

!! "Tote"-ally Terrific! !!

What design will you create on your bag?



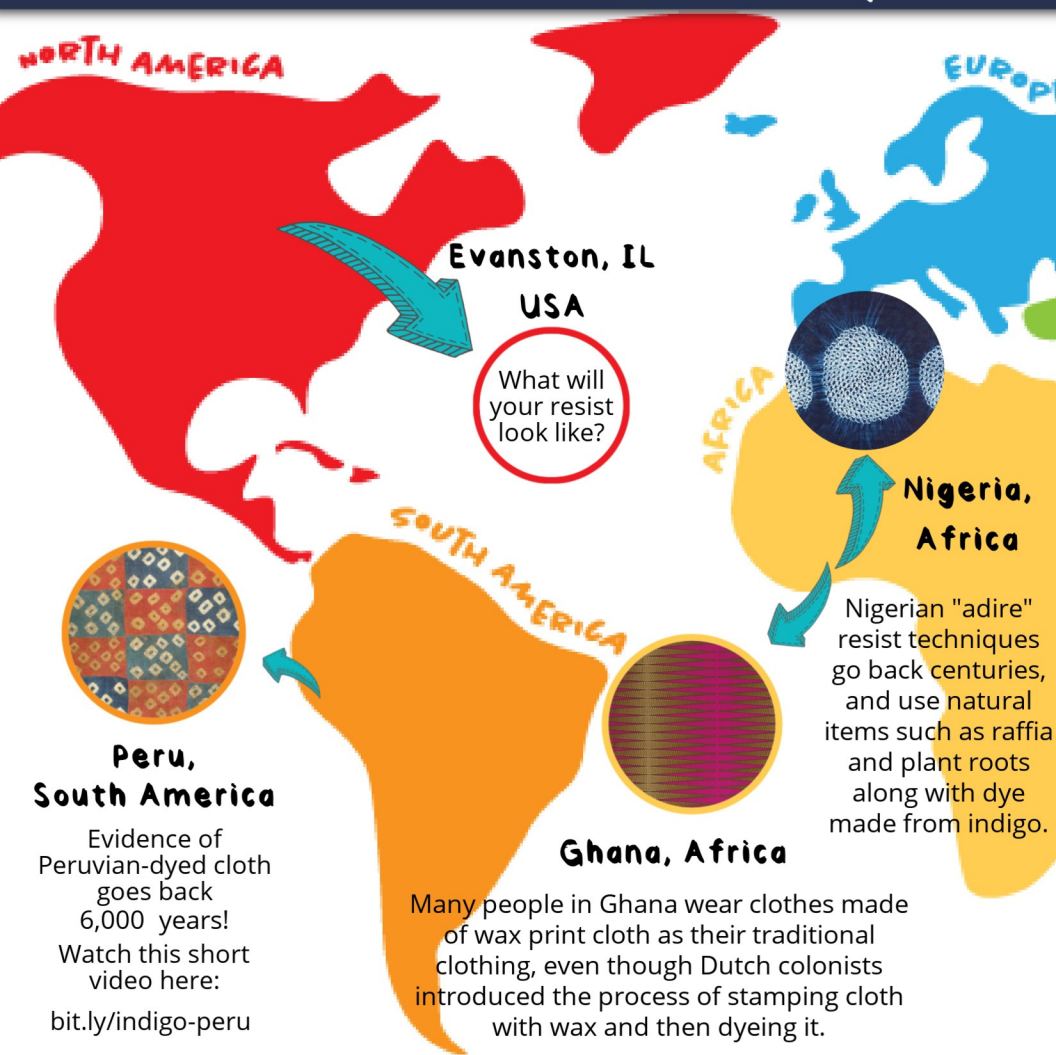
Have you tried a resist art technique?

People have created resist cloth for thousands of years - batik, wax print, shibori, tie-dye... Now you'll have a chance to try it on a canvas tote bag!

First, make designs on fabric with something that won't let paint seep through, like beeswax (you'll use glue). Then, dye the fabric (you'll paint it). Once it's dry, wash off the "resist" (the glue). You're left with a beautifully edged, colorful design.



Be inspired!



