Nature ❀ ❀ ❀

Art

STEM ⚡ ⚡ ⚡

Nature artist book

UCL

the crafting sustainabilities collective
researching at the intersection of technology and sustainability

Materials and tools

Part 1

- [Battery holder template](#)
- Foam tape
- Coin cell battery (3V CR2016)
- [Conductive fabric tape](#)
- [LED lights](#)
- [Pressure sensor](#)
- Cardstock paper 200GSM and A4 paper scraps
- Sellotape
- Frog tape

Part 2

- Flower press with blotting paper and corrugated cardboard
- Nature materials (smaller leaves, flowers)
- Tweezers
- Adhesive book cover paper

Part 3

- [Messages template](#)
- Sticky post-its
- Pencils to write with
- Generative AI (optionally)

Part 4

- Nature materials
- Acrylic paint
- Gel plate
- Brayer roller
- Double sided tape
- Sticky felt sheets
- Pens/pencils

Making an interactive book circuit

1.

Tip: you can download the battery holder template.

Powering each page

This interactive book will feature multiple page spreads. For collaborative projects, create a mini cardstock power station to give the artist more workspace. Ensure circuit lines are evenly spaced top/bottom.
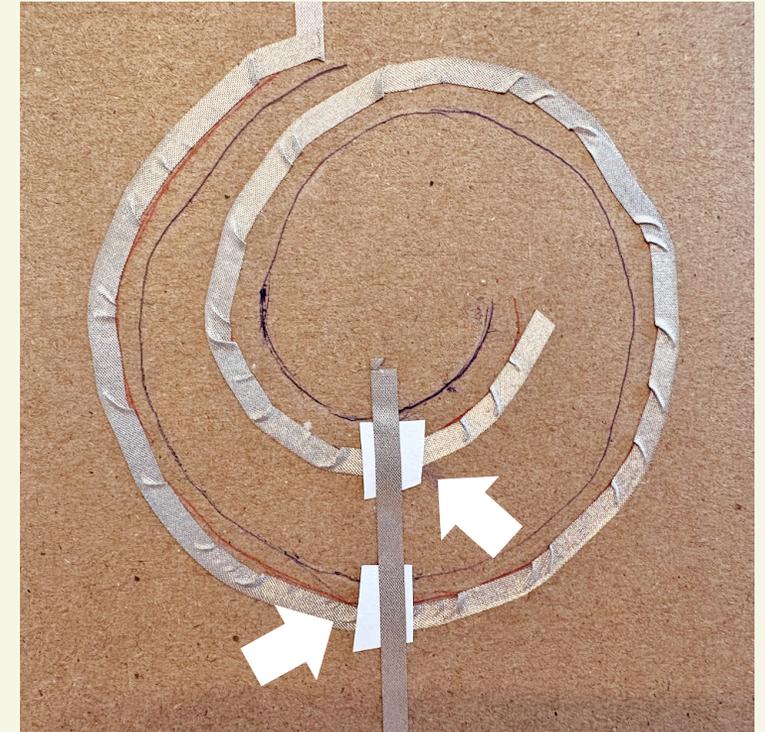
2.

Get creative with your circuit design!

Design the circuit

Fold each page in half for the spread. Connect top and bottom circuit lines to the power station with conductive tape. Draw your circuit between these two lines using a pen or pencil.
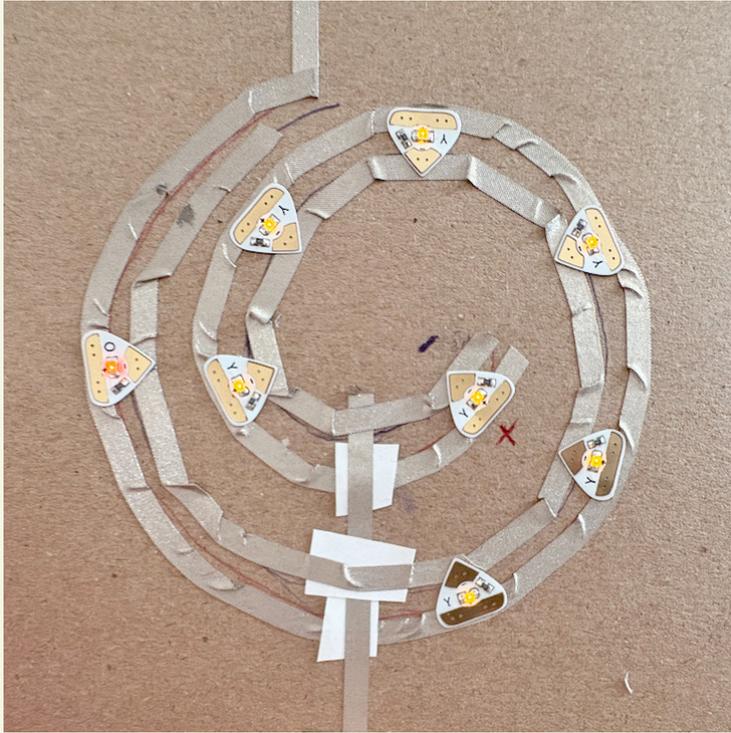
3.

