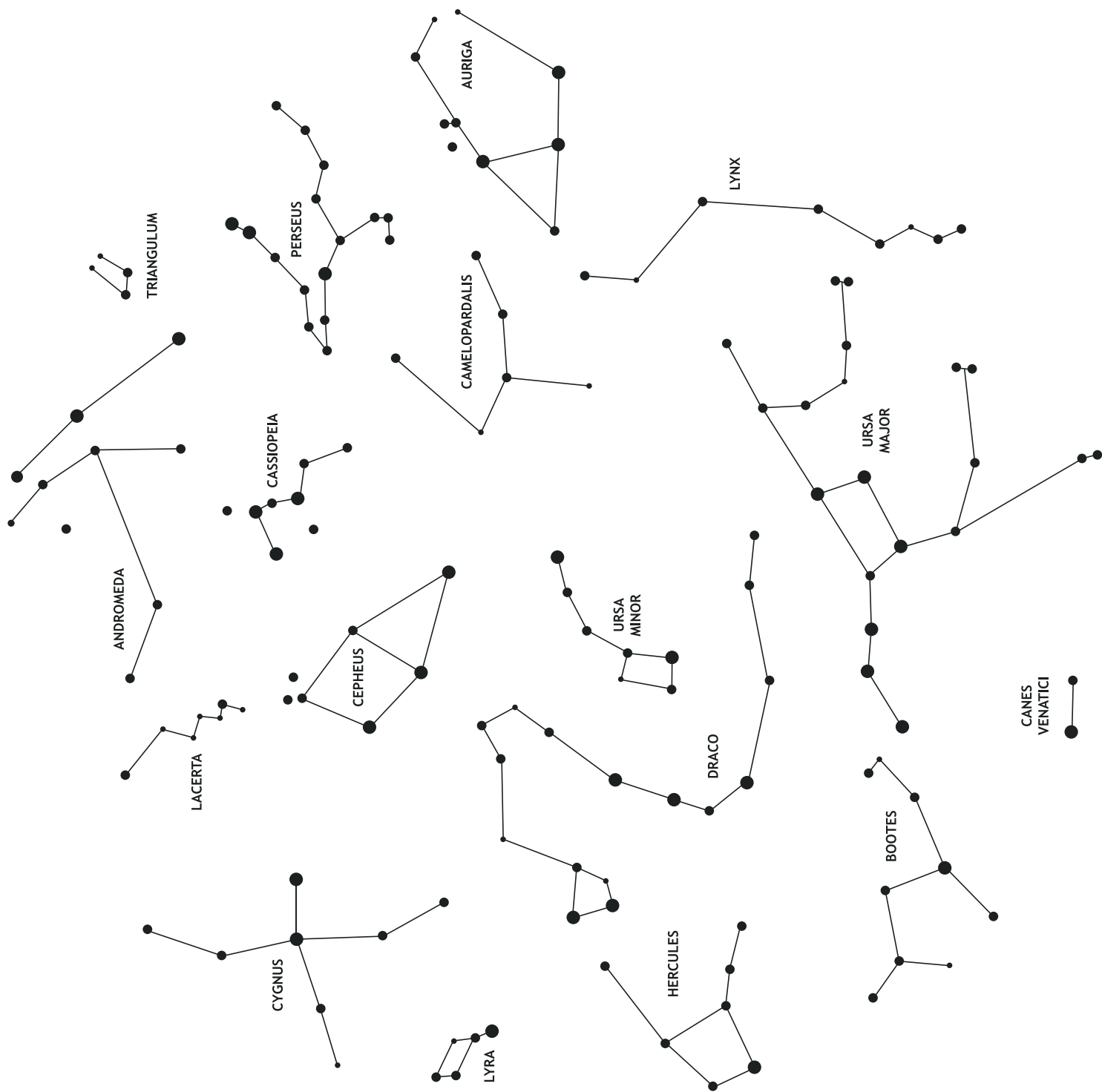
Where Are the Constellations? (2021) by Stephanie Sabol (middle grade NF)

Printables

Space Coloring Sheet

Constellations





SCIENCE ADVENTURE: PAPER CIRCUIT ART

AGES

Tweens 9–12

PROGRAM DESCRIPTION

Combine art and science to make your work shine! In this program, tweens make LED paper circuits to light up their artwork. This program can be tweaked to fit any theme, but for “in the dark,” consider centering the program around nighttime, space, fireflies, or deep ocean. Tip: The artwork doesn’t have to be flat! Greeting cards and origami also work well. Suggested runtime: 45–60 minutes.

MATERIALS AND PREPARATION

Materials:

- 5mm LED lights-assorted colors
- ¼-inch double-sided conductive copper tape with adhesive (four 6-inch strips per participant)
- CR2032 coin cell (3V) batteries (one per participant)
- Cardstock
- Pencils
- Various art supplies
- Foam double-sided tape
- Hair dryer

Preparation:

- Gather supplies and make a sample circuit.
- Prepare a basic overview of circuits and how they work.
- The simplest way to make a circuit is to take an LED light and a CR2032 3V battery; touch the long end of the light to the positive side of the battery and the short side to the negative side of the battery.

During the program:

- Give an overview of circuits.
- Give each participant an LED light and a battery to test.
- Show some examples of paper circuit artwork (2- and 3-D).
- Give participants time to create their art
- When the art is complete, poke a small hole where the LED light will go.
- Put the LED light through the hole and spread the prongs so they are flat against the paper. Note: The longer prong is the positive side; the shorter prong is the negative side. (See Printables for circuit diagram)
- Cut one 6-inch piece of copper tape in half. Attach one 3-inch piece to



Image source: Sara Ebersole of the Orange County Library System-Hiawasse Branch in Orlando, FL

ADAPTATION:

Also makes a great family program.