Ghanaians attach names, meaning and stories to each of the different fabric patterns. For example, this pattern is known as "Nkrumah's Pencil" after the first president of Ghana, Kwame Nkrumah. He was an excellent, thoughtful speaker who always wrote his speeches first with sharpened pencils. "His written words served as a weapon against any obstacle in his way." - Vlisco.com

Scratch off the circles on the map to reveal a few beautiful patterns from around the world.

People have been creating beautiful fabrics using "resist" methods all over the world for thousands of years.



Which patterns
do you like?

Design inspiration!

Maybe you'd like to make a nature-inspired design on your bag.



What do all these things have in common?

All of these living things display a special spiral pattern that can be described with the Fibonacci sequence. The Fibonacci sequence is a pattern of numbers.

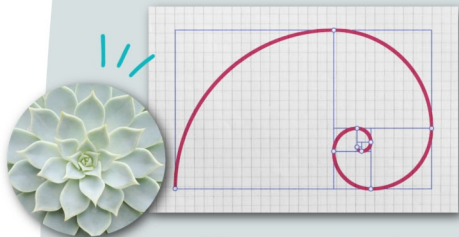
0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, ...

Can you figure out the pattern?

What's the next number?



Take the first two numbers in the pattern and add them together. That will give you the next number in the pattern. Then take the answer and add it to the previous number to give you the next number in the pattern. Give it a try!



Here's another way of looking at the pattern. It shows how the sequence can form the signature spiral shape!

If you count the petals on a flower, chances are that the number will be one of the numbers in the Fibonacci sequence!



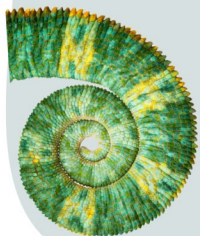
What other things can you find that use the Fibonacci sequence?

Want to learn more?

Watch this incredible (and funny!) short 3- video series about patterns in nature that use the Fibonacci sequence.

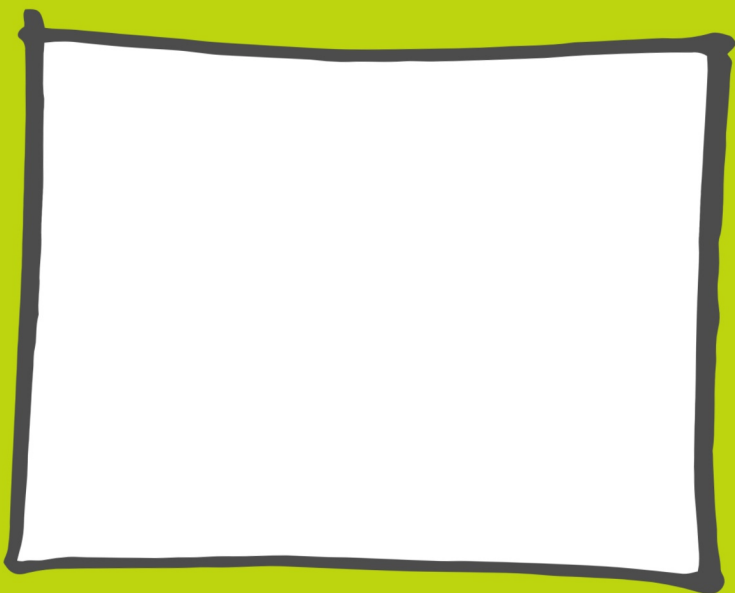
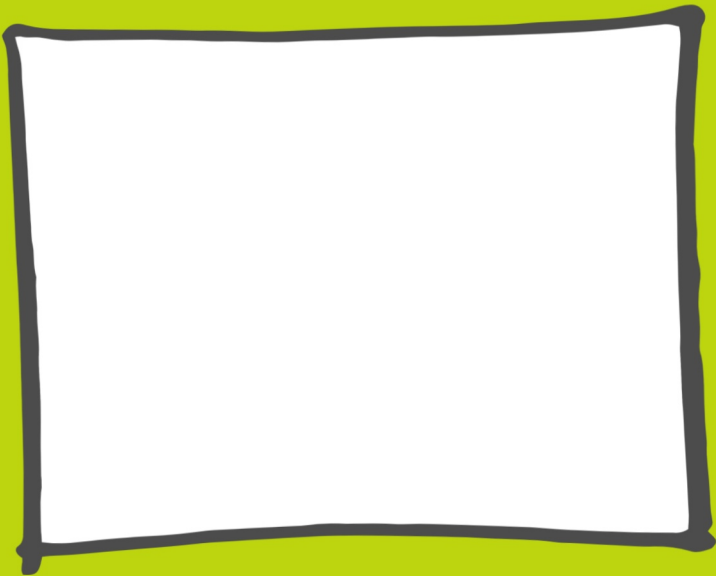


bit.ly/EPL-fib



Design Time!

