

# AI-powered Bitmap Effects in Interactive Lenses

Lenses enable you to apply a variety of different effects to an object or image area, without actually changing the object or area itself. In CorelDRAW 2020 you can now apply any bitmap effect as a lens using AI technology. You can also move or manipulate the lens, giving you the freedom to experiment or position the bitmap effect with precision in your design.

## How to Create a Lens

We'll start by creating a lens for the orange sunglasses in this photo that we've imported into a new CorelDRAW document.



Select the **Ellipse** tool from the left toolbar to create the lens shape. Hold down **Ctrl** and **Shift**, and click and drag to draw it out from the center. Move it into place and adjust it to fit.

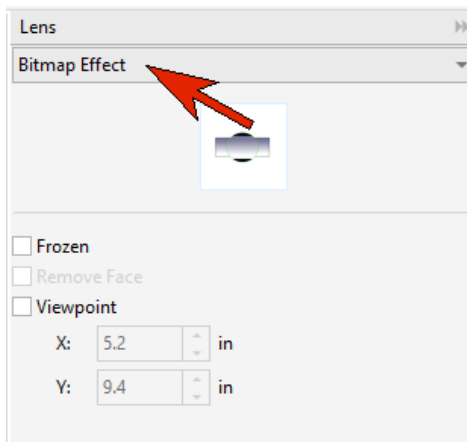


Right-click on the no-color swatch on the **Color** palette to remove the ellipse outline.

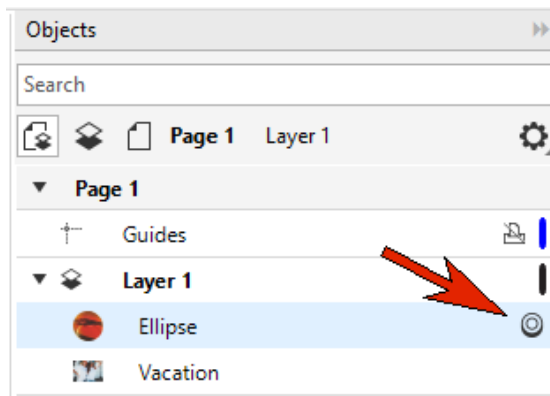


To open the **Lens** docker, go to **Window > Dockers > Effects > Lens**.

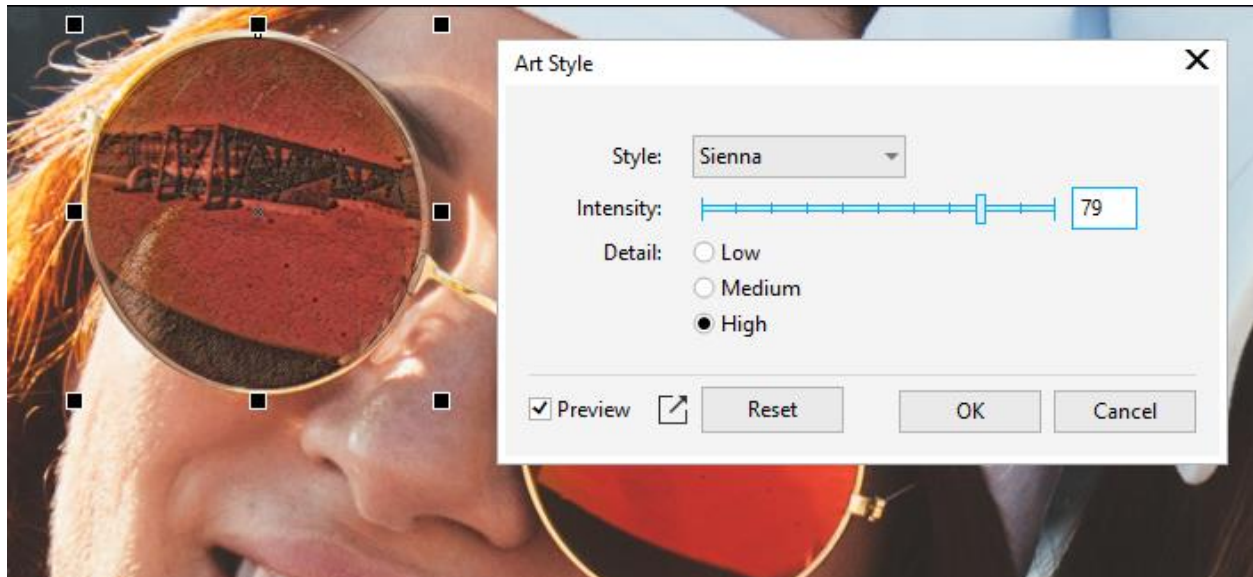
In addition to the lens effect options in previous versions, such as **Brighten**, **Heat Map** and **Invert**, there is now **Bitmap Effect**. Select this type of lens.