TIP:

If using paint, a hair dryer speeds up the drying process.

TIP:

Remove the backing from the copper tape 2 inches at a time to prevent it from tangling.

STEM | ARTS & CRAFTS

the short prong and run the tape perpendicular to the prong.

- Add a 5-inch piece of copper tape at a 90-degree angle.
- Add another 6-inch piece of copper tape at a 90-degree angle.
- Using foam tape, place the coin battery negative side-down on the copper tape (see figure)
- Add the last 60-inch piece of copper tape at a 90-degree angle (over the coin cell battery)
- Add the last 3-inch piece of copper tape at a 90-degree angle, attaching it to the long prong.
- Flip the paper over. When you push on the bump (the foam bump), the LED should light up!



Image source: Sara Ebersole of the Orange County Library System-Hiawasse Branch in Orlando, FL

UNIQUE SPACE AND/OR PERSONNEL NEEDS

Solo-librarian friendly. To help troubleshoot the circuits, add volunteers for larger groups.

RESOURCES

Web

"Paper Circuits" from PLIX: <https://bit.ly/3CVEHIV>

"How to Make Paper Circuits" from Science Buddies on YouTube: <https://bit.ly/3Py0bmH>

"Explaining an Electrical Circuit" from Region 10 ESC on YouTube: <https://bit.ly/44IKEKM>

Books

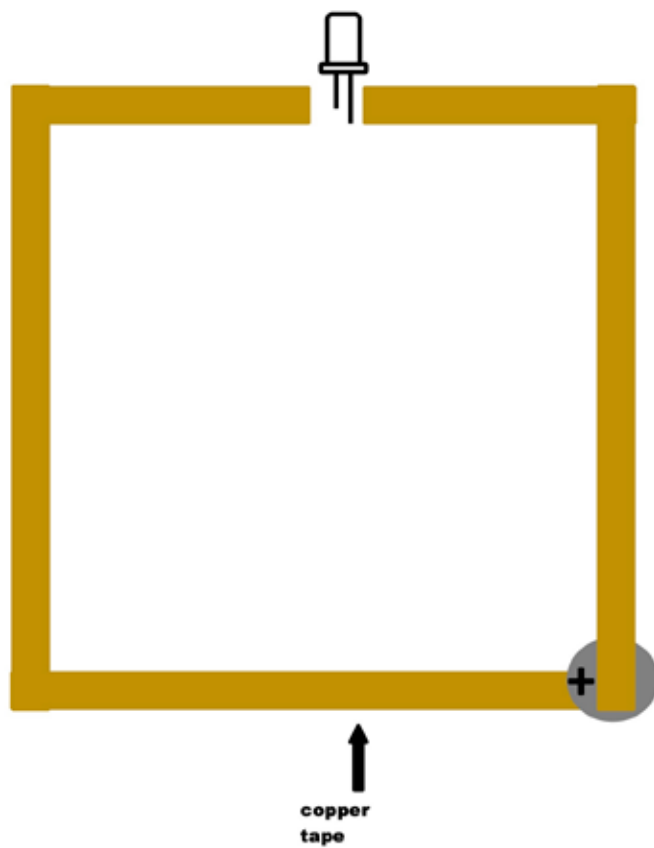
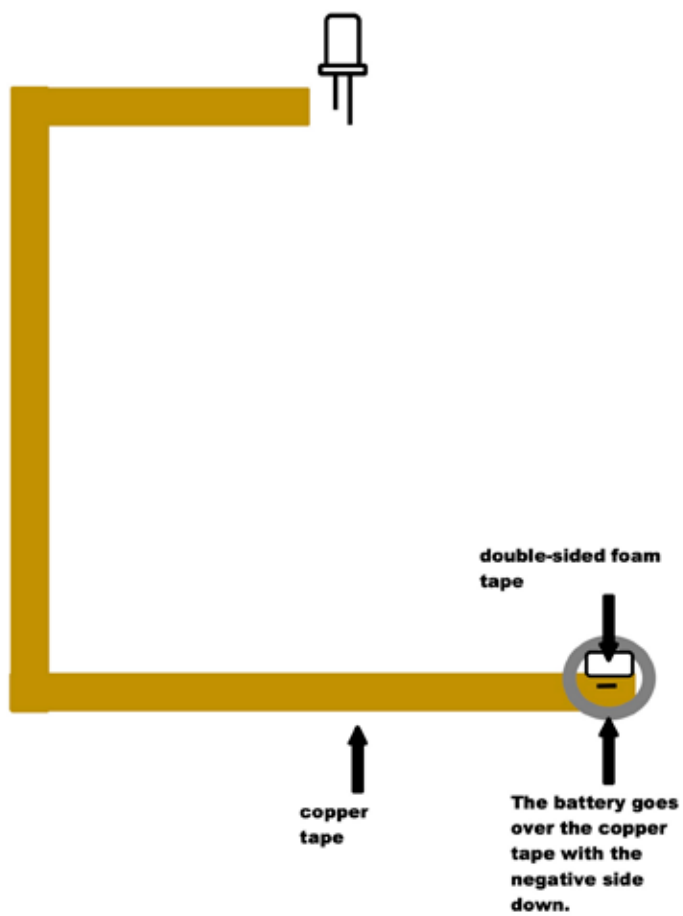
Making Simple Robots (2022) by Kathy Ceceri (middle grade NF)

Calling All Minds: How to Think and Create Like an Inventor (2018) by Temple Grandin (middle grade NF)

The Big Book of Makerspace Projects (2016) by Colleen Graves and Aaron Graves (YA NF)