Add your tape

Add each line separately – start with the positive. Use two bridges to connect the negative line and prevent contact with the positive.
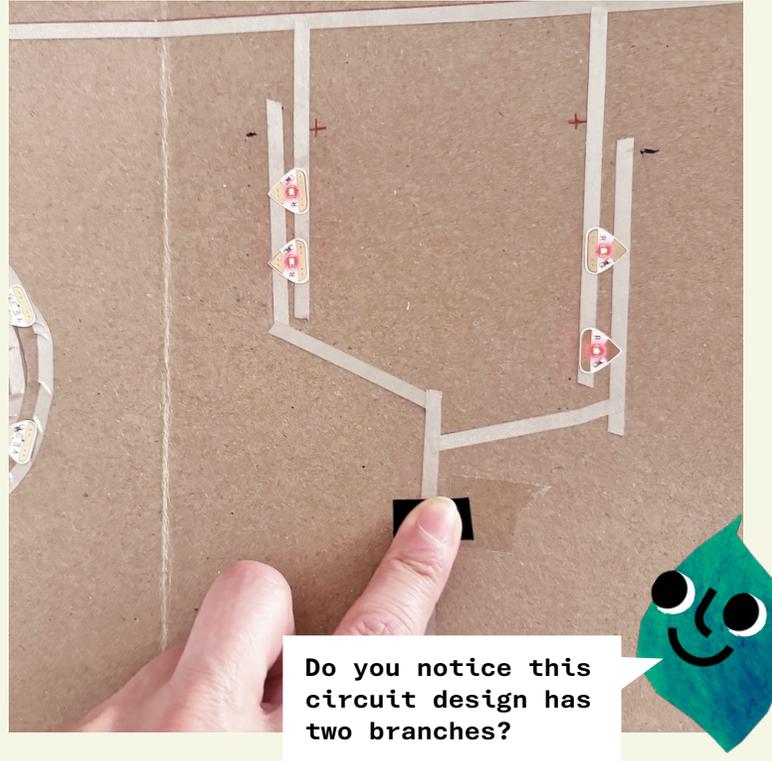
4.

Complete and test the circuit
The negative line is now complete, and all LEDs work.

5.

Do you notice this circuit design has two branches?

Add your button
To add interactivity, cut a small gap in one of the lines and cover it with the pressure sensor, securing it with Sellotape. Place it where it will interrupt power to all LEDs.

6.

