

SOLAR PRINT FABRIC



The Sun gives life to everything on Earth. It provides energy that allows flowers, plants, and trees to grow. Animals and humans eat the fruits, vegetables, and nuts that grow from them. Earth's seasons, weather, climate, and ocean currents also depend on the Sun.

Temperatures on the Sun can reach 15 million degrees Celsius. It's no wonder it keeps Earth warm! It may be 93 million miles away from us, but it only takes a little over 8 minutes for its rays to reach the Earth's surface. In this activity, we'll rely on the sun's rays to dry wet fabric and leave cool nature-inspired prints behind.



Kelly Korreck is an astrophysicist who builds and operates instruments to study the Sun.

FUN FACT:

The Sun is the largest object in our solar system. It's 110 times bigger than Earth!



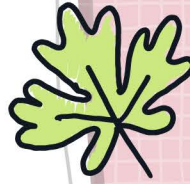
YOU WILL NEED:

- 100% cotton fabric*
- bowl of water
- fabric paint
- paint brush
- paper cup
- flowers, petals, and leaves
- plastic trash bag

*We're using a bandana, but a t-shirt, bag, or fabric by-the-yard will work too!

SAFETY FIRST!

Always ask
an adult
for
permission
and
help.



STEP 1:

Protect a surface outside by laying down a flat plastic bag. Dip your cotton fabric in a bowl of water and squeeze out the excess water. Lay the fabric flat on the covered surface.



STEP 2:

Mix a small amount of paint and water in a paper cup. It should be half water, half paint. Stir with brush to mix. Mix as many