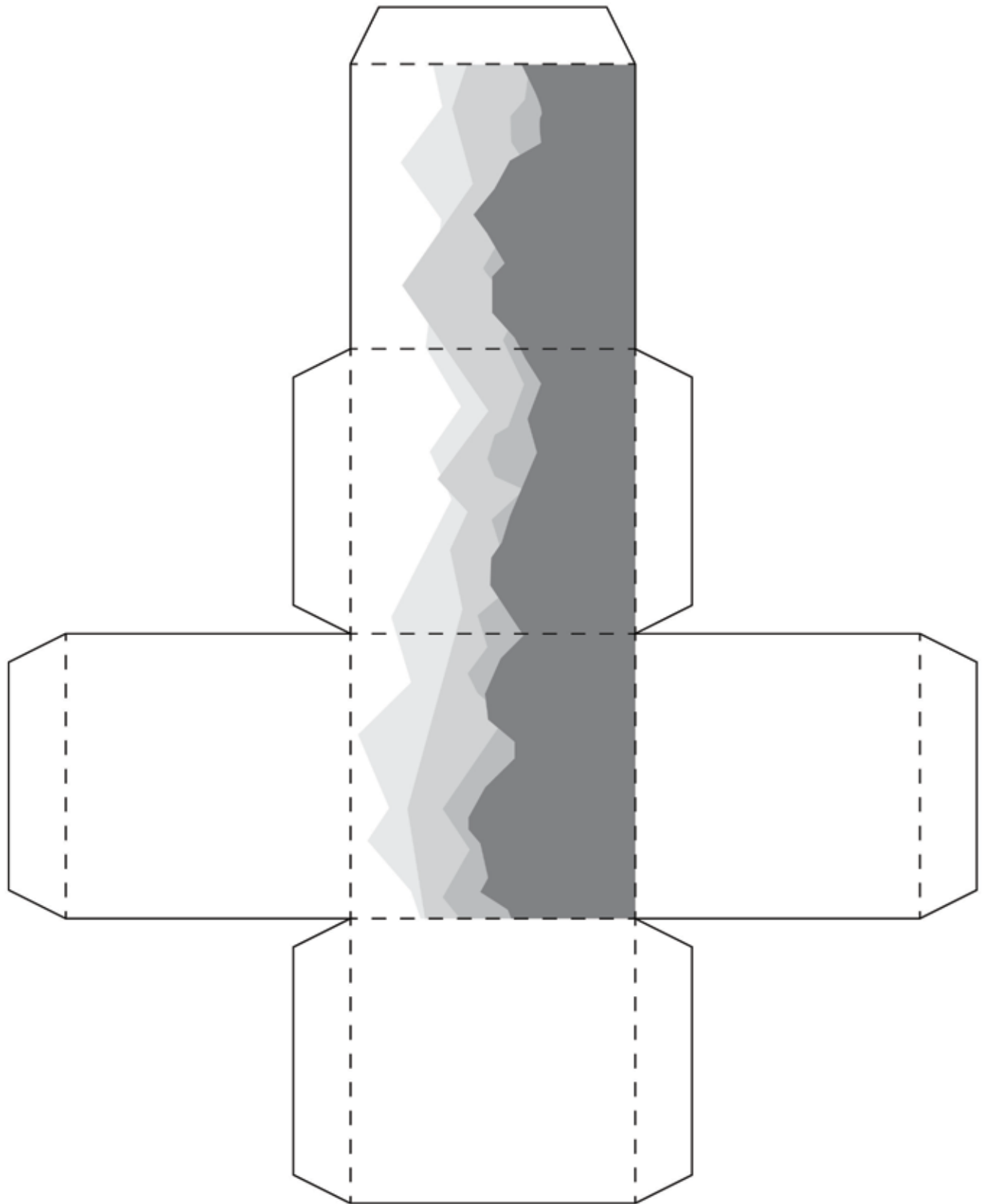
Printables

Circuit Diagram



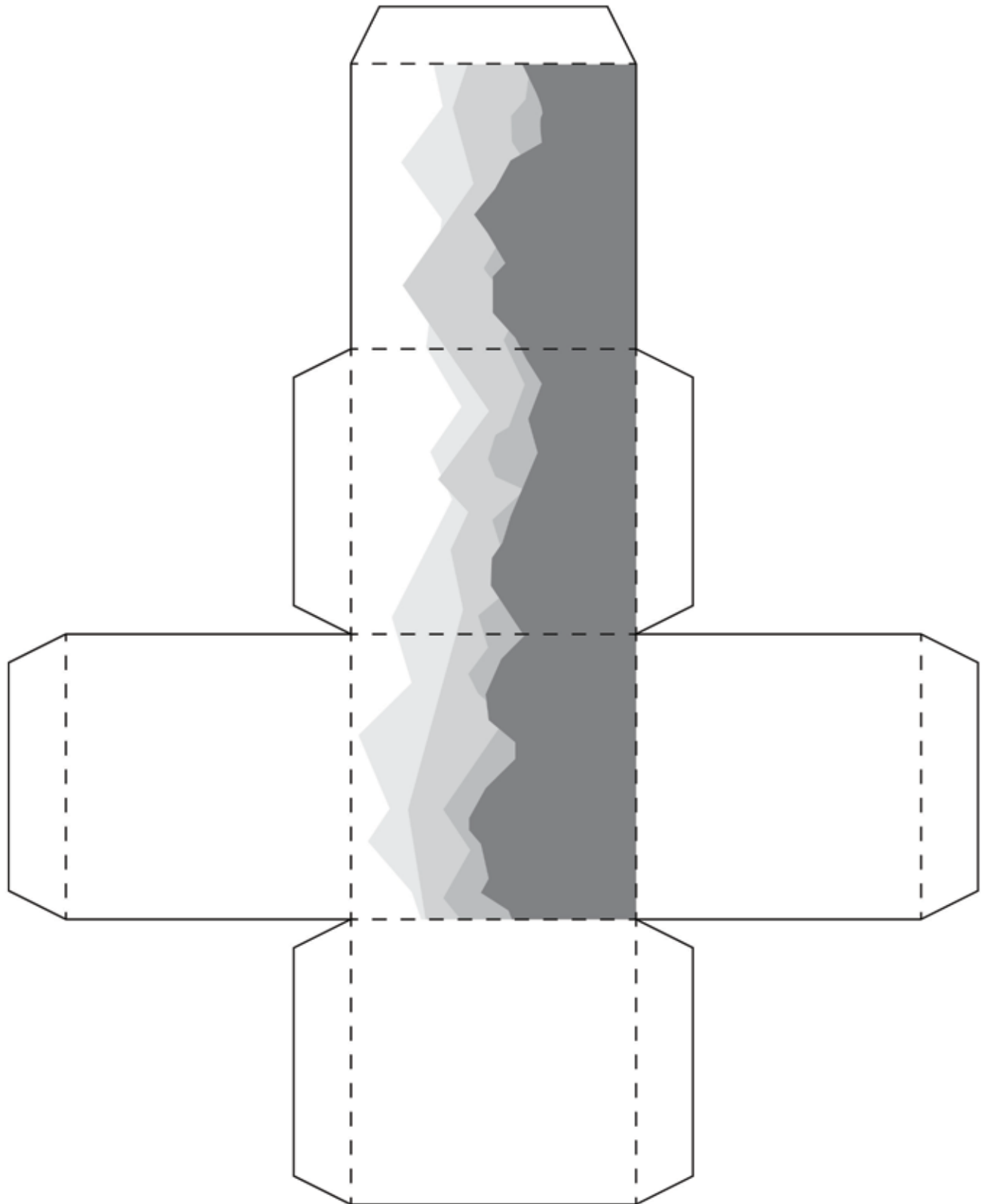
MAKE A 3D MOUNTAINSCAPE!