Connect the pages
To connect spreads, fold your new page, flip your first page so the circuit faces down, and tape them together (e.g., with masking tape).
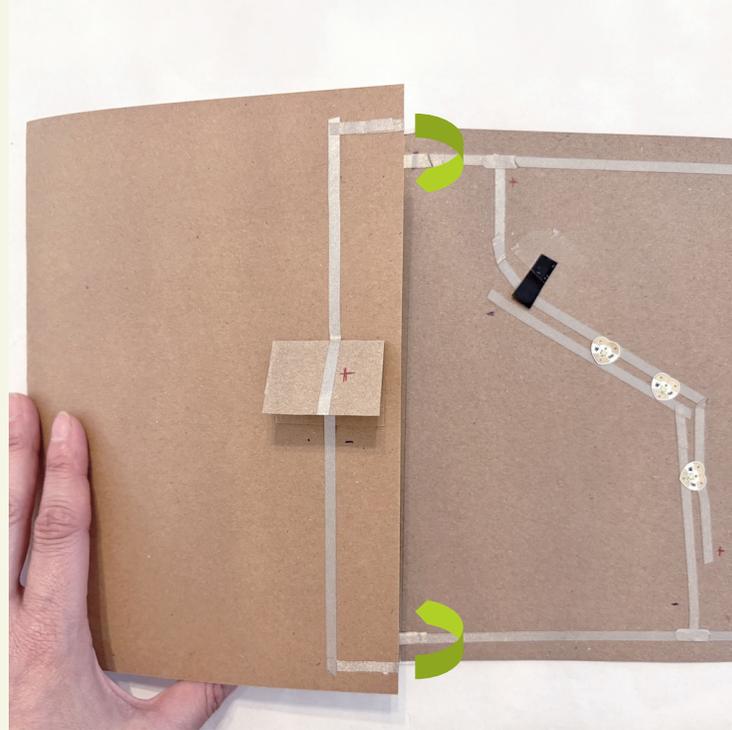
5

7.

Repeat steps 2-4 to make new creative designs.

Connect circuits across pages
As you secure spreads, extend top/bottom circuit lines, add circuits and buttons, and reinforce connections with circuit stickers.
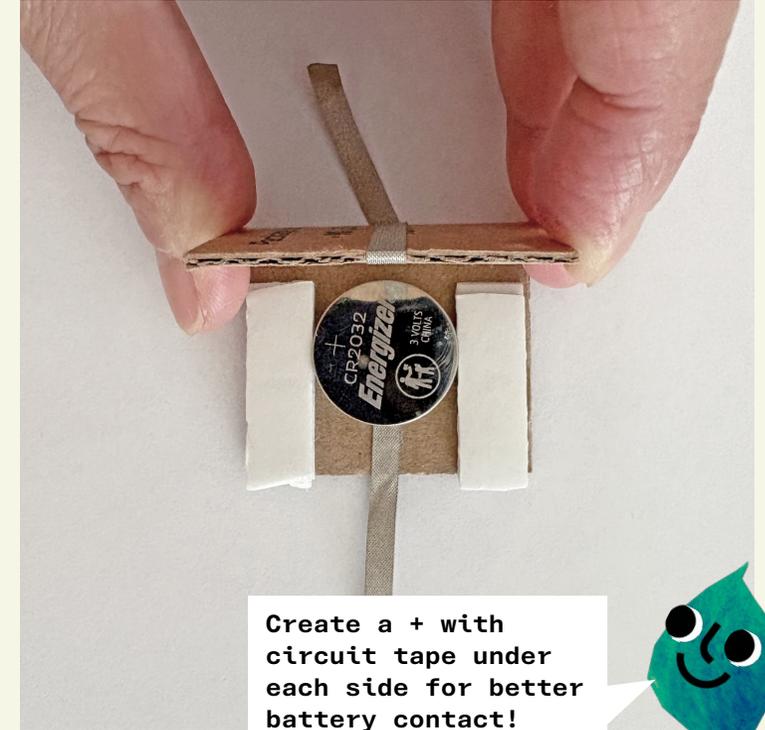
8.

Embed battery holder
On the first and last pages of your book, extend the circuit lines to the back and add a battery holder.

9.

Create a + with circuit tape under each side for better battery contact!

Remember battery pack design
Cut a 7×4 cm cardboard piece, lay circuit tape to touch the battery's top/bottom, and secure with foam tape on both sides.

Drying nature materials and sticker design

1.