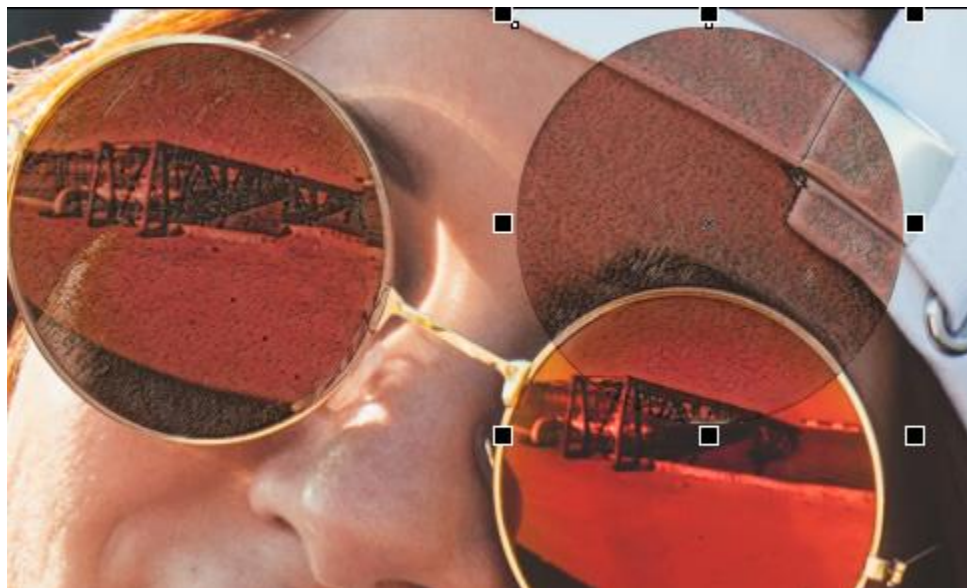
Now you can choose the actual bitmap effect to apply. Back in the **Objects** docker, we can see that this ellipse is now a lens.



From the **Effects** menu, we'll try a **Creative > Art Style** effect, using the **Sienna** style with high detail and intensity.



To apply the same lens to the other side of the sunglasses, simply press **Ctrl + D** to duplicate it. As you move the copied lens around, whatever is below the lens (in this example, the band of the hat) gets the same bitmap effect.



We'll place the copied lens within the second frame of the glasses and adjust as needed.



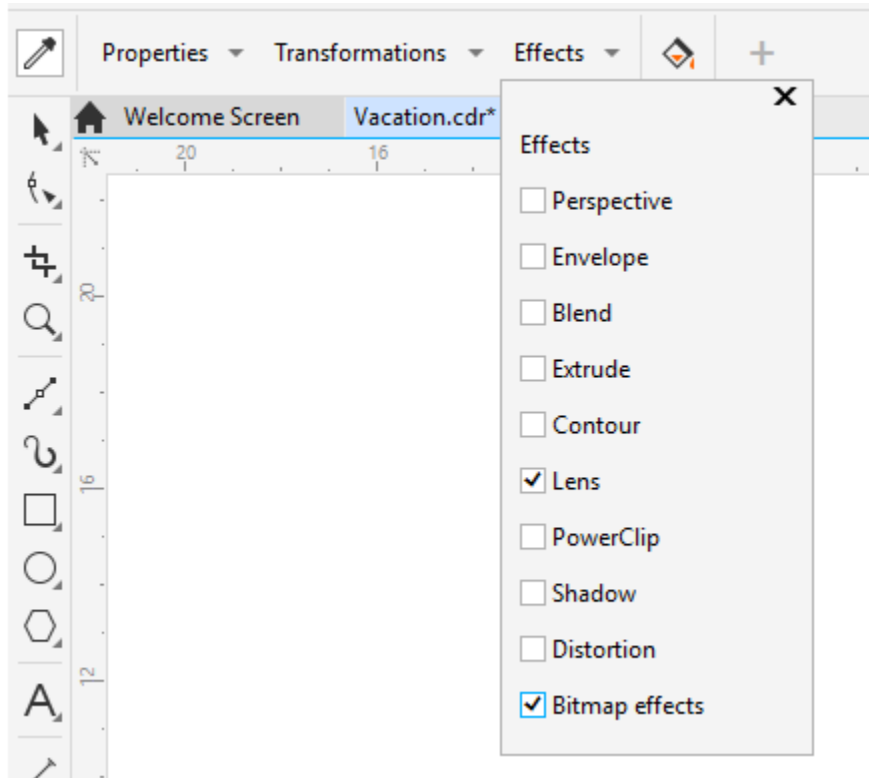
To place a lens above the blue sunglasses, the **Ellipse** tool won't work on the left side. So we switch to the **Bézier** tool and trace around the visible part of this side of the glasses, and double-click to close the curve.



As before, we click on the no-color swatch to remove the curve outline.

## How to Copy a Lens Effect with the Attributes Eyedropper

To copy the properties from the previous lens onto this curve, activate the **Attributes Eyedropper**. In the property bar, under **Effects**, select both **Lens** and **Bitmap Effects** to copy their attributes.