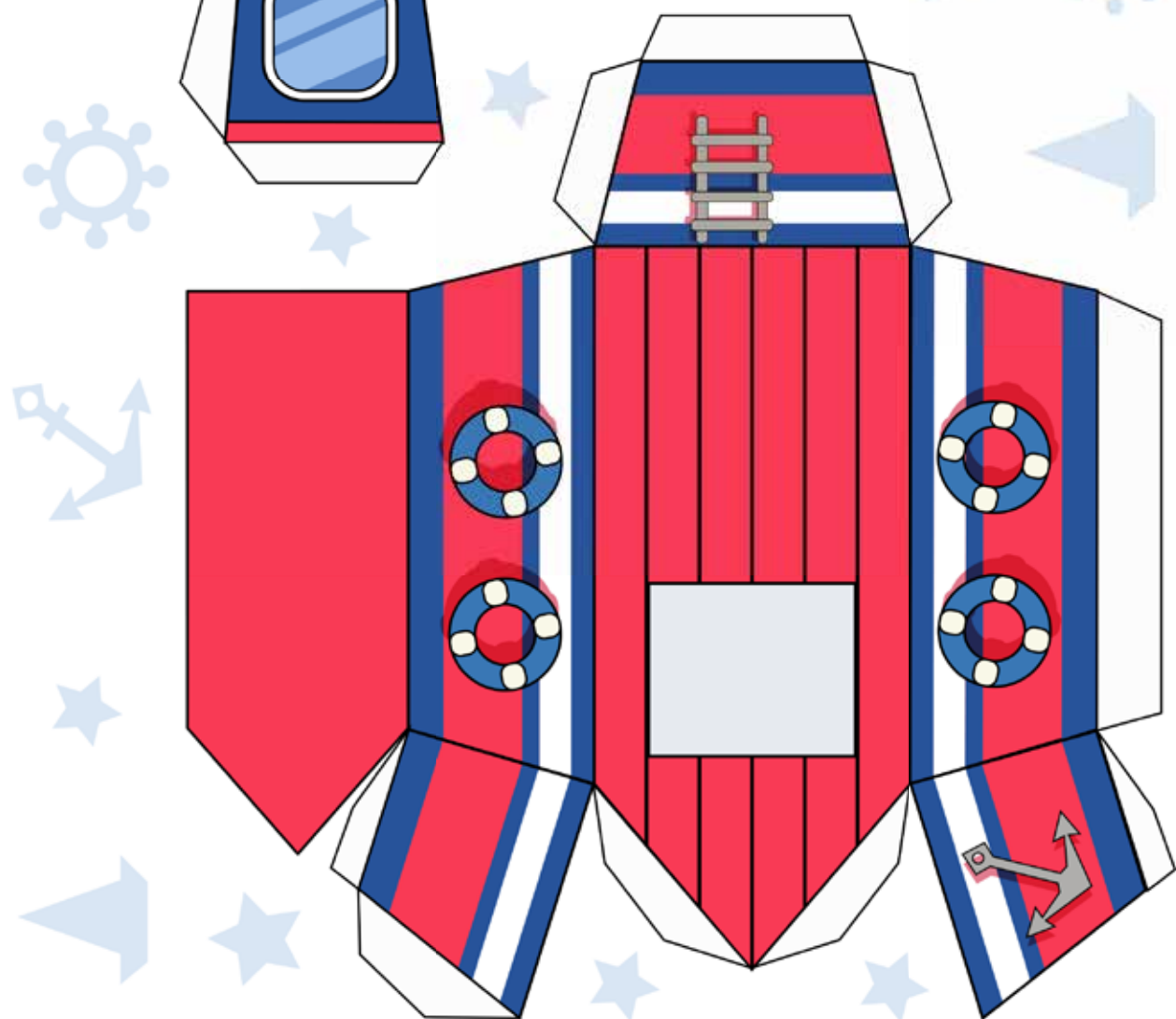
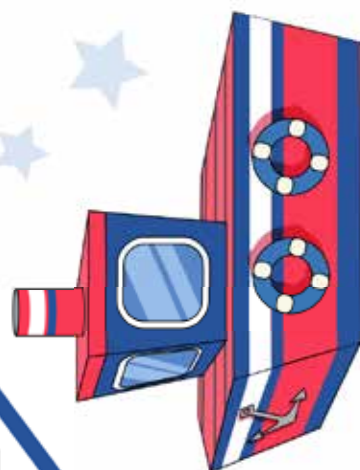
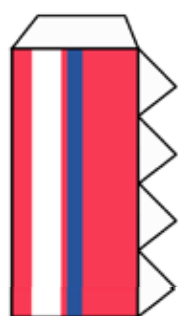
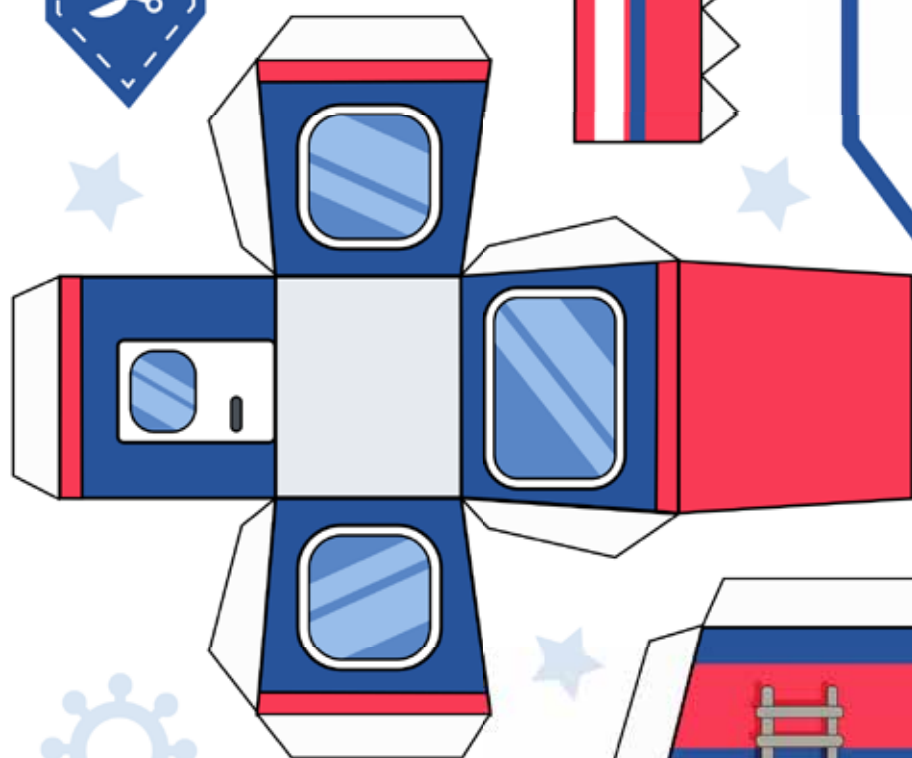
Add an adventure to this mountainscape, then cut along the solid lines. Fold along the dotted lines, and tape to secure it in place.