Find diverse plants

Zoom into your local plants. Find interesting shapes and colours for small to medium sticker designs.
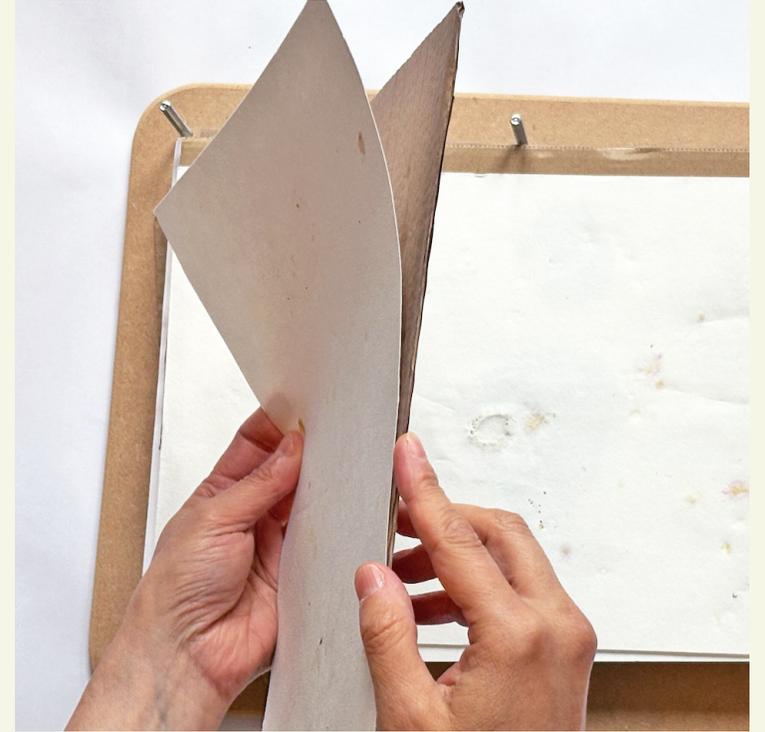
2.

Put pressure

Use a flower press or a thick book to dry and flatten your nature finds.

3.

Let in the air

Layer materials between blotting and corrugated paper to let air in and prevent mould.

4.

Tweezers at the ready – don't leave them behind!

Check in

Check daily; if blotting paper is damp, replace it gently.

5.

Oops, dry it all at once, and the skinny bits might get crinkly!

Break it down

For flowers, like daisies, with varied thickness, dry petals and centres separately and reconstruct with PVA glue or double-sided tape.
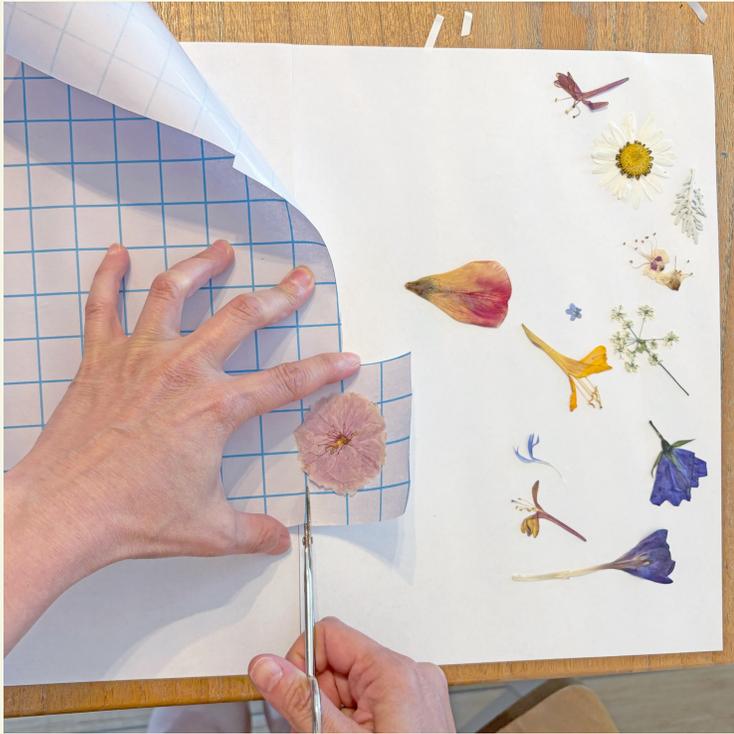
6.

Explore your dried materials

Use tweezers to carefully select the dried plants for your book. Notice the different plant shapes and colour palette?

7.

Size your stickers
Place plants on the adhesive film grid to cut to size.

8.