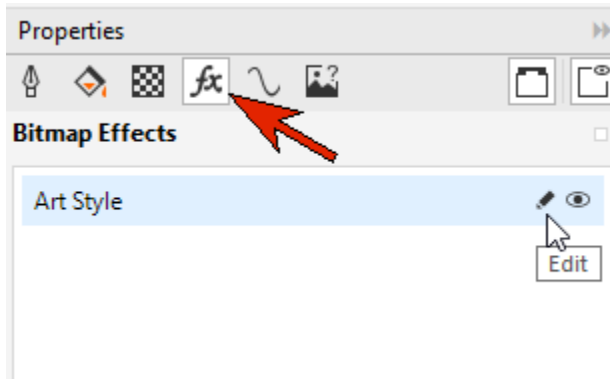


Click the **Sienna**-effect lens to sample its attributes and drop them into the new curve.

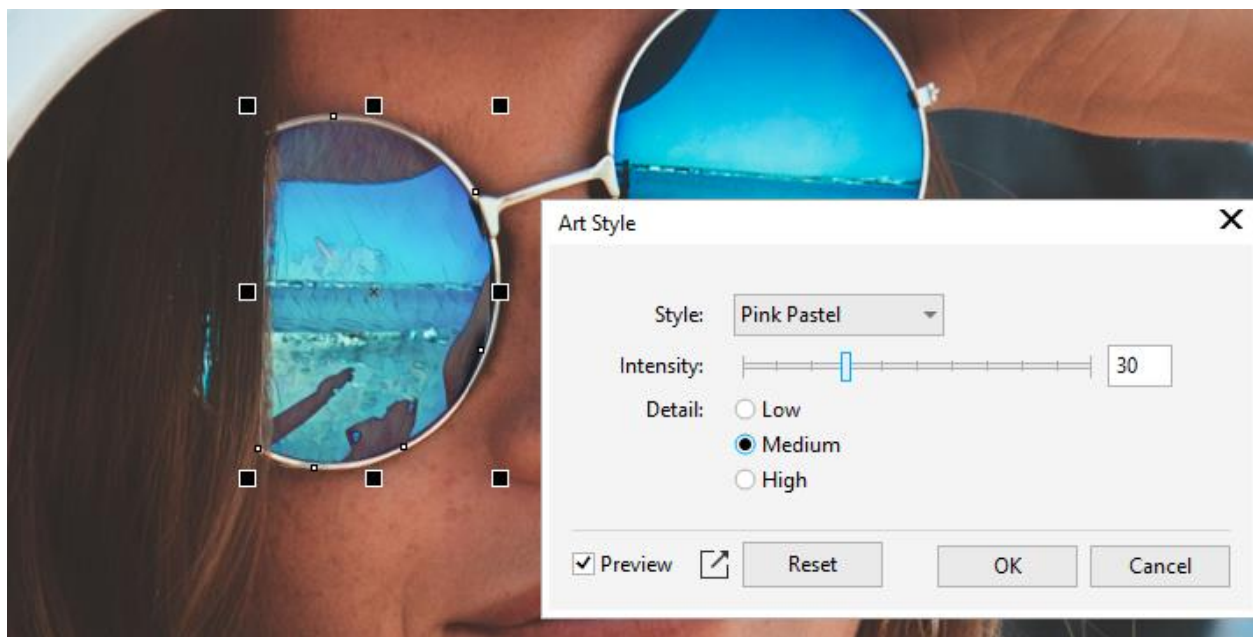


## How to Edit a Lens Effect

The **Sienna** art style doesn't work as well for these glasses, so open the **Properties** docker (**Window > Dockers > Properties**) to the **FX** tab, and double-click the **Art Style** effect in order to edit it.



**Pink Pastel** with lower intensity and detail works nicely here.



For the other eye, select one of the round lenses and duplicate it, move it into place, and use the **Attributes Eyedropper** to copy the **Pink Pastel** lens attributes.