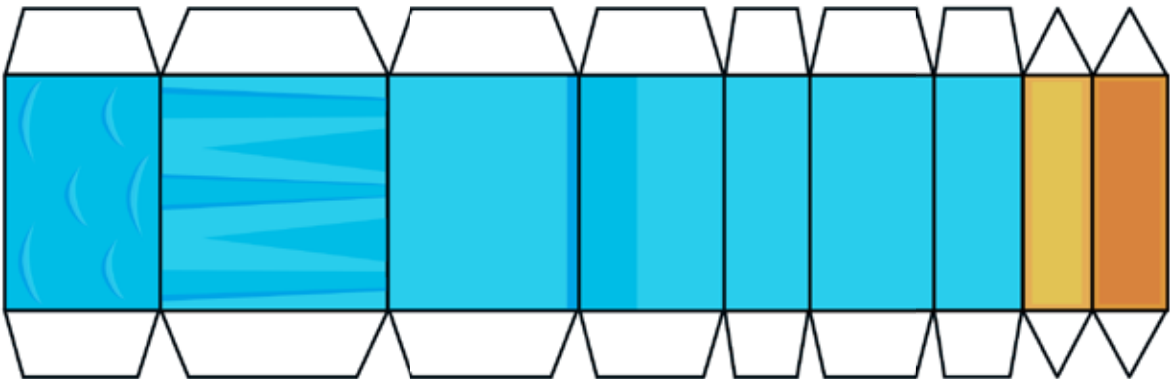
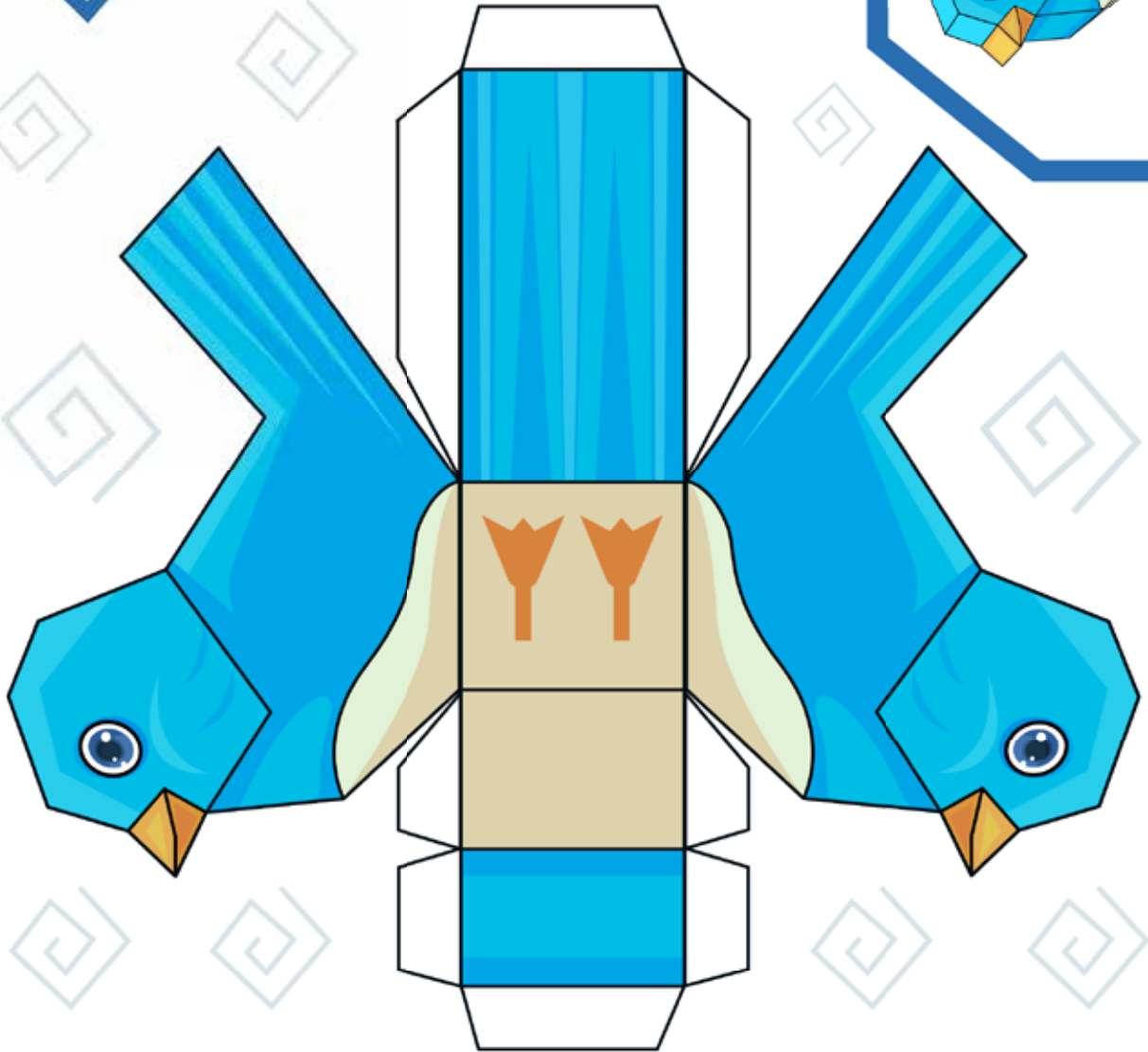
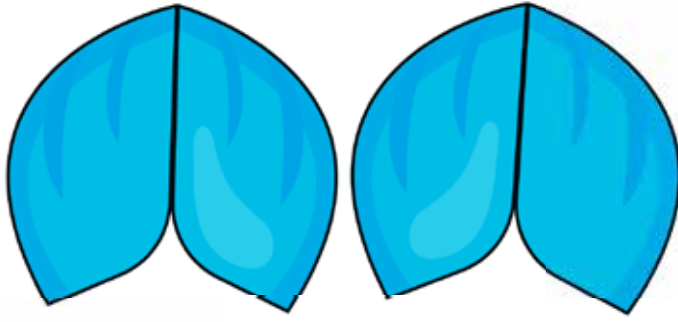