Follow the contour
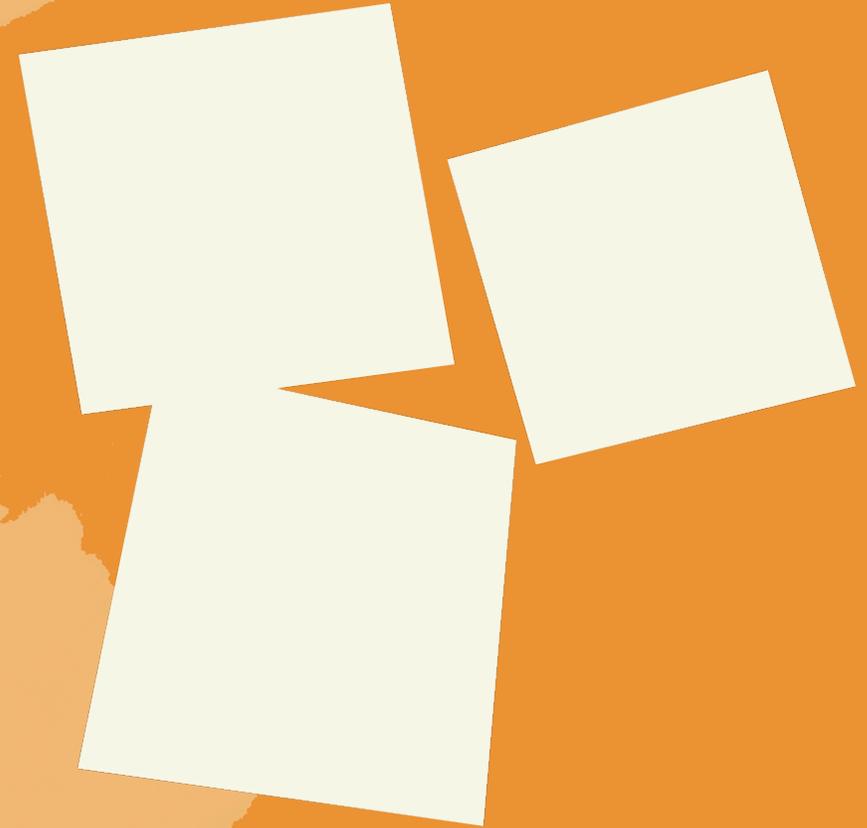Following the plant contour, cut 2cm around each flower/leaf.

9.

Notice the daisy sticker?

Collect your stickers
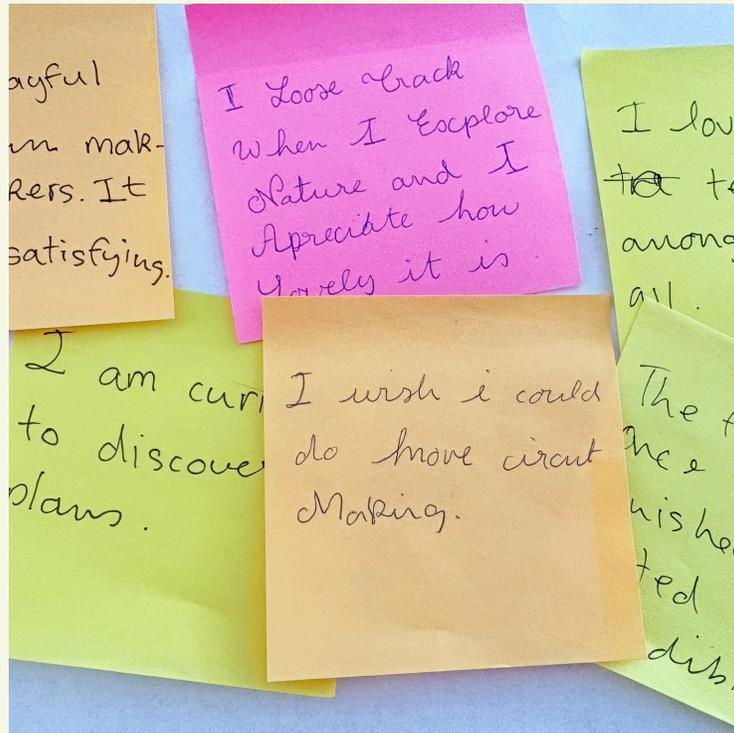Inspect your stickers-great for books or other crafts!