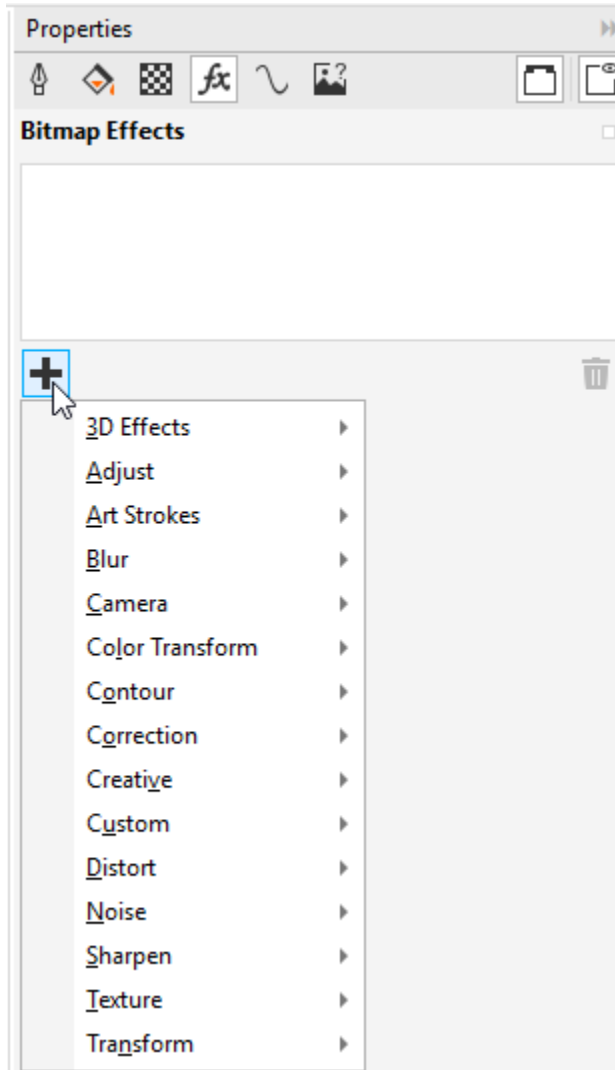


Another way to apply a lens is to trace the area you want to define. To apply a lens to one of the white t-shirts, we activate the **Freehand** tool and carefully trace around the outer edge of the t-shirt.



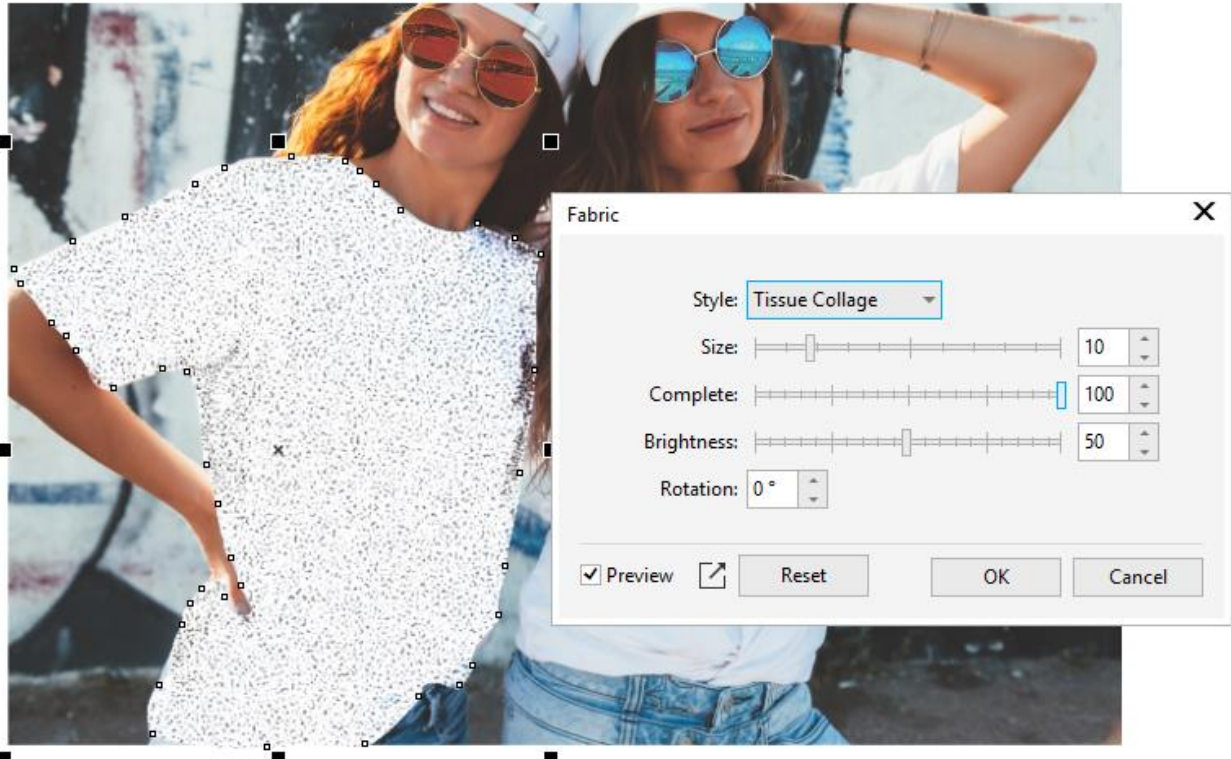
Remove the outline and use the **Lens** docker to add a **Bitmap Effects** lens.

Rather than use the **Effects** menu, this time we'll go straight to the **FX** tab of the **Properties** docker to show another way to add effects. Here you can use the **Plus** sign to open the same list of effects that appears in the **Effects** menu, as well as the **Adjust** options.

