

LESSON IDEA

Symmetry in nature

ART & DESIGN

MATHS

SCIENCE



Learn with
Procreate[®]



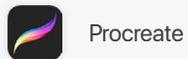
Lesson ideas

Use these Lesson Ideas to spark your imagination for using Procreate in the classroom. Feel free to take them further and make them your own.

Symmetry in nature

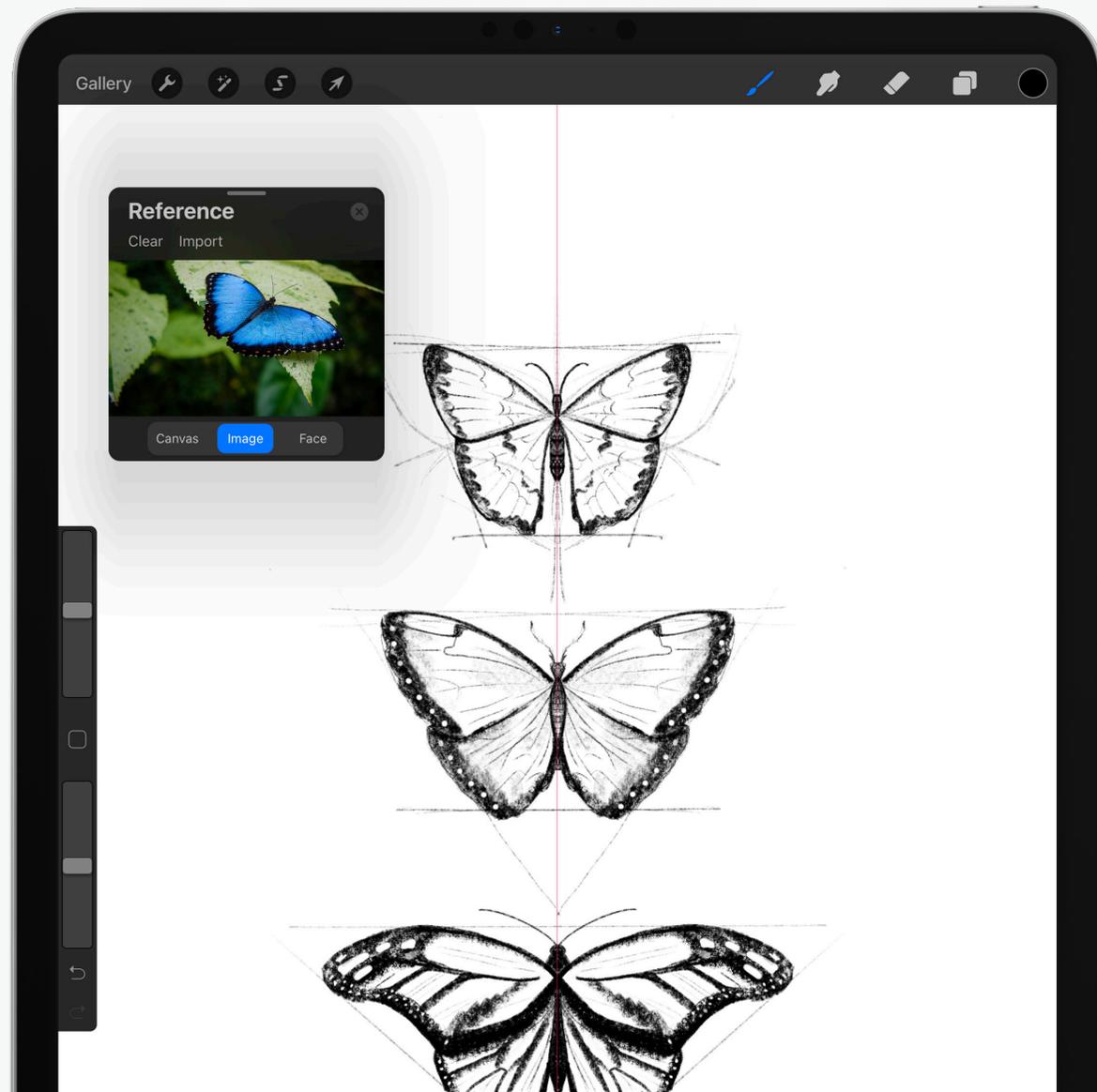
Observe symmetry in the world around you, and make the most of Procreate's Drawing Assist mode to recreate some of nature's most amazing critters.

All you need is an iPad and the following apps:



Educational Value

- ✓ Students understand mathematical principals of bilateral and radial symmetry, and identify the different shapes that enable the creation of symmetrical designs.
- ✓ Students develop planning skills for art-making by exploring digital art techniques and processes.



In this guide

1	Research
2	Reference image
6	Symmetry tool
8	Sketch
10	Refine your design
13	Inking
14	Adding color
16	Take it further

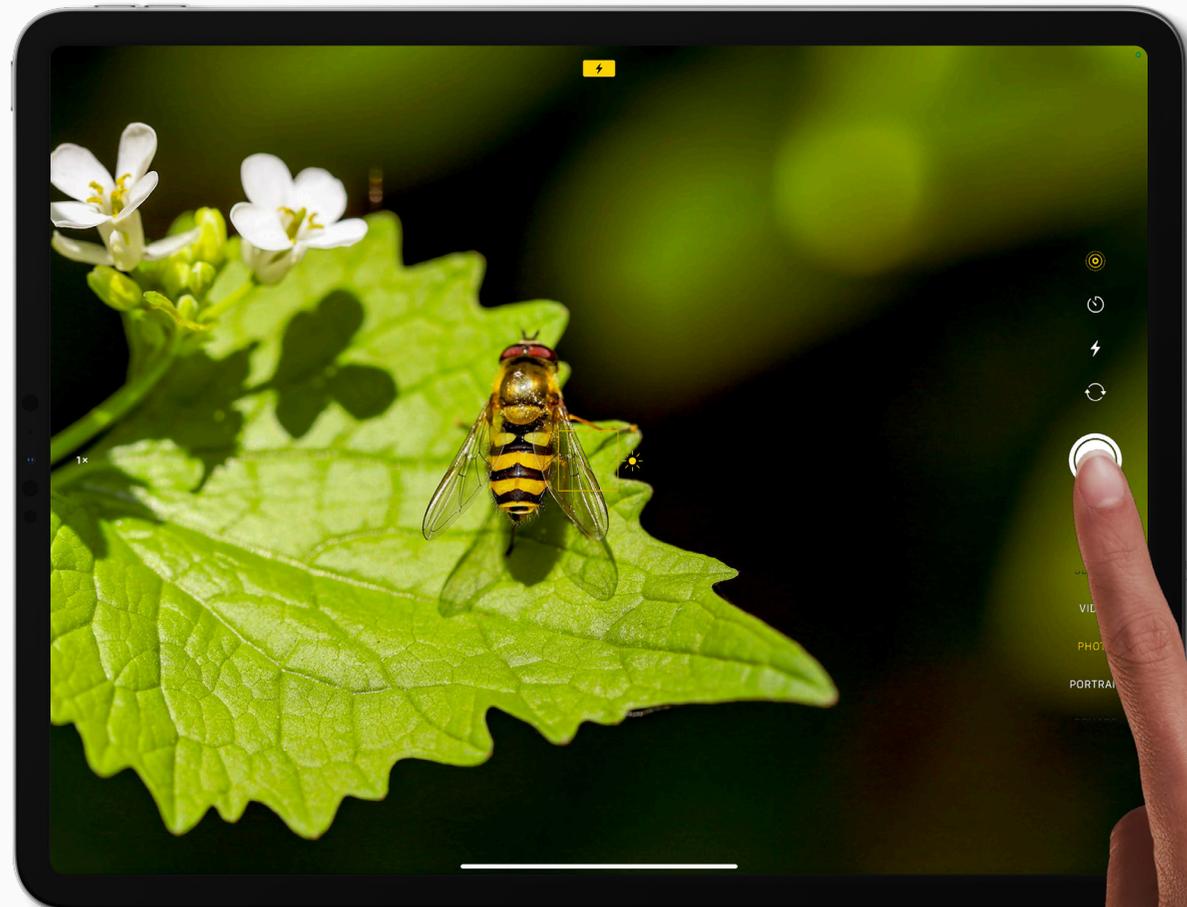
Research

1.

Observe and document

Put on your explorer hat and try to find things in the natural world that are symmetrical.

Your exploration might involve a walk outside to photograph leaves and insects using your iPad's *Camera*, a trip to your local museum, or time spent in *Safari* researching creatures from distant lands.