¡HAZ UN PAISAJE MONTAÑOSO EN 3D!

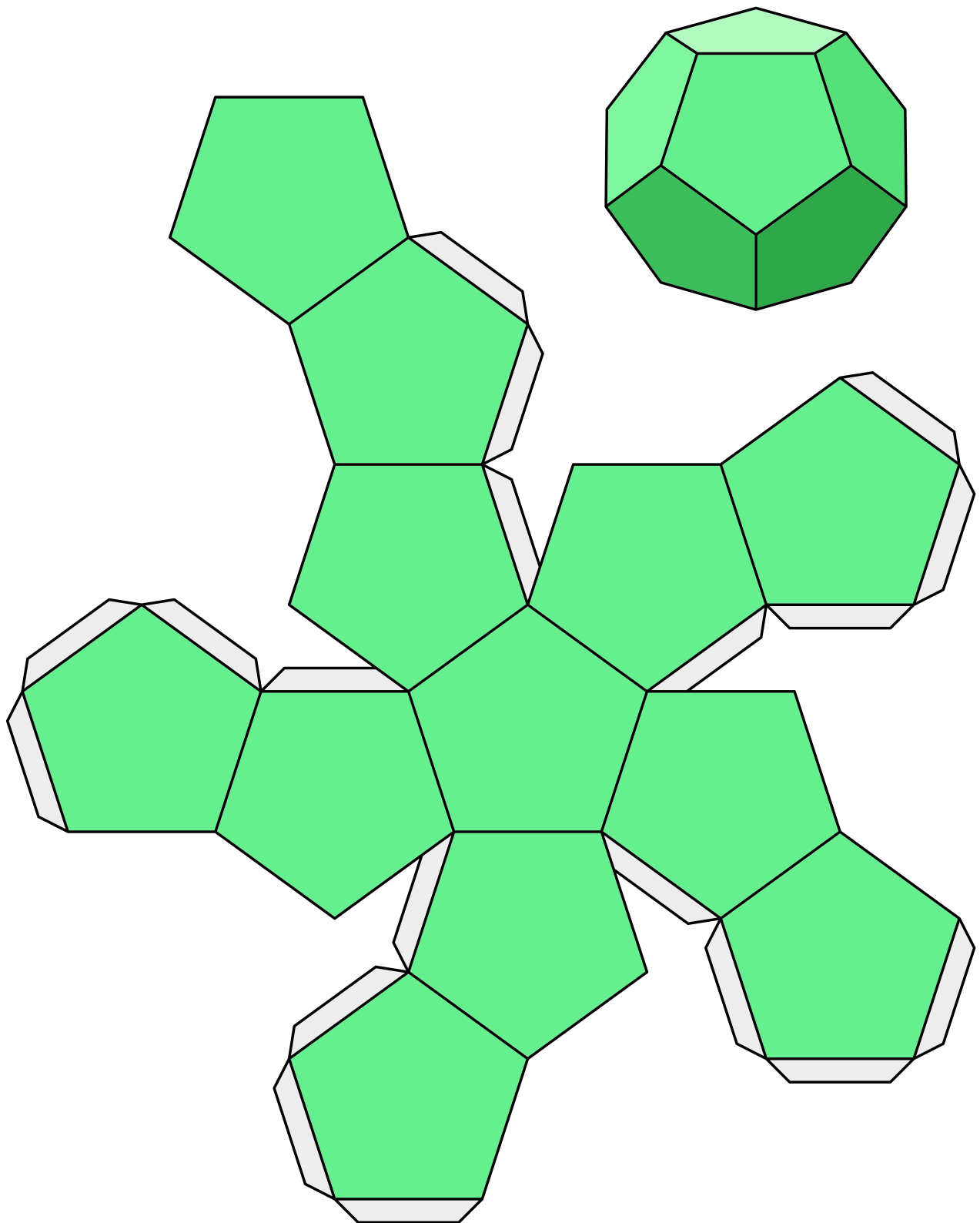
Agregue una aventura a este paisaje montañoso, luego recórtelo en una sola pieza (a lo largo de las líneas continuas). Dobla a lo largo de las líneas punteadas, luego pegue con cinta adhesiva para asegurarlo en su lugar.