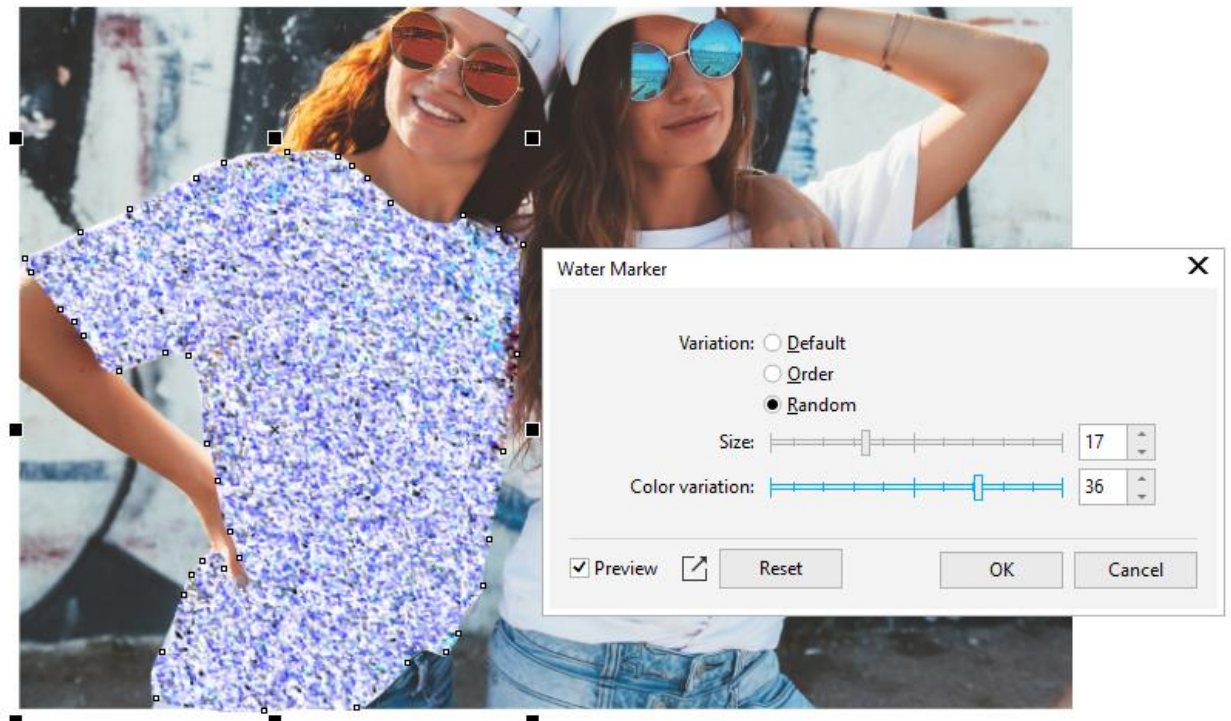


For this example, we started with a **Creative > Fabric** effect and chose the **Tissue Collage** style.





On top of that, we added an **Art Strokes > Water Marker** effect.

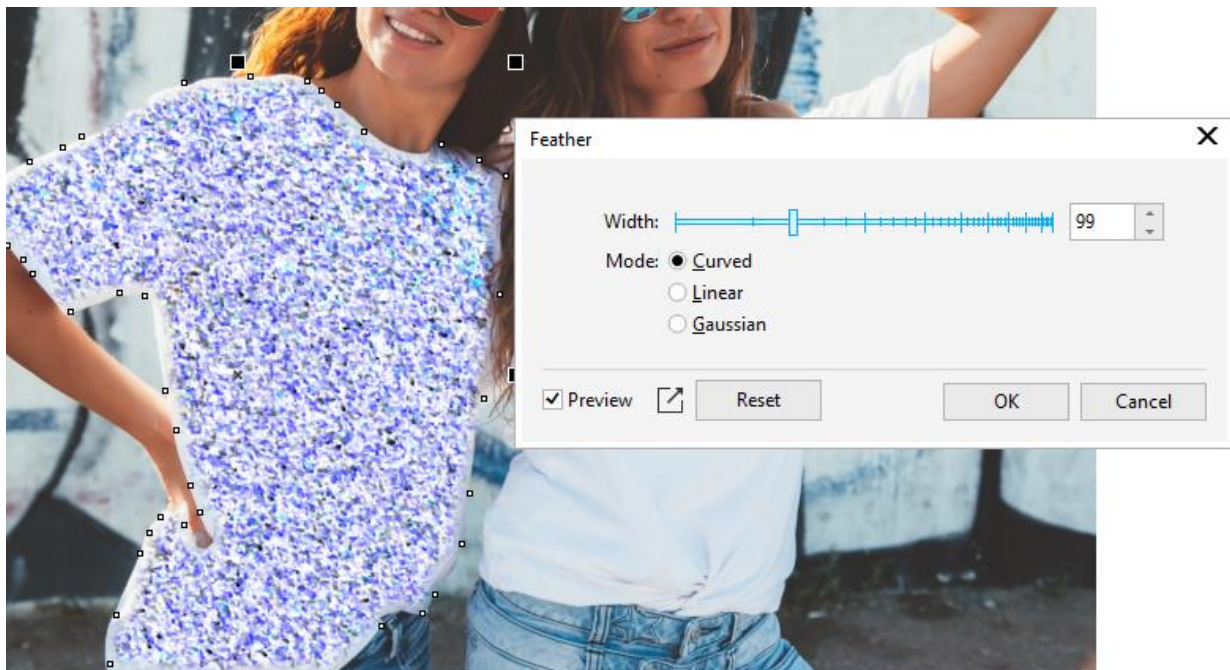


With the effects applied, it's easier to see the spots along the lens boundary that don't quite line up with the shirt. You can tweak this with the **Shape** tool, by moving nodes. Add nodes where needed by double-clicking.