Camera

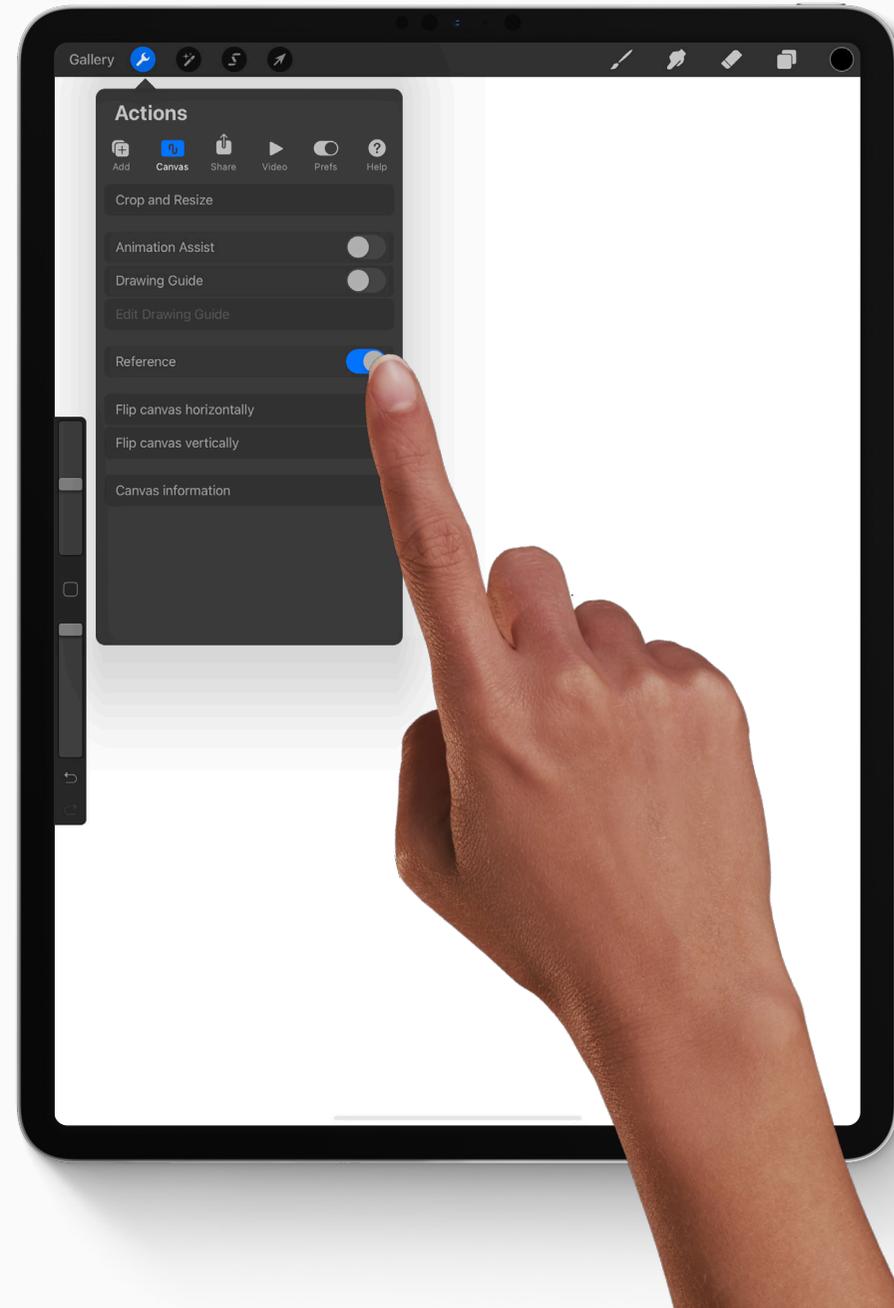


Reference image

2.

Create a canvas

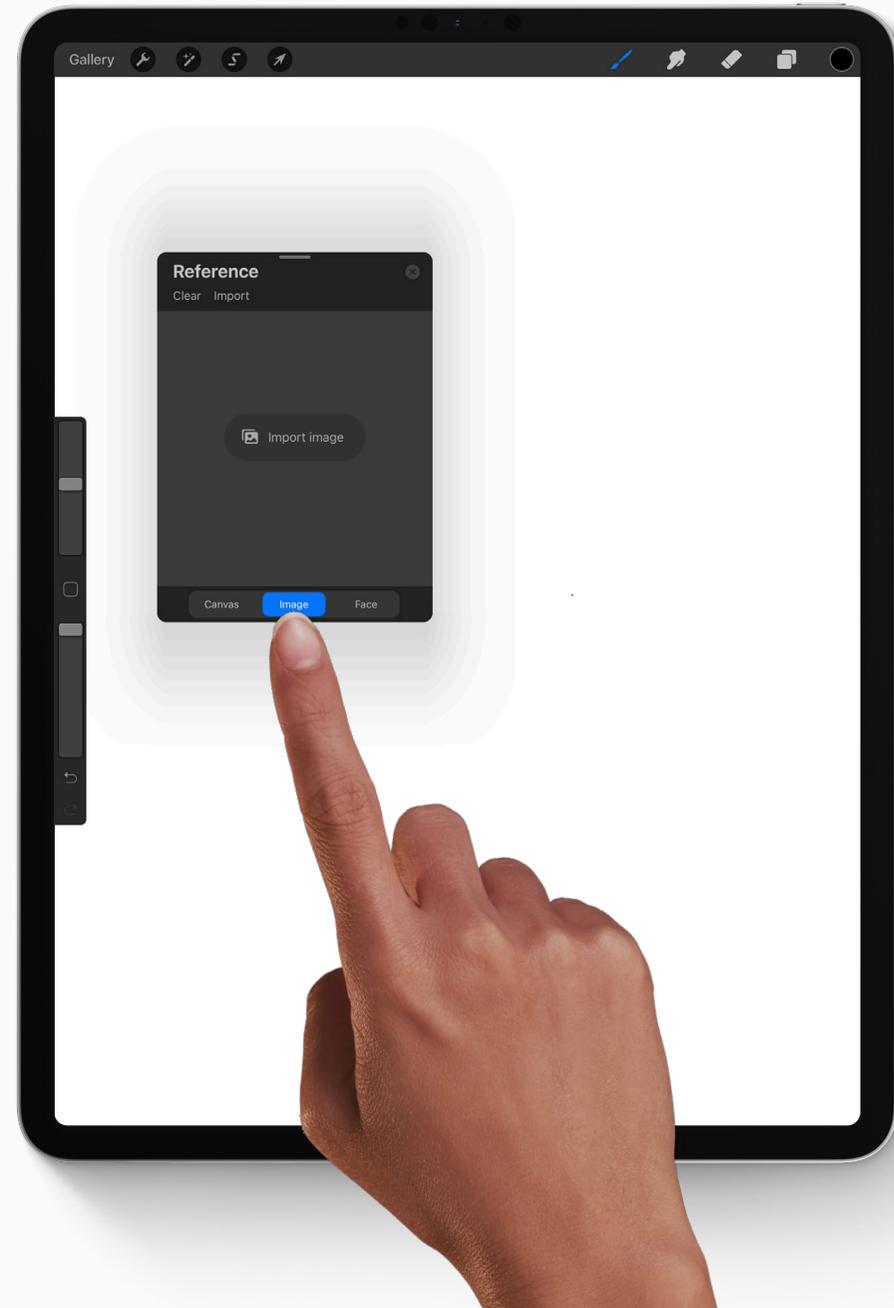
- 1 Start by creating a new A4 canvas.
- 2 Tap the wrench icon in the top right-hand corner to open the *Actions* menu.
- 3 Tap *Canvas*.
- 4 Slide the toggle on next to *Reference*.