Creating nature messages

1.

Message generation with post-its

Guided by the message prompts, reflect on the entire craft process. Use a single post-it to express an idea.
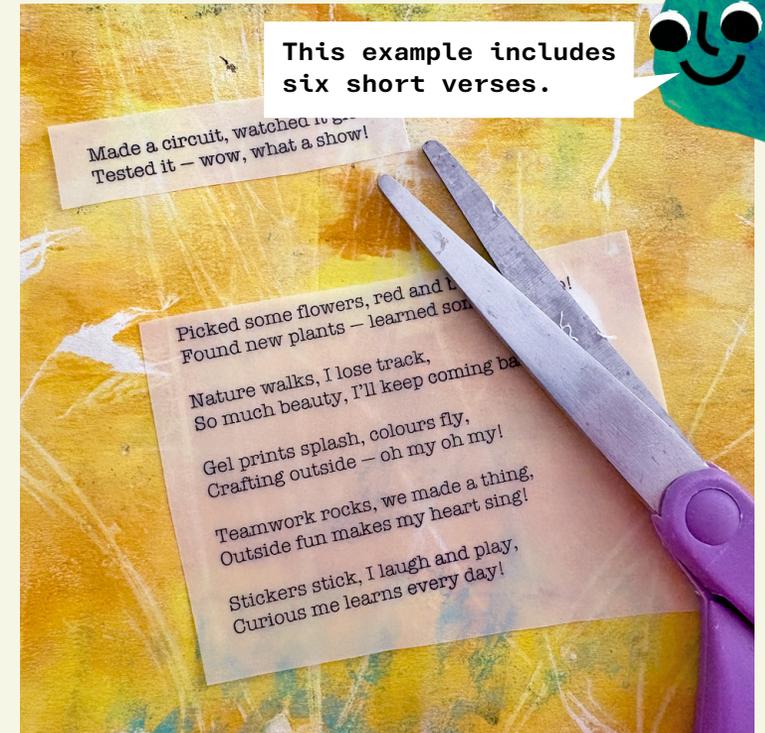
2.

Thematise and discuss

If this is a collaborative piece, take the time to read everyone's post-it messages, group them by theme, and discuss their meaning together.
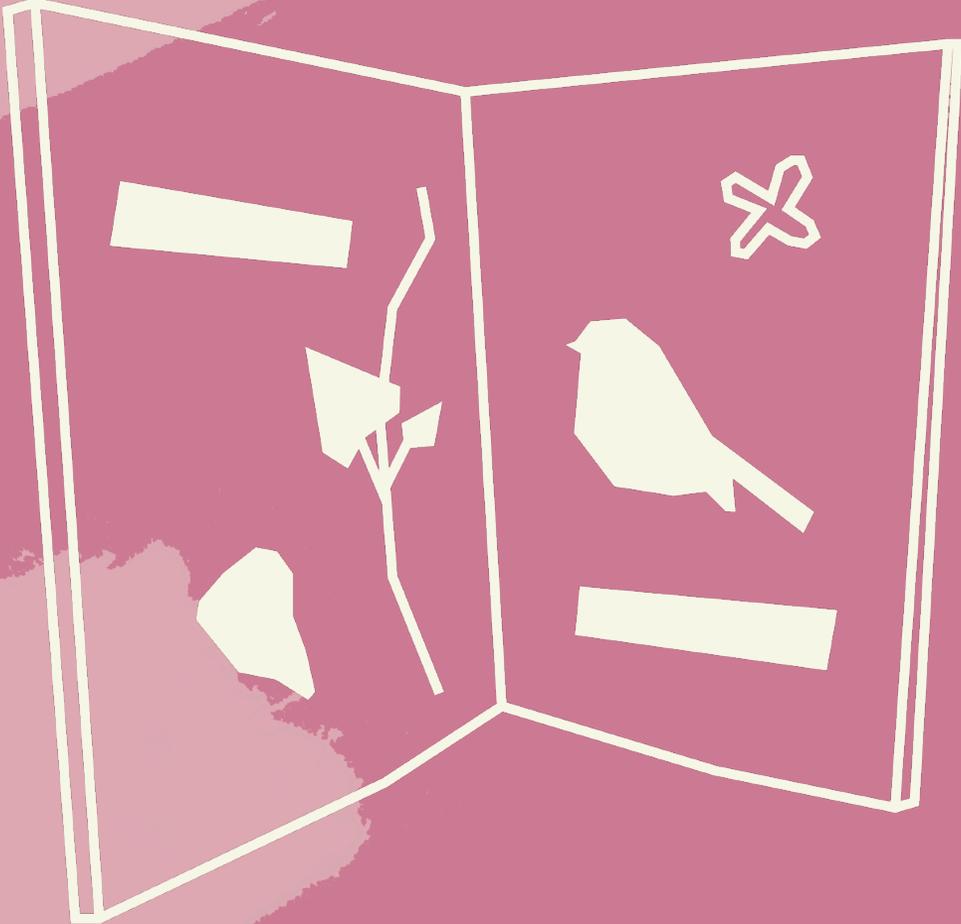
3.