## How to Blend with the Feather Effect

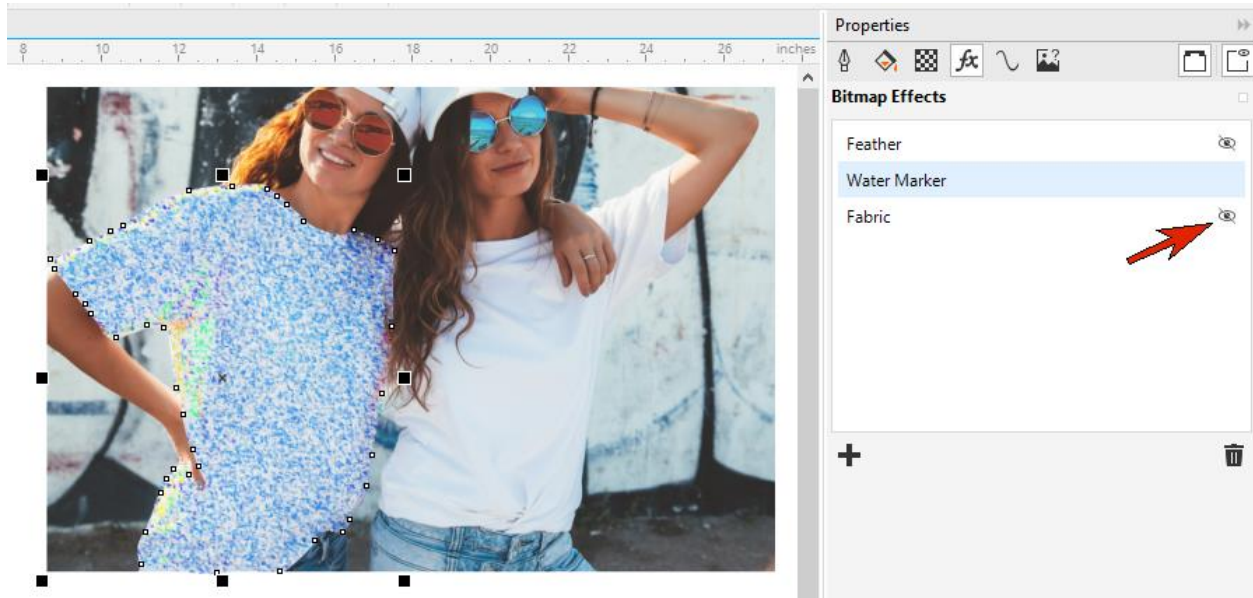
To avoid some of the painstaking work of fixing the boundary, we can use the new feathering effect. Choose **Blur > Feather** from the **Effects** menu or **FX** tab of the **Properties** docker and adjust the boundary width and mode. This increases the effect transparency along the edges, which makes the other effects blend seamlessly with the rest of the photograph.