Reference companion

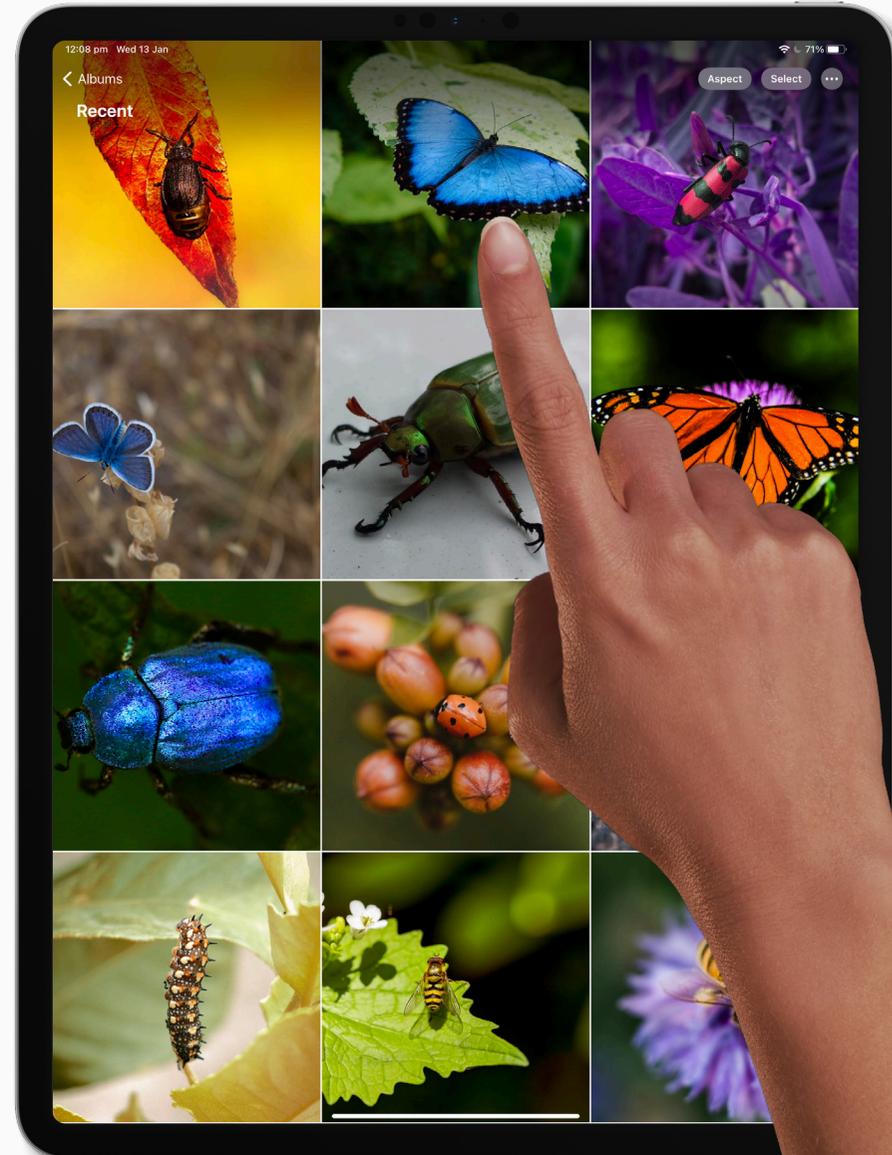
You'll see a new window appear on your canvas. This is the *Reference companion*. Here you can add an image to refer to while you sketch without it taking up room on your canvas.

Tap *Image*, and then *Import Image*.



Choose an image

Tap an image from your research that you would like to use for inspiration.

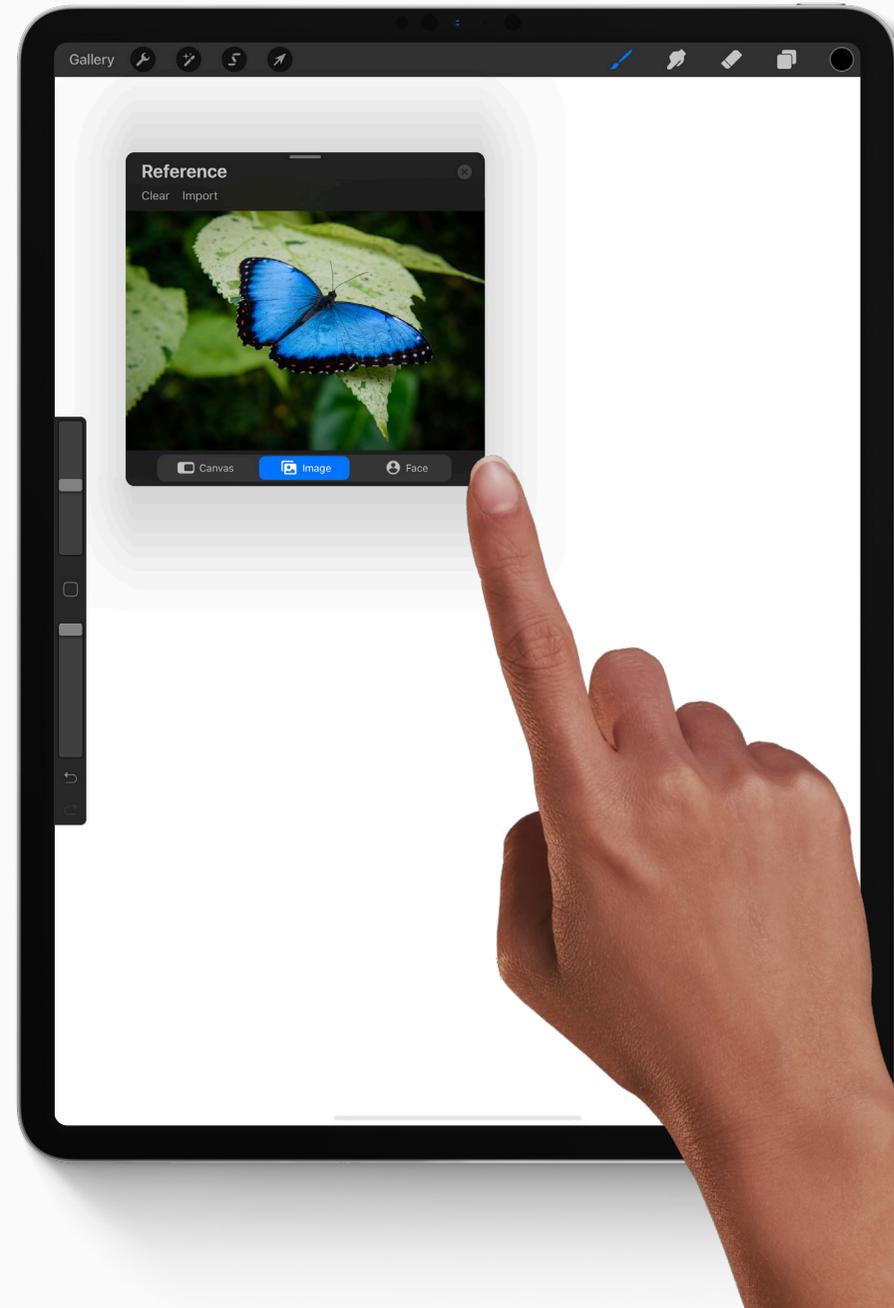


Using reference companion

You can grab the handle at the top of the Reference companion to move it around, and resize it by dragging from the corners.

TOP TIP

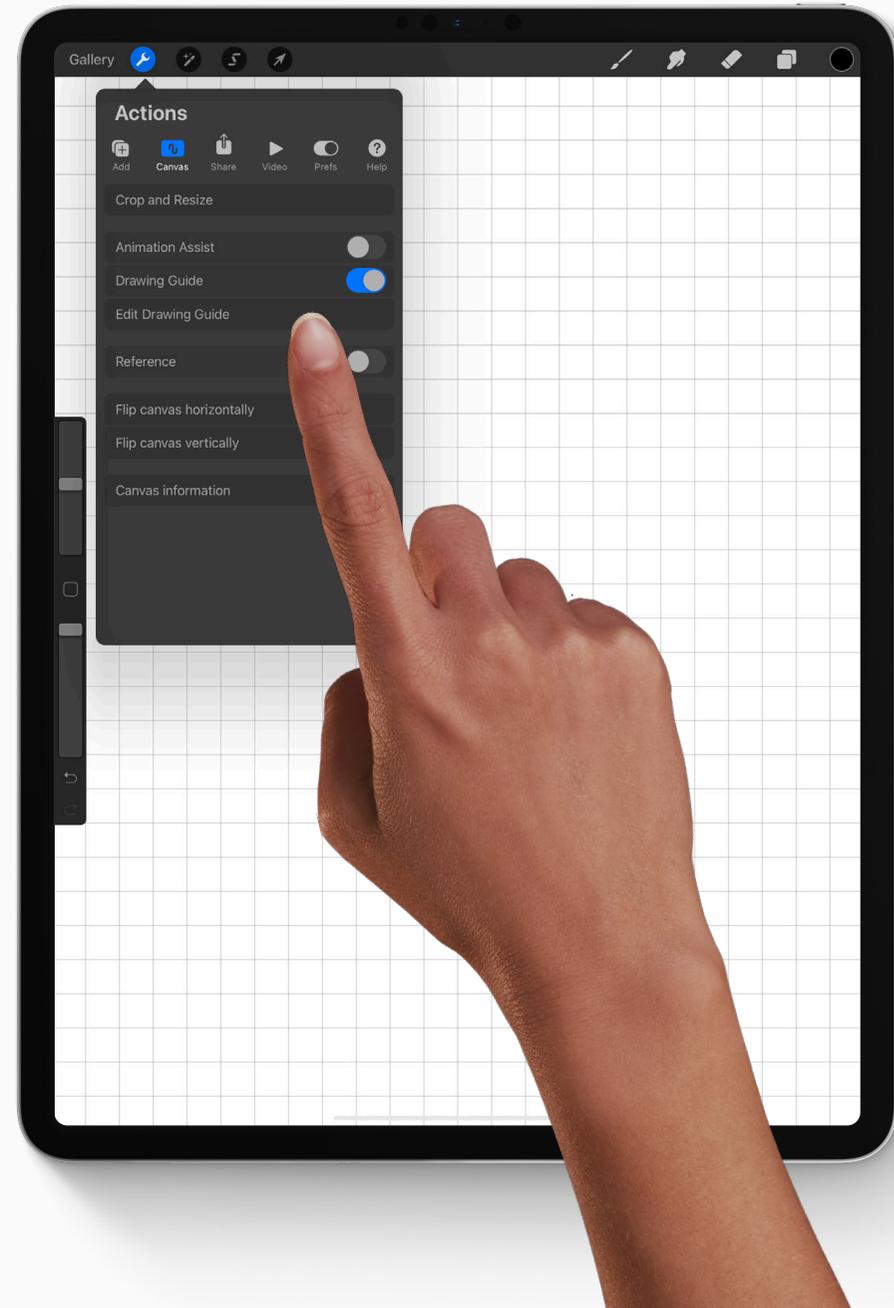
If you want to use a different reference image, just tap *Clear*, and then *Import* again.