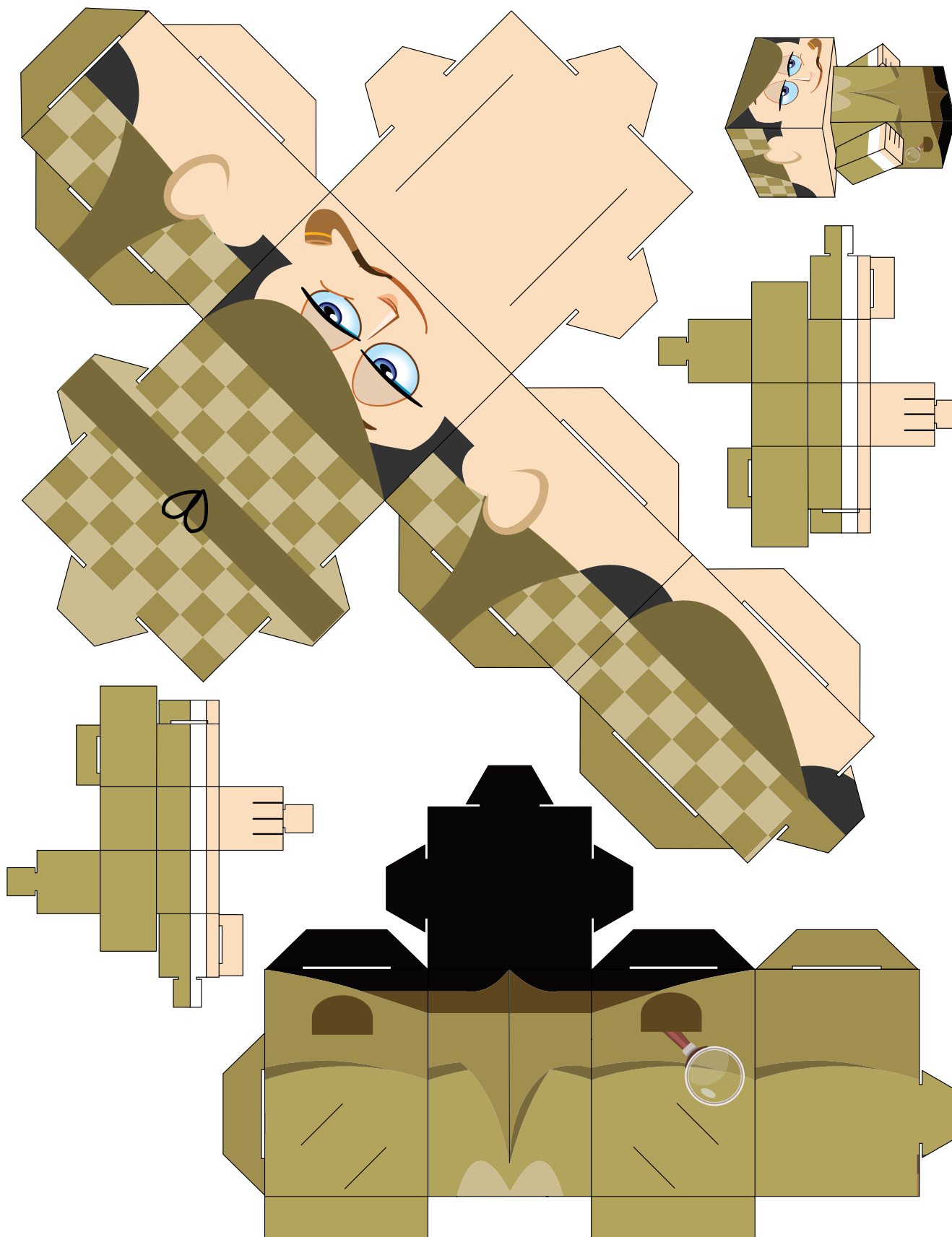


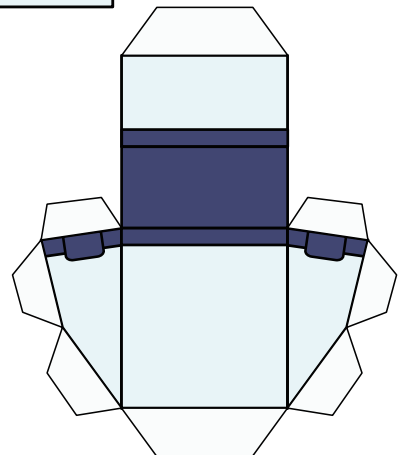
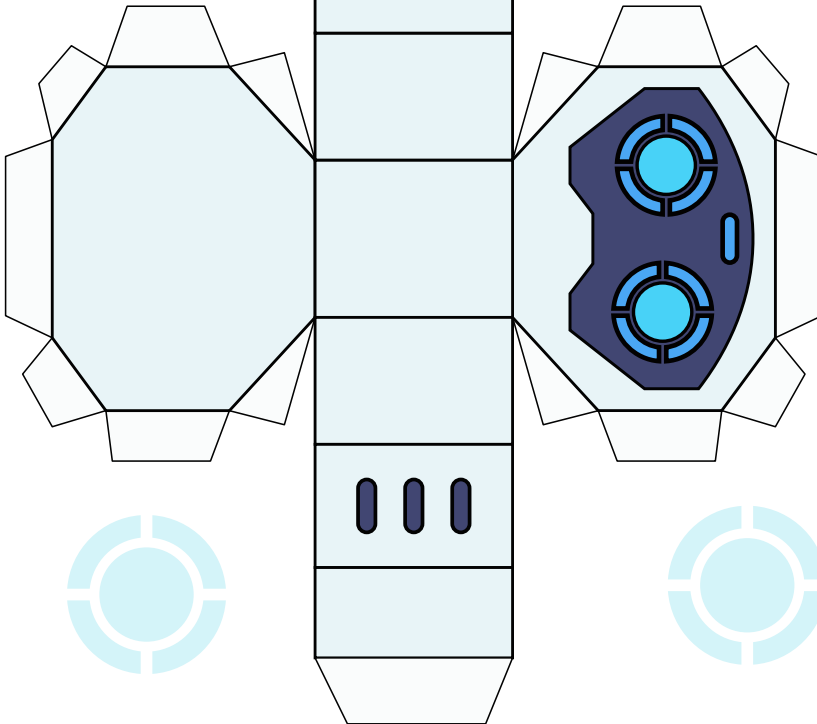
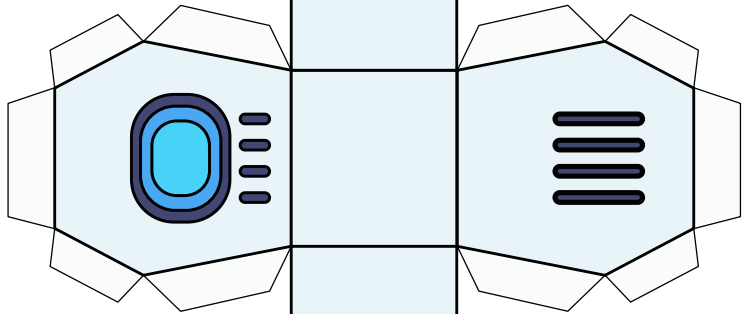