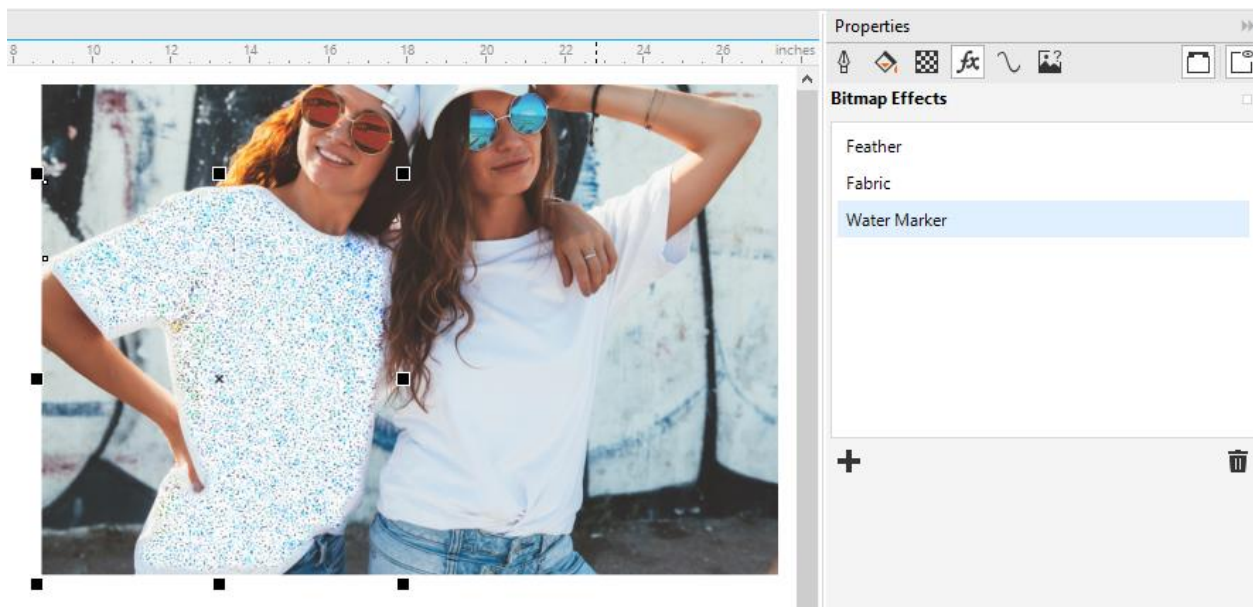
## Experimenting with Lens Effects

As with all bitmap effects, lens effects can be combined, re-ordered, and toggled on and off from the **Properties** docker.

In the **FX** tab, you can turn effects on and off with the **Visibility** (eye) icon.

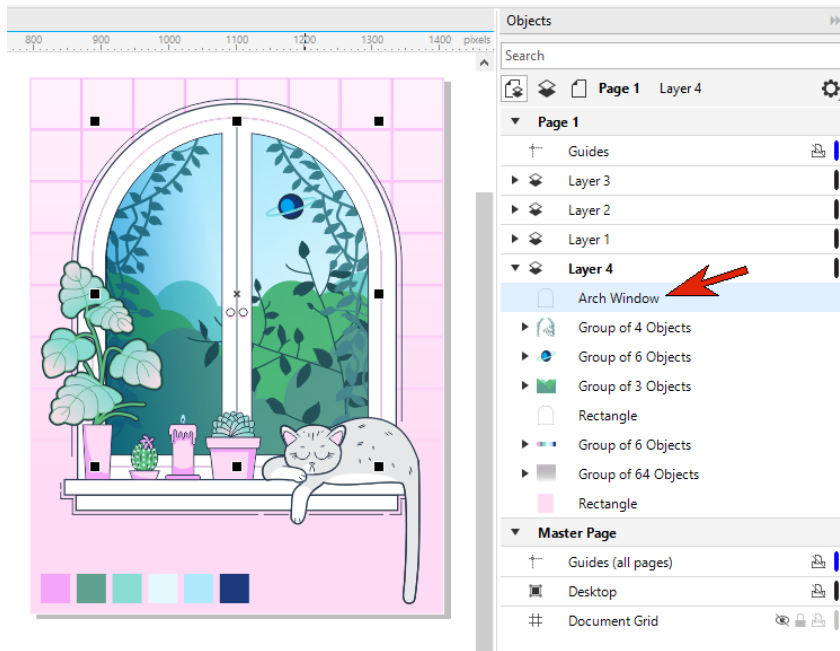


You can double-click on an effect to adjust its settings or drag an effect up or down in the list to rearrange effect order.