Symmetry tool

Turn on the Symmetry Guide

- 1 Tap *Actions*, then *Canvas*.
- 2 Toggle on *Drawing Guide*.
- 3 Tap *Edit Drawing Guide*.



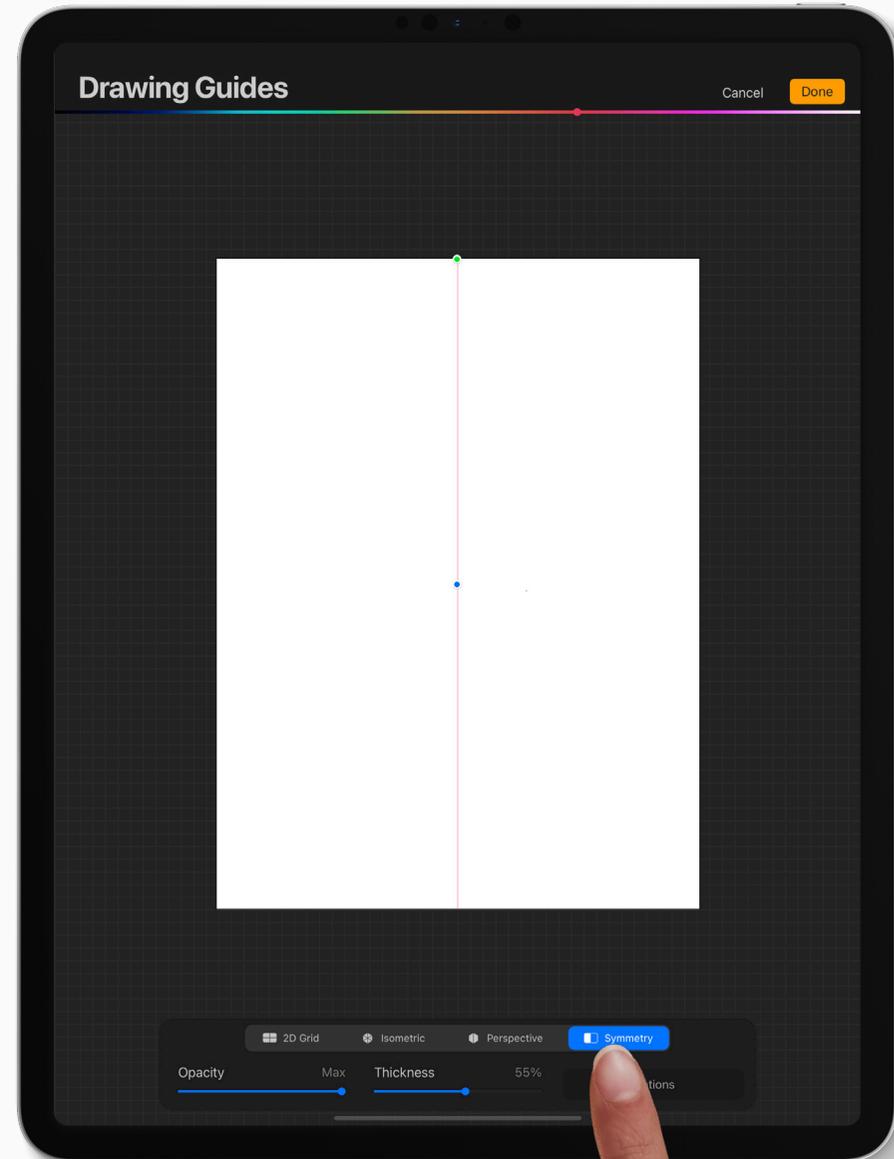
Edit drawing guides

Select *Symmetry* from the four Guide options across the bottom.

- * You can change the color of the guide using the rainbow slider across the top.
- * You can make the guide line thicker or less see-through using the sliders across the bottom.

Tap *Done* to return to your canvas.

CHANGE
GUIDE COLOR

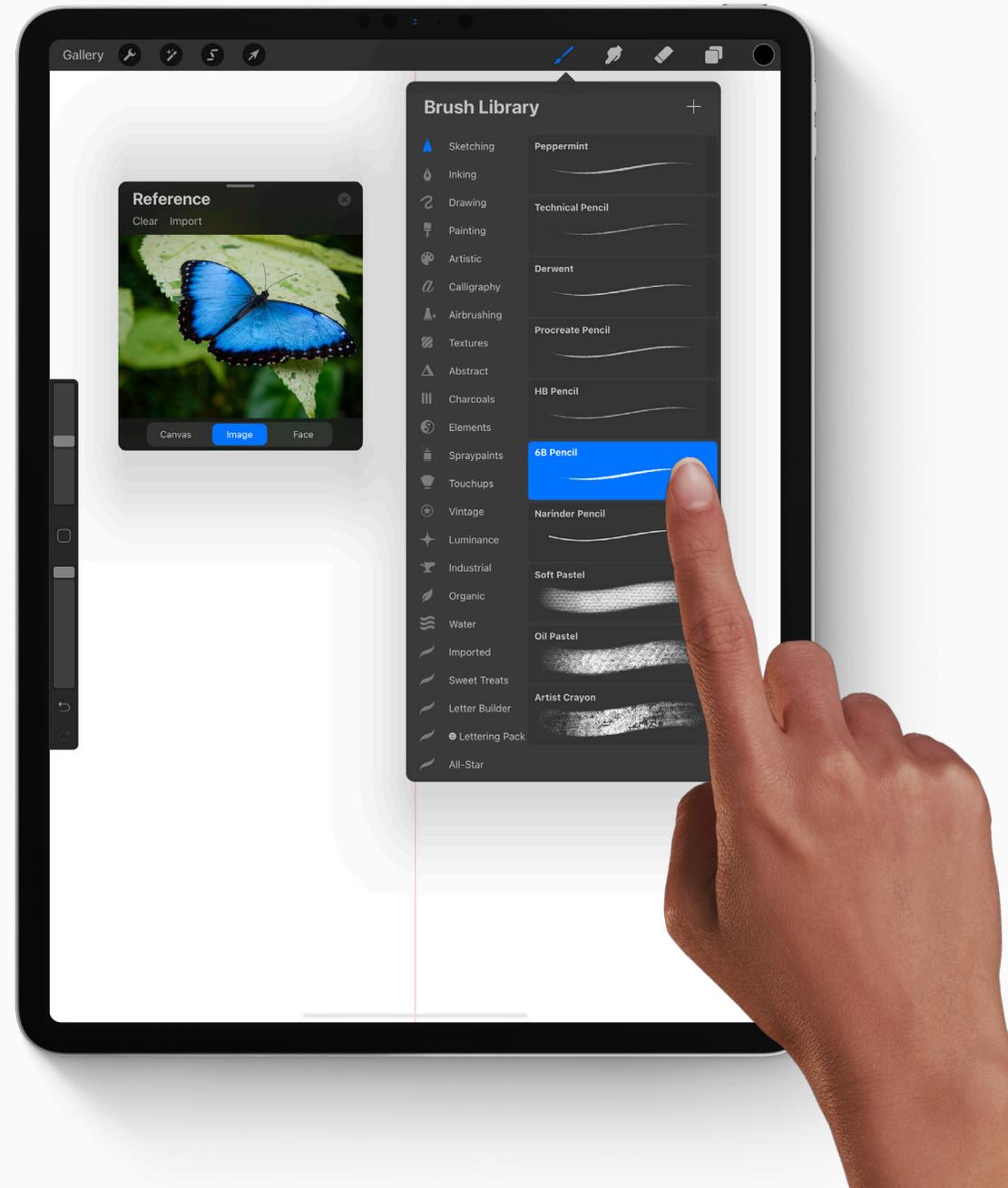


Sketch

Select a brush

Using your reference image as a guide, do a few sketches of your symmetrical creature or object.