This example includes six short verses.

Produce your writing

Use the messages to inspire your manifesto, or to spark new writing with AI. Paste them into ChatGPT and prompt it-e.g., to generate a rap, poem etc.

Collaging your page spread

1.

Collect nature textures

Explore your area for overlooked plants with varied textures. In this example, flowers and grasses were picked up from a nearby meadow.

2.

Avoid mixing the colours together; clean your roller on scrap paper!

Roll the paint

We will try a gradient one-layer print. Choose two contrasting and complementary colours. Roll 2-3 dots of each, spread horizontally, and repeat the process with the second colour.

3.

Compose the piece

Arrange your materials on the plate with textures facing down.

4.

If paint sticks to the gel plate, put paper down, let it dry, then peel it off!

Pick up the print

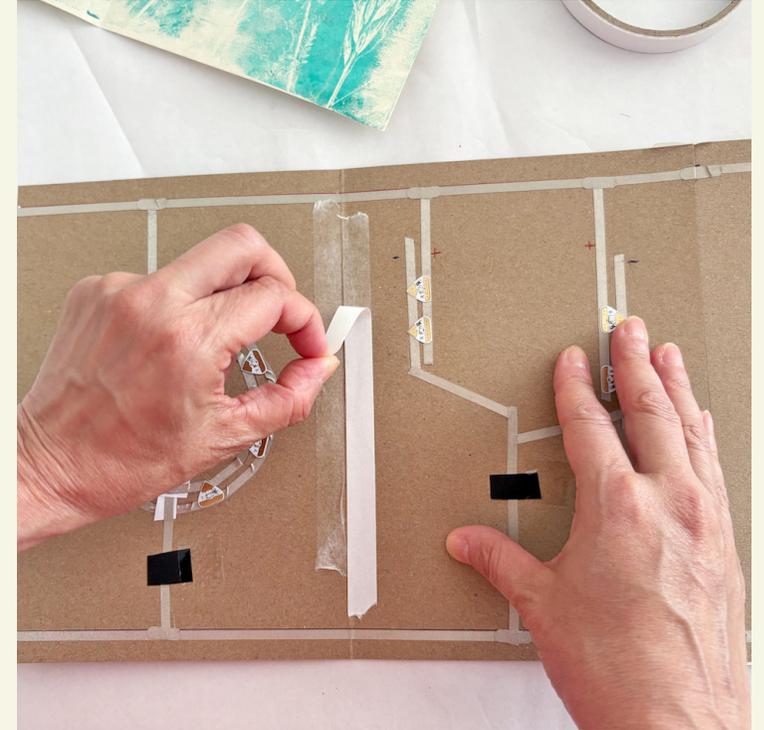Press to capture detail, remove materials, press again, then lift to reveal the print.

5.

Repeat each spread

Choose colours that complement the first print, particularly if this is a collaborative book.

6.

Attach the layers

Fold each print in half and use double-sided tape to stick it on top of the circuit.

7.

Indicate interactivity

Mark the interactive spot with a dot and add a sticky felt button to show where to press for light.

8.

Appreciate the time; creativity takes patience and play!