Use this space to sketch out some possible designs.



**Remember - you can decorate
BOTH sides of the tote bag!**

How to make your

1 Put some cardboard in the bag.

The cardboard will keep the glue and paint from sticking to the other side of the bag.



2 Draw your design with the glue.

- The fabric you cover with the glue will not get paint on it, and the glue-covered parts will be the natural color of the bag once washed.
- You can use the glue bottle directly to draw the design, OR you can put some glue into a cup and use a toothpick to draw finer details.
- If you don't like your glue design, you can wash it off with warm water and start over.



3 Let the glue dry completely.

This can take a few hours or even overnight.

4 Get ready to paint!

- Protect your work surface with paper towels or cardboard.
- This acrylic paint is not washable.
- Then, get some water. You'll need water to wash your paintbrush off, and to thin your paints.

glue resist tote bag

5 Thin the paints.

The paint in the pots is too thick for this project - it will work better if you make a thinner consistency.

You can also mix colors at this time if you like!

Add a little water to each cup and stir until smooth.



6 Paint your heart out!

It's okay to paint on top of the dried glue.

Wash your brush between using colors.

If you make a mistake, you can wait for the paint to dry and paint over it with a new color.

Once you're done, let the paint dry completely.

This may take a few hours or overnight.

Clean up your mess yourself, or ask for help from your grown up. Be sure to say thank you!



7 Wash out the glue.

Remove the cardboard.

Check to make sure the paint is completely dry.

Use warm water to scrub off the dried glue.

It might look like some of the paint is coming off, but it's just the paint-covered glue.

Put the tote bag in the washing machine on a warm setting to remove any remaining glue.

Let the bag air dry.

If you wish, repeat the process on the other side of the bag.

It's a fun way to try out two different designs!



Como disenar tu propia bolsa usando pegamento!

1

Ponga un poco de carton en la bolsa

El cartón evitará que el pegamento y la pintura se peguen al otro lado de la bolsa.

2

Dibuja tu disenio con el pegamento

La tela que usted cubre con el pegamento no se manchará de pintura y las partes cubiertas con pegamento serán del color natural de la bolsa una vez lavadas.

Puede usar la botella de pegamento directamente para dibujar el diseño o puede poner un poco de pegamento en una taza y usar un palillo para dibujar los detalles.

¡Sin miedo! Si no le gusta el diseño de su pegamento, puede lavarlo con agua tibia y empezar de nuevo.

3

Deja que el pegamento se seque por completo

Esto puede tardar unas horas o incluso toda la noche.

4

¡Preparate para pintar!

Proteja su superficie de trabajo con toallas de papel o carb. Esta pintura acrílica no es lavable.

Traiga un poco de agua. Necesitará agua para lavar el pincel y diluir la pintura.

5

¡Ahora a diluir las pinturas!

La pintura en los trastes son demasiados espesos para este proyecto; funcionará mejor si hace una consistencia más delgada.

¡También puede mezclar colores en este momento si lo desea!

Agregue un poco de agua a cada taza y revuelva hasta que quede suave y más diluido.

6

¡Pinta hasta que no puedas mas!

Está bien pintar encima del pegamento seco.

Lava tu pincel entre cada color.

Si cometes un error, puedes esperar a que la pintura se seque y pintar sobre ella con un nuevo color.

Una vez que hayas terminado, deja que la pintura se seque por completo.

Esto puede tardar algunas horas o toda la noche.

Limpia tu desorden tú mismo o pídele ayuda a tu adulto. ¡Asegúrate de dar las gracias después!

7

Lave el pegamento

Retire el cartón y verifique que la pintura esté completamente seca.

Usa agua tibia para quitar el pegamento seco. Puede parecer que se está desprendiendo parte de la pintura, pero es solo el pegamento cubierto de pintura.

Coloque la bolsa en la lavadora usando agua cálida para eliminar cualquier resto del pegamento. Deje que la bolsa se seque. No use la secadora, cuélgala en un lado para que se seque al aire libre.