- 1 Tap the *Brush* icon in the top-right menu to open the Brush Library.
- 2 Tap *Sketching*, to open the Sketching Brush set.
- 3 Select *6B Pencil*.



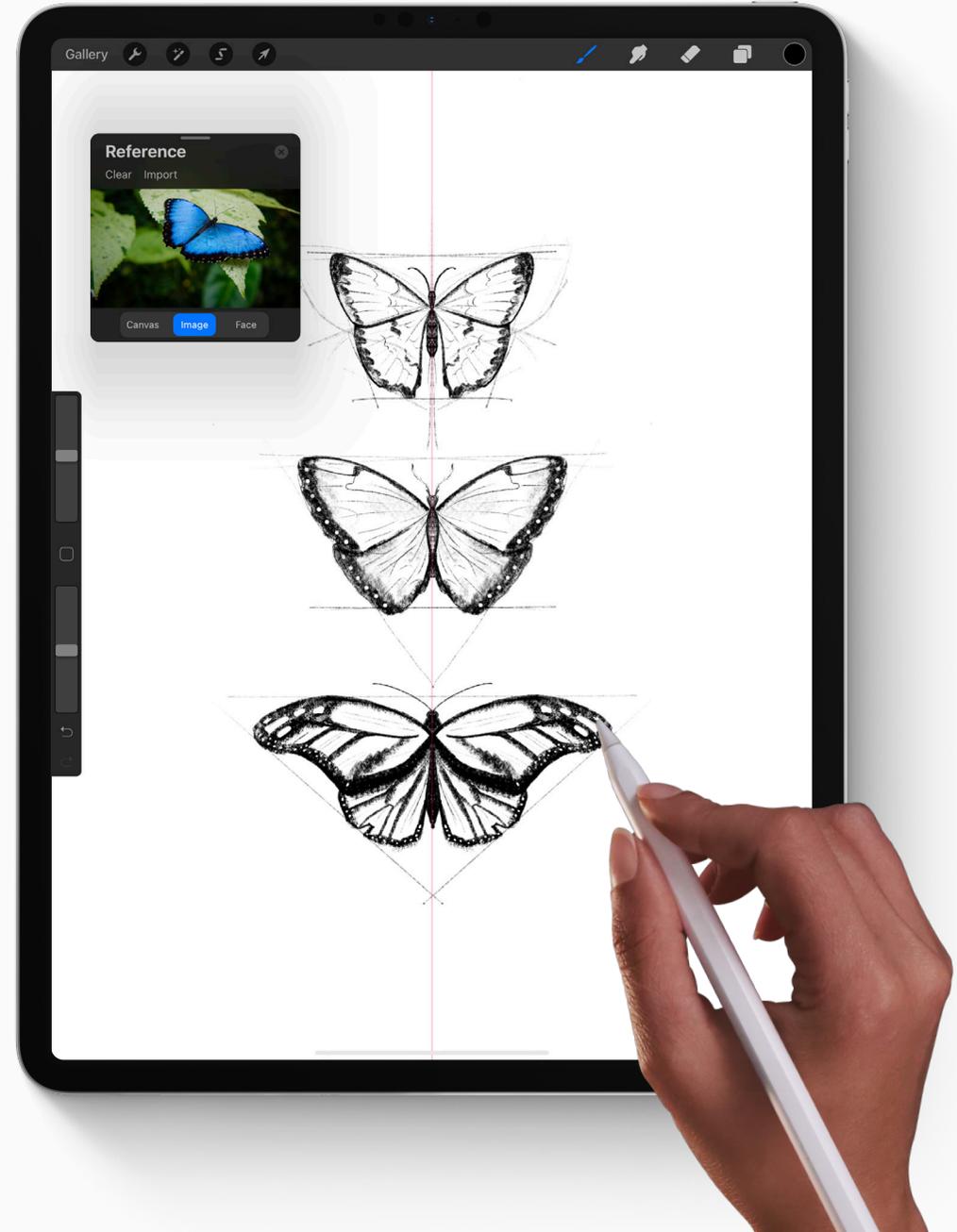
Sketch your creature

With your sketch brush selected, draw a few versions of your creature in symmetry.

Sketching in *Drawing Assist* mode means that everything you draw on one half of the guide is mirrored on the other. It means your drawings will be perfectly symmetrical.

DRAWING TIP

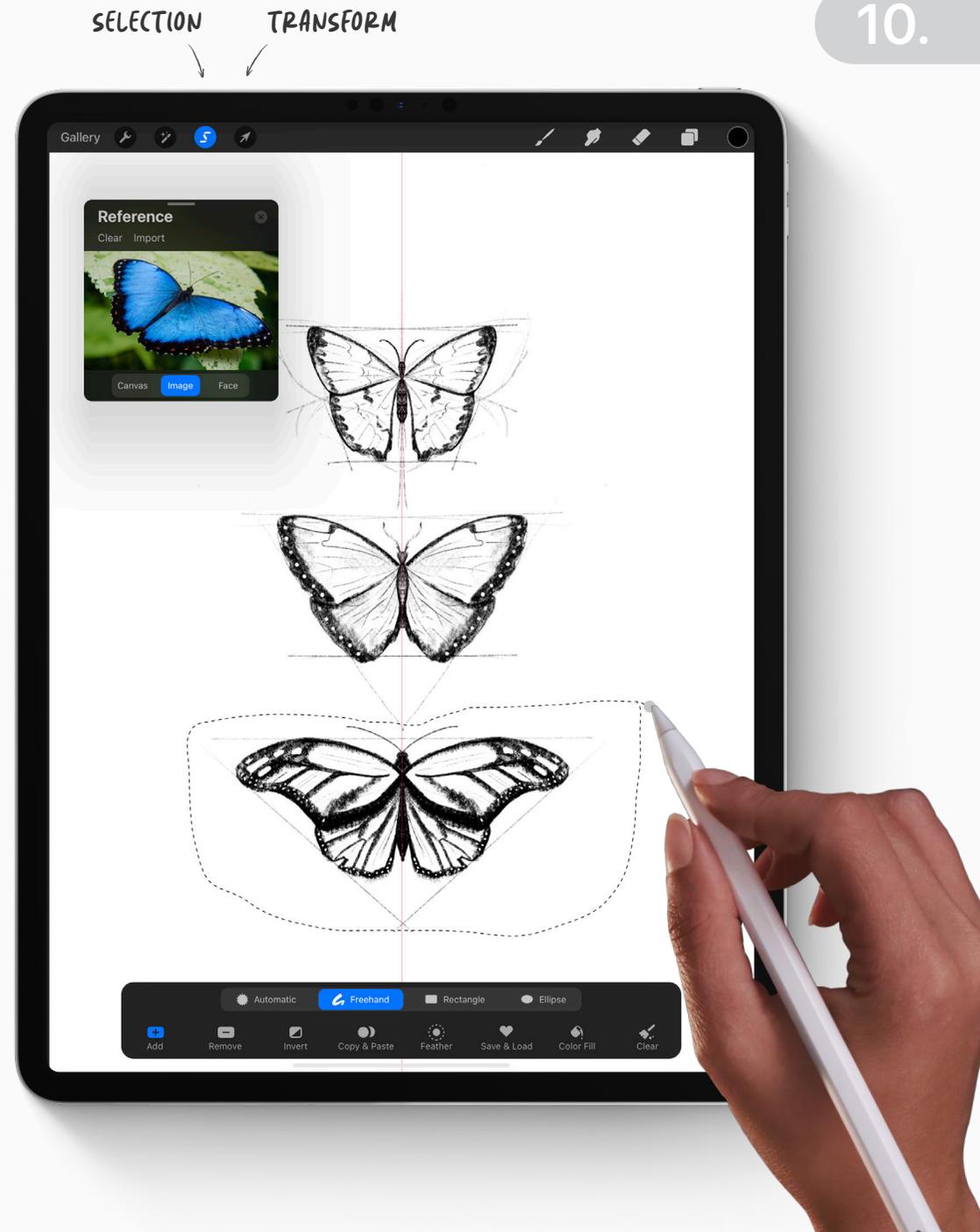
Remember your illustration doesn't have to look completely realistic. You might choose to exaggerate patterns, simplify shapes to make them more geometric, or over saturate colors so they are brighter than they appear in real life.