Collage the visual elements

Gather your messages, stickers, and cutouts. Use the circuit as a light canvas to guide your layout experimenting with different compositions.
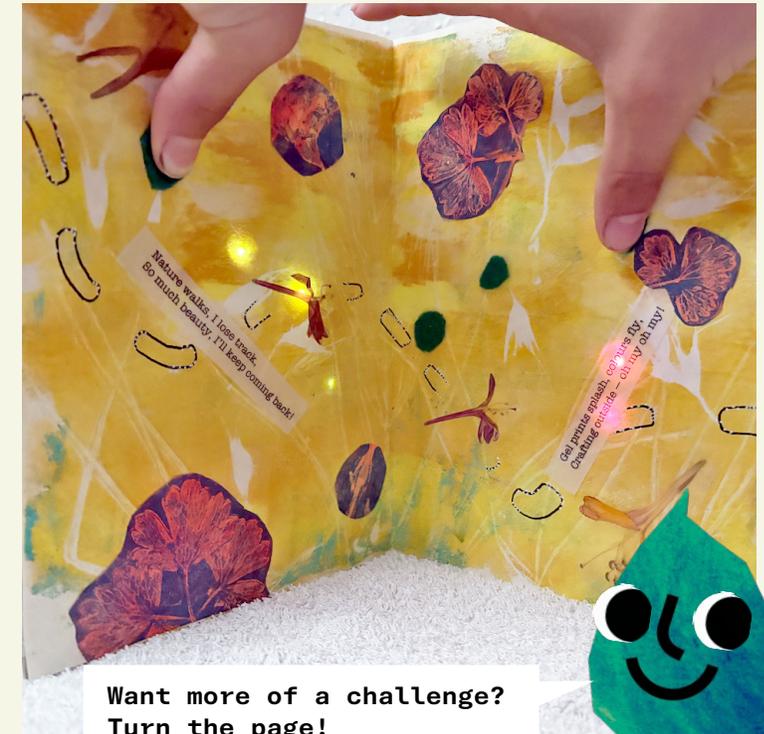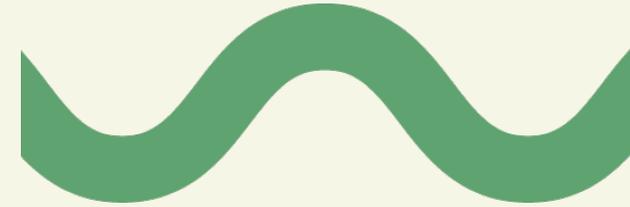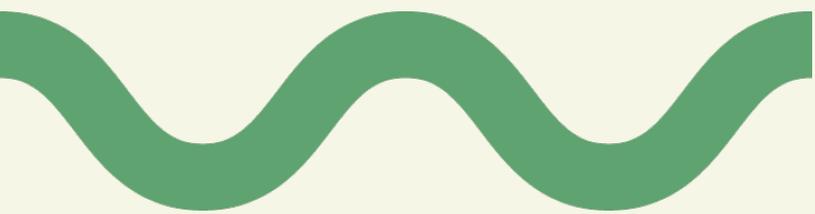
9.

And, don't forget to design your book cover!

Connect the pages

In this example, visual breadcrumbs guide a journey toward the treasure-children's gratitude through their stories.

Your nature artist book is ready!

Thank You for Reading X

Stickers stick, I laugh and play,
Curious me learns every day!

Teamwork rocks, we made a thing,
Outside fun makes my heart sing!

Made a circuit, watched it glow,
Tested it — wow, what a show!

Picked some flowers, red and blue,
Found new plants — learned something too!

Nature walks, I lose track,
So much beauty, I'll keep coming back!

Gel prints splash, creatures fly,
Crafting outside — oh my oh my!

Want more of a challenge?
Turn the page!

Use the manifesto to tell a story about a local ecosystem or environmental issue, with light circuits highlighting key moments.

Add your idea here!

Combine natural materials with fabric, thread, or recycled materials to create textured, tactile spreads.

Add your idea here!

Add light sensors or touch sensors to trigger LEDs based on environmental input (e.g., light up when it's dark), using the ChibiChip or another microcomputer. You could also add sound.

Add your idea here!