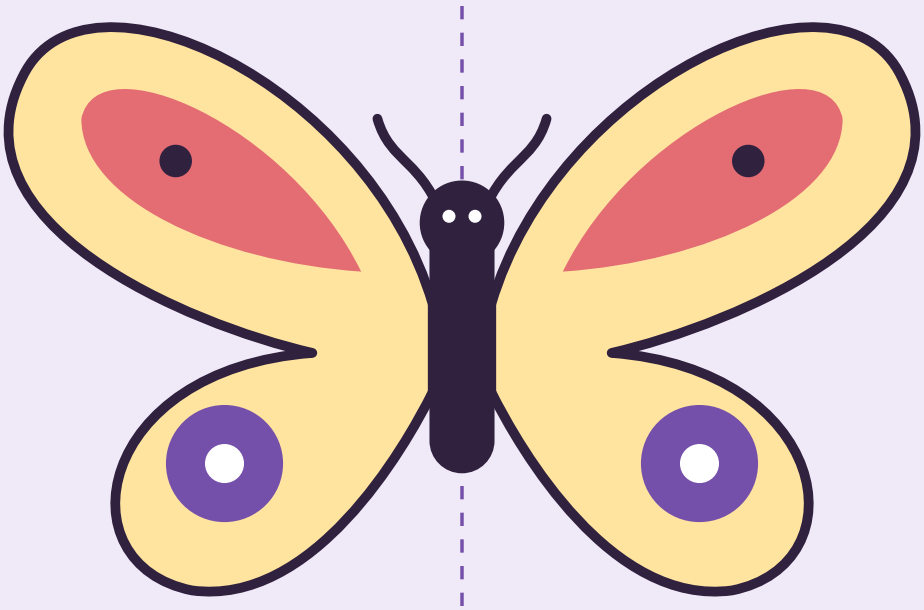
TEACHER PREVIEW

Symmetry Safari

One little mark.
A whole world of matching possibilities.



DRAW / REFLECT / DISCOVER

3 projects
Choose one to explore

35 minutes
Flexible lesson plan

Ages 4–13
With age-based options

Teacher guide + printable activity sheets + editable DoodleYak starters

SET UP

Get ready for a digital trial

Open **doodleyak.com** to begin. Tested with DoodleYak v0.8. No account is needed; paper activities work without a device.

1

Unzip the sample pack.

Keep the **starters** folder handy. Open **https://doodleyak.com** in a browser on the drawing device.

2

Open a starter.

Choose **Open > Open a file**, then choose a **.doodleyak** file. Use the project file, not its PNG preview.

3

Choose Mirror above the canvas.

Pick the option shown below. Mirror is a tool setting; the project file does not switch it on for you.

STARTER FILE	MIRROR SETTING
01-butterfly-garden.doodleyak	**Left/right**
02-mirror-creature.doodleyak	**Left/right**
03-four-way-flower.doodleyak	**Four-way**

Protect the starter. Keep the artwork.

The original outlines start **locked as a coloring page**. Children can paint and mix while those lines stay visible. Keep the lock on. Brush marks are paint; newly placed stamps, shapes, and text can be moved with Pointer.

At the end: choose **Save > DoodleYak file** to keep an editable copy. **Print** prints the art; **Save > PNG picture** makes a flat image. **Keep in My art** stays in this browser and is not a separate backup.

TEACH IT

A 35-minute symmetry safari

One project per session is enough. Leave time for exploring, talking, and saving.

TODAY WE WILL...

Find a mirror line, predict where a mark will appear, and create a picture with matching reflected parts.

5 min

Notice

Fold a scrap of paper in half. Make matching marks on opposite sides of the crease. Ask: "If we folded here, which parts would meet?"

5 min

Model

Open the butterfly starter. Choose Mirror > Left/right and Brush. Make one mark away from the middle. Pause before the next mark: "Where will its partner appear?" Show Undo.

18 min

Make

Choose an activity on page 4. Try Brush, Marker, Silly brushes, or Stamps. Predict each new mark. Use Color dropper to reuse a shade; custom colors stay in the palette.

7 min

Share + save

Ask children to point to the mirror line and a matching pair. Save an editable file. Print if useful. A partner can explain how one mark became two or four.

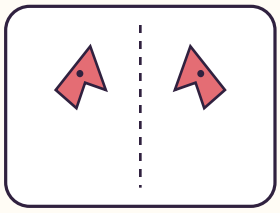
Say: "The partner is the same size, flipped across the line, and just as far from it."

CHOOSE YOUR ADVENTURE

Three ways to play

The goal is a discovery about reflection. Each finished picture can look different.

01 Butterfly garden

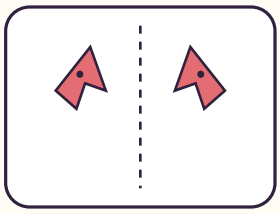


Left/right

Add spots, stripes, or little shapes inside one wing. Watch the matching wing grow. Try a silly brush for a new pattern.

Challenge: make three pairs of marks at different distances from the middle.

02 Mirror creature

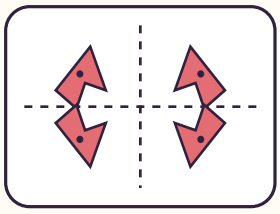


Left/right

The starter has a body but no face. Add one eye, then invent matching ears, horns, legs, or antennae. Give your creature a personality.

Challenge: predict where each partner will appear before touching the canvas.

03 Four-way flower



Four-way

Begin near the center seed. Draw a petal in one quarter of the canvas. Add dots and leaf shapes; watch them appear in all four quarters.

Challenge: explain why a mark on a mirror line may make fewer separate copies.

Four-way reflects across two mirror lines; it does not automatically make quarter-turn symmetry.

Small steps. Big discoveries.

Suggested starting points, not fixed ability groups. Let children choose a comfortable challenge.

Ages 4-6 / with an adult

Model one mark at a time. Use a large Brush and Left/right. Invite children to point to the matching mark instead of writing. A partner can handle opening and saving.

Ages 7-9 / core activity

Ask children to predict a mark, find the mirror line, and describe a matching pair. Offer all three projects and let them compare Left/right with Four-way.

Ages 10-13 / extend it

Use an uneven shape to show that reflection flips its direction. Compare Left/right, Top/bottom, and Four-way. Turn Mirror off, change one detail, then explain which symmetry remains.

Look for these three discoveries

- ☐ Points to a line that divides reflected parts.
- ☐ Predicts a reflected mark on the other side of that line.
- ☐ Finds matching size, shape, and distance from the line.

A child can show or tell you. Judge the idea, not neatness, reading, or mouse control.

Paper works too

Print one activity sheet per child in landscape. Fold on the dotted line (both lines for the flower), then open it. Add a mark and draw its reflected partner. Approximate matching is fine; discuss what would line up when folded.

Keep examples playful: real animals are not perfectly symmetrical in every detail.

TRIED IT? SHARE TEACHER FEEDBACK

forms.gle/etDiffEteukksZ9a6 (Google Form)

For adult feedback. Please leave out student names.