Refine your design

Select your preferred sketch

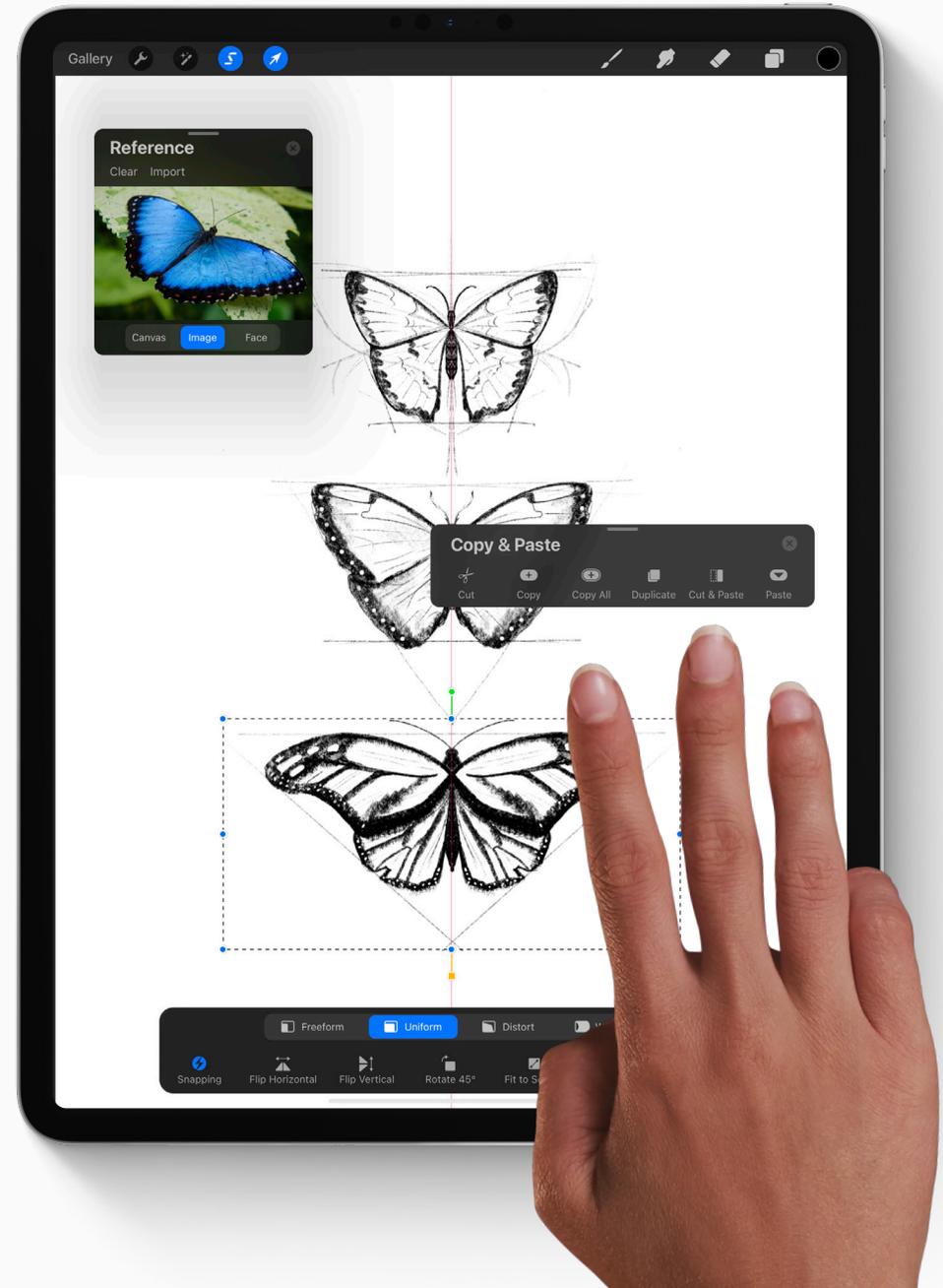
- 1 Tap the *Selection* icon in the top-left menu.
- 2 Then select *Freehand* from the four Selection options in the bottom menu.
- 3 Draw around the sketch you'd like to progress into a final design, and tap the arrow icon to enter *Transform* mode.



Cut and paste

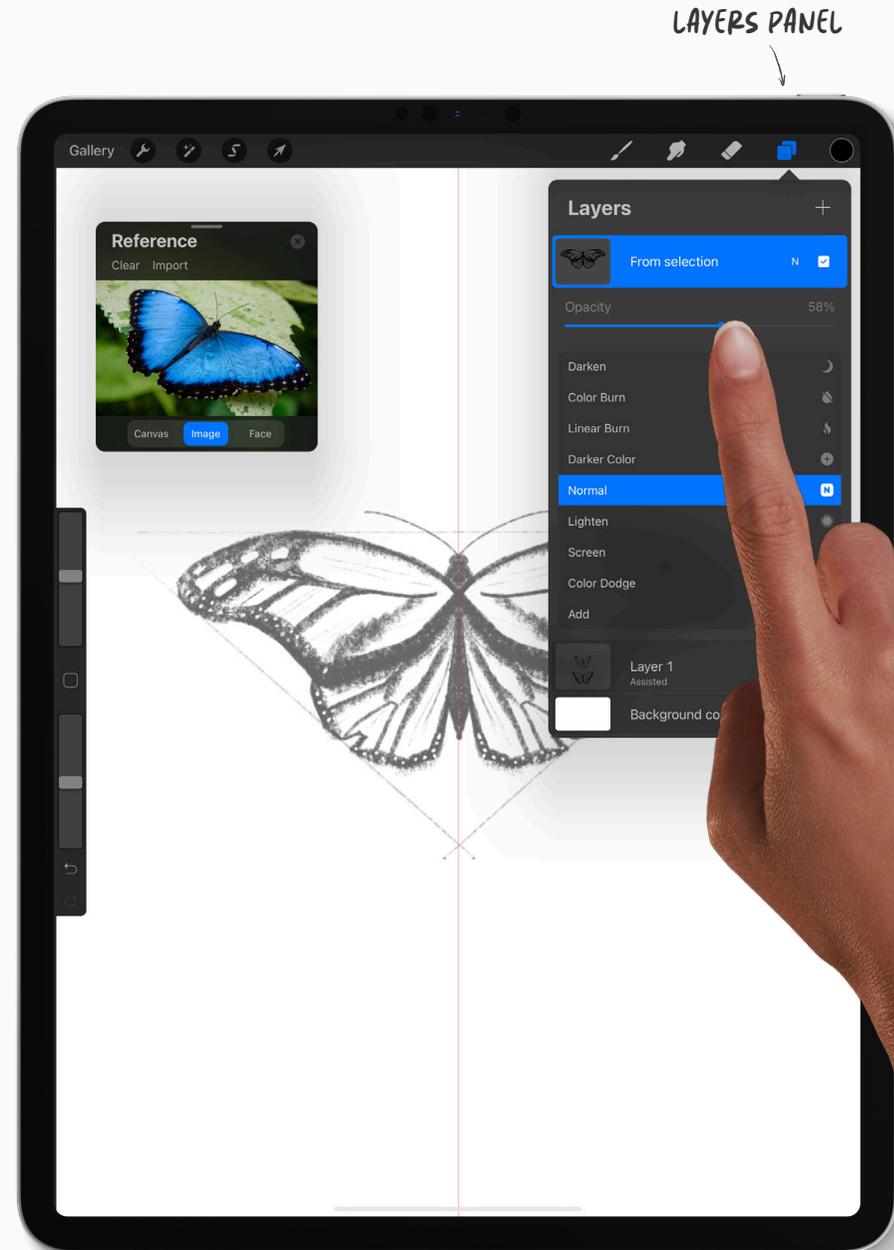
Swipe down with three fingers anywhere on the canvas to open the *Copy & Paste Menu*.

Then tap *Cut & Paste*.



Organize your layers

- 1 Tap the layers icon in the top-right corner to open the *Layers Panel*.
- 2 Tap the *Visibility Checkbox* next to your original layer to hide the drawings you won't be using.
- 3 Tap the *N* next to your chosen drawing to open the *Blend Modes* menu.
- 4 Drag the slider to the left to decrease the *Opacity*. This makes it more faint for you to trace over.
- 5 Finally, tap the arrow icon again to enter *Transform* mode, and enlarge your chosen drawing to fill the page.