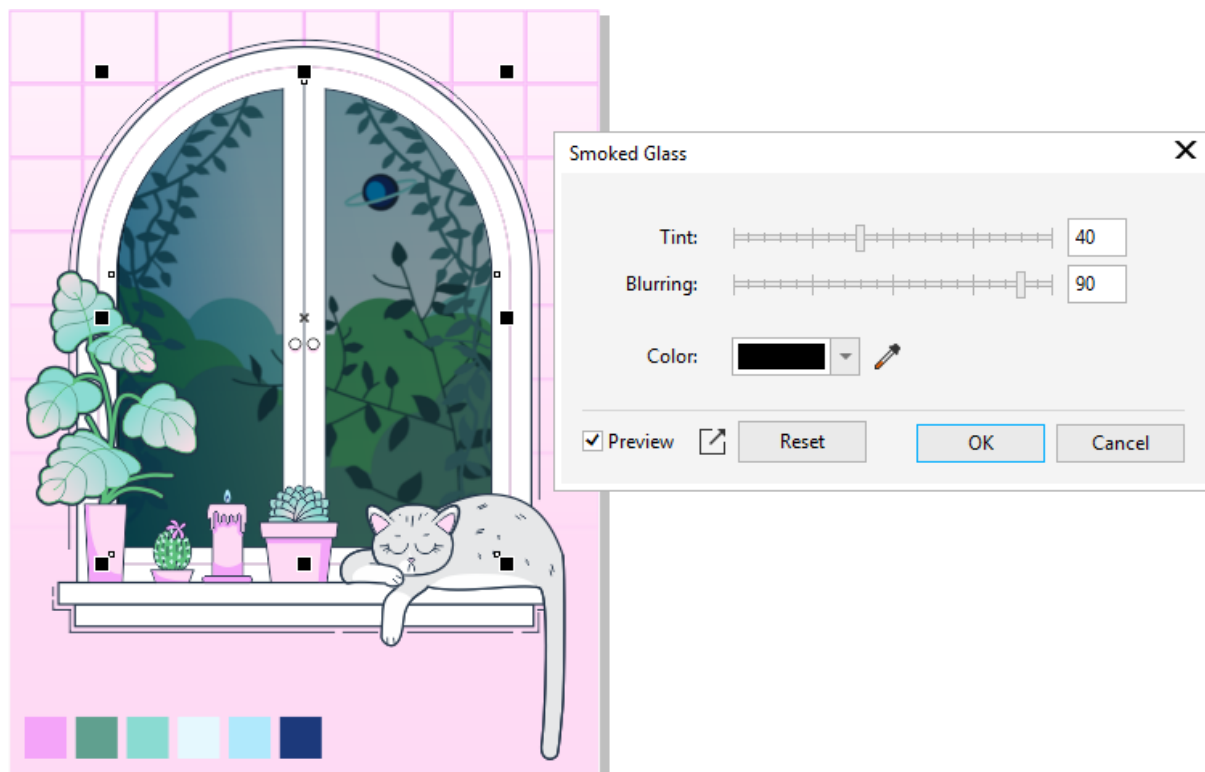


## Applying a Bitmap Effects Lens to Vector Objects

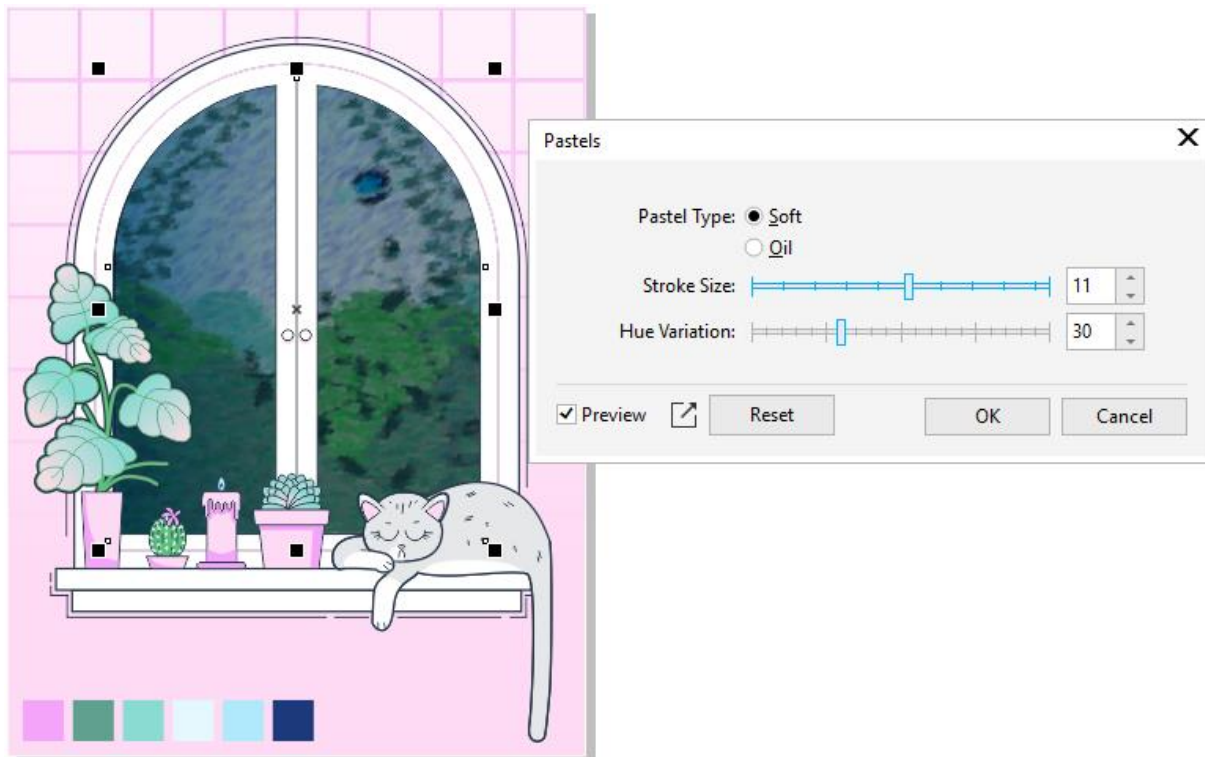
Lenses can be used to apply bitmap effects to vector objects as well. In this document, let's apply a bitmap effects lens to the curve that defines the arch window.



With that curve selected in the **Objects** docker, add a bitmap effects lens. Then add a **Creative > Smoked Glass** effect to darken and blur a bit.



Then choose an **Art Strokes > Pastels** effect to add a painted look.



The beauty of working with lens is that you can move and manipulate them to freely position effects with precision in your designs. And with Bitmap Effects now available in CorelDRAW 2020, you have a wide variety of styles that you can explore and combine with other effects to create your own unique look.