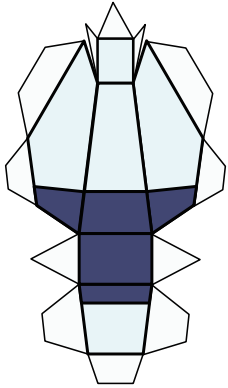
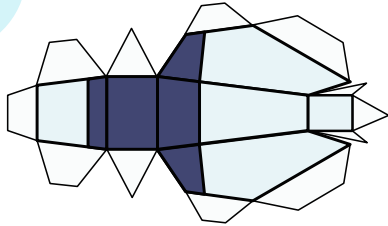
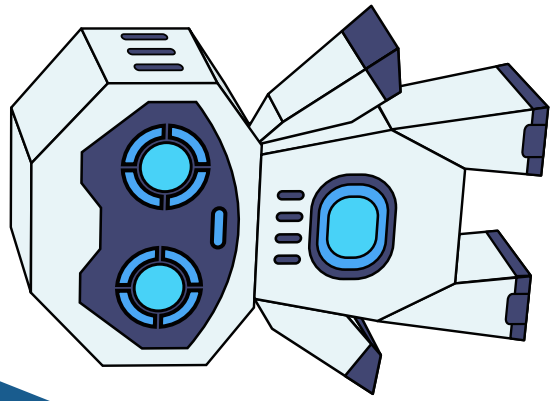
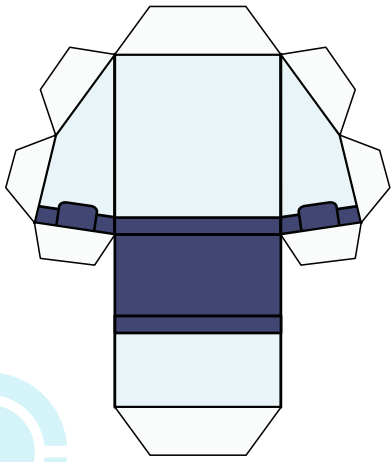




Cut & Glue







Cut & Glue!
Play