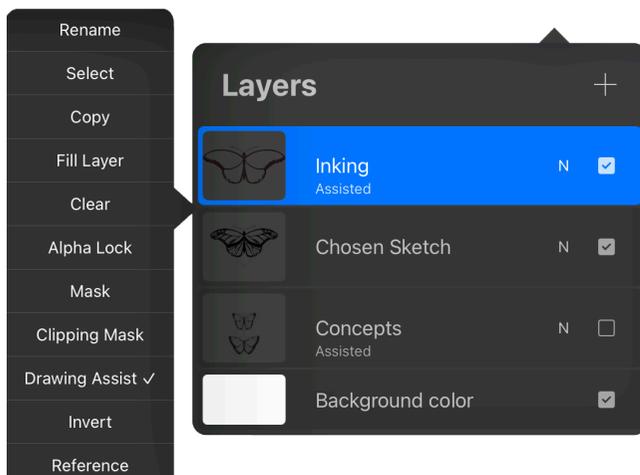
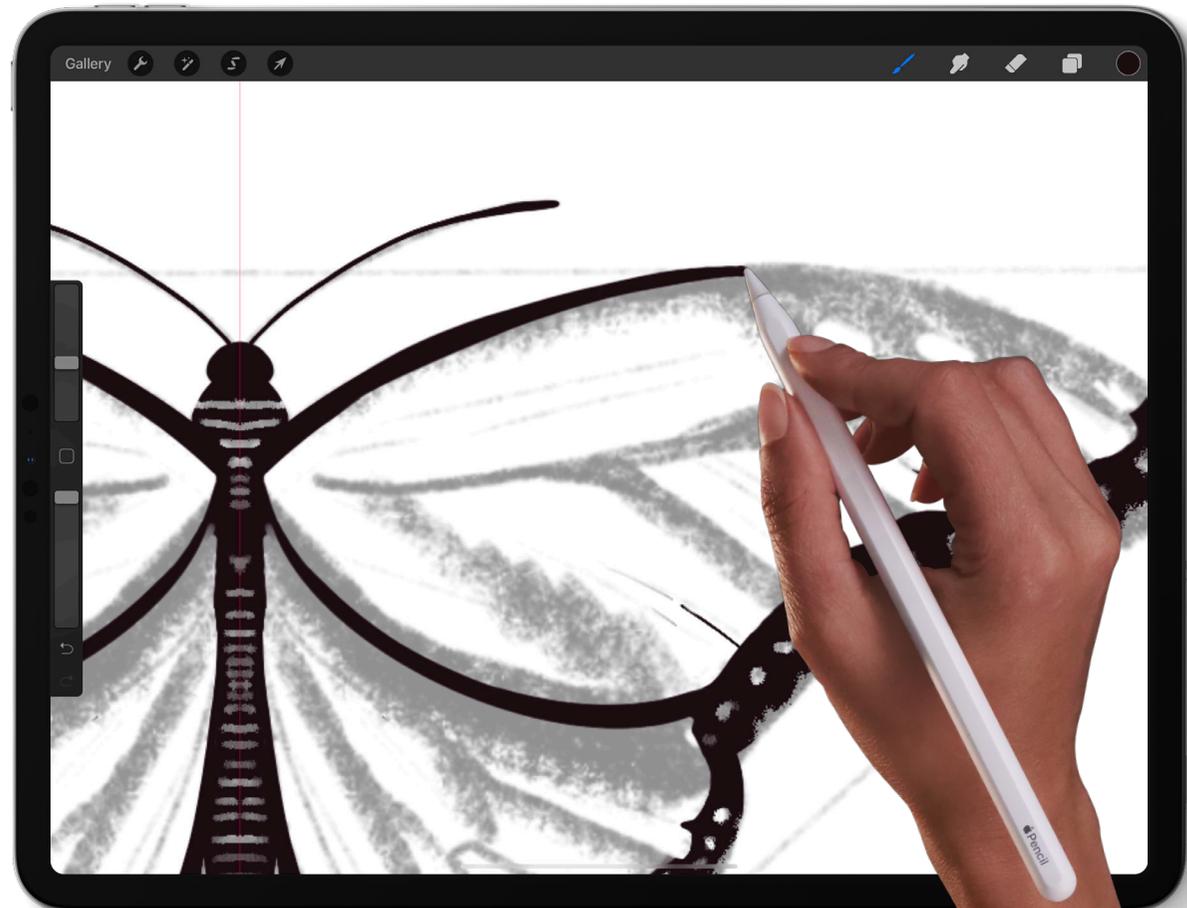


Inking

Confident lines

- 1 Tap the Brush icon in the top right corner to open the *Brush Library*.
- 2 Tap *Inking*, and then *Studio Pen*.
- 3 Then tap the layers icon to open the *Layers Panel*.
- 4 Tap your new inking layer to open the *Layer Options Menu*.
- 5 Tap *Drawing Assist* to turn it on.
- 6 Use the *Studio Pen* to ink over your initial sketch, creating a bold drawing of your creature.

BRUSH LIBRARY LAYERS



Adding color

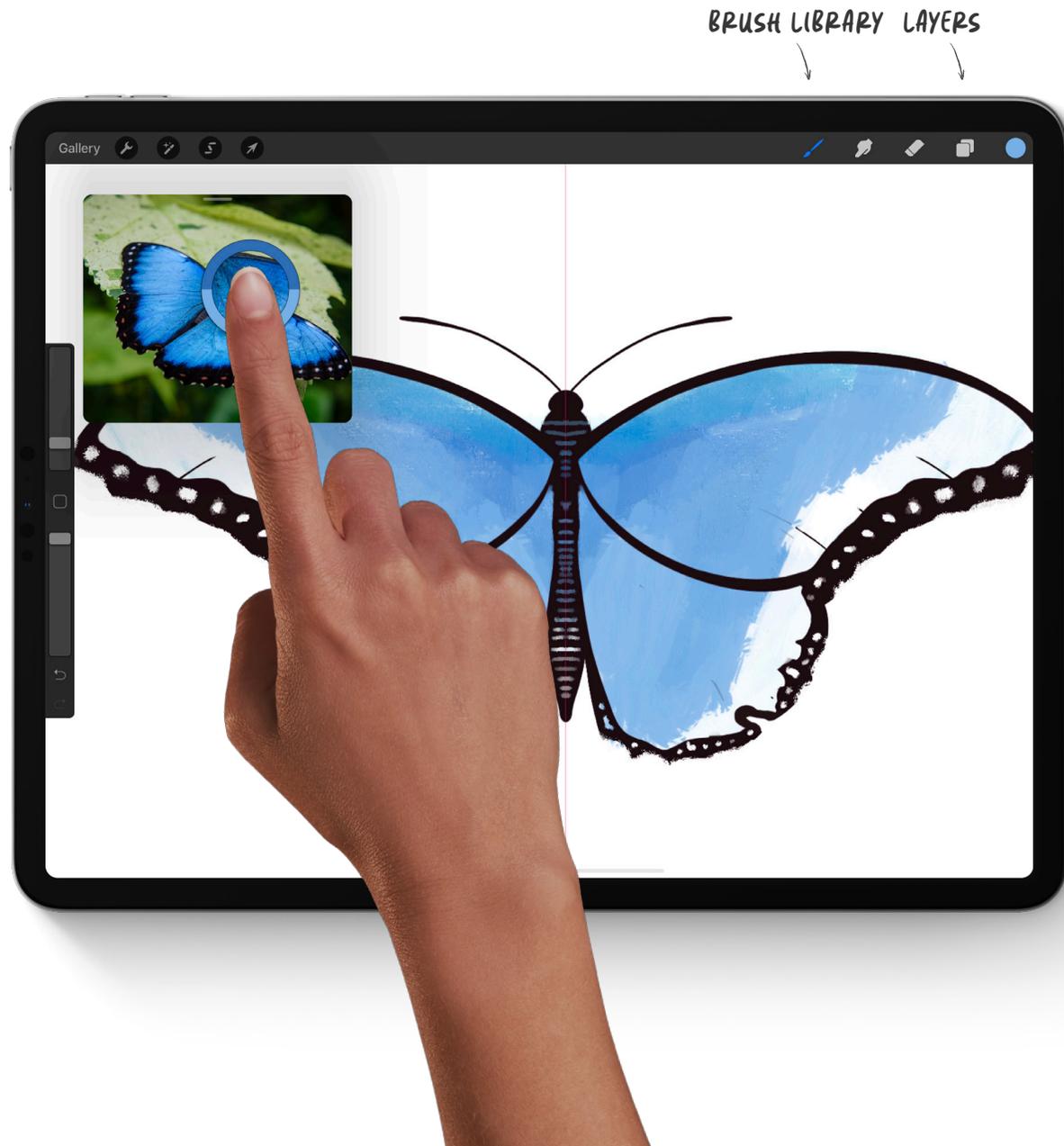
14.

Color your creature

- 1 Tap the Layers icon in the top-right corner to open the *Layers Panel*.
- 2 Tap the + to add a new layer. Make sure this is beneath the first layer.
- 3 Then, tap and hold to open the *Layer Options Menu*. Tap to turn on *Drawing Assist* mode.
- 4 Tap the Brush icon in the top right corner to open the *Brush Library*. Then tap *Painting*, and then select a brush of your choice.
- 5 Start adding color to your creature.

CHOOSING COLOR

You can use the *Eyedropper* tool to select colors straight from your Reference image. Tap and hold with your finger on the part of the image that you would like to choose a color from and start painting.



Painting tips

COLOR HARMONY

The *Color Harmony* tool can help you select colors that work together harmoniously.

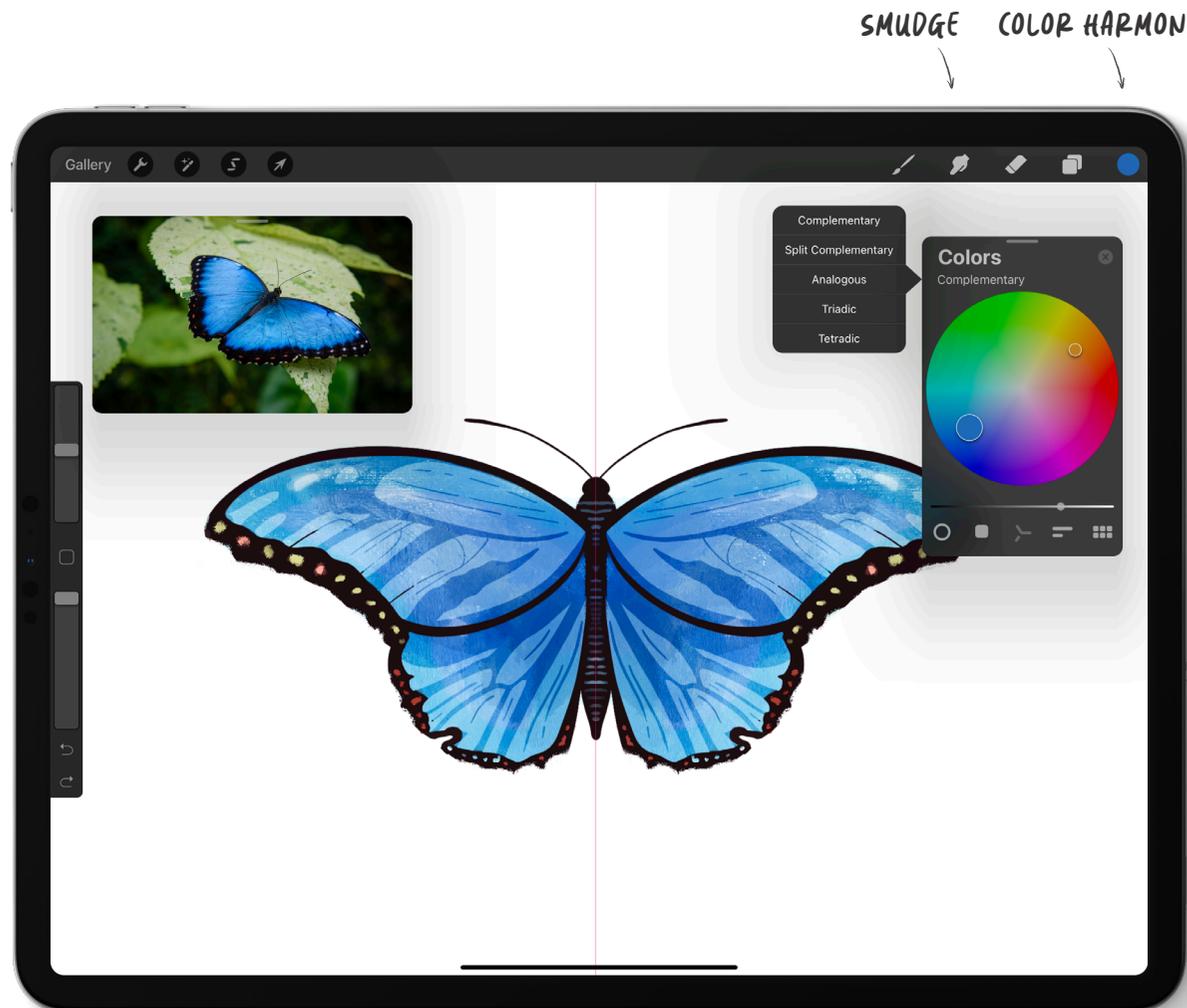
Tap the *Color Button*, then tap *Harmony*. In the top left you can explore the five harmony options and start building a color palette.

SMUDGE

Tap the finger icon in the top right corner to open the smudge tool. This is a great way to blend colors together.

LIGHT AND SHADOW

A part of what makes crawling critters so interesting to look at is the face that they're often shine and shimmer! Look at your reference image and notice the parts of the image that reflect light. Add some white highlights in those places on your painting.



Take it further

16.

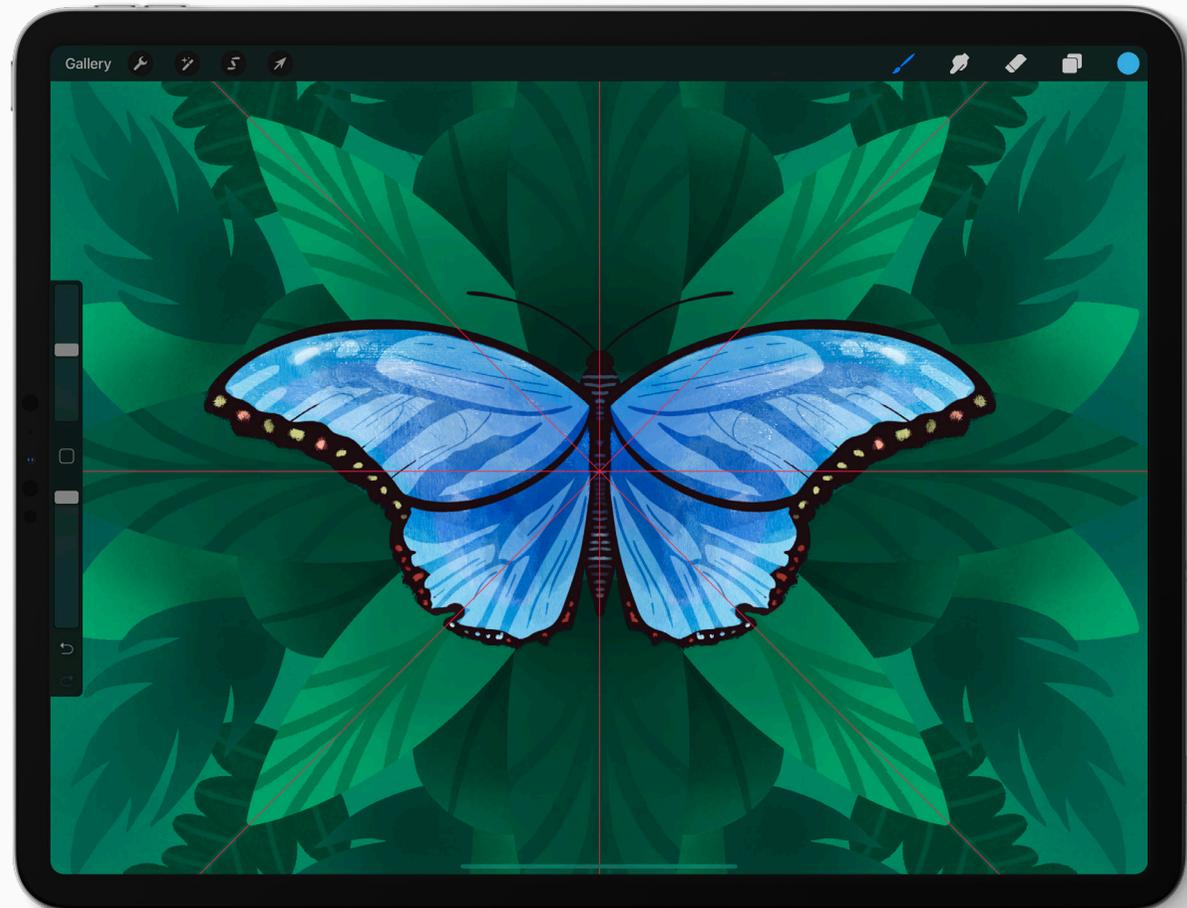
Radial symmetry

Up until now we have been working in *Bilateral symmetry*. This means that the two halves of the page are symmetrical.

You can also set your drawing guides to *Radial symmetry*, which divides your canvas into 8 slices around a central point.

Turn on *Radial Symmetry* guides and use *Drawing Assist* to draw an environmental pattern for your creature to live on.

✳ Tap *Canvas > Edit Drawing Guide > Options > Radial* to turn on Radial symmetry.



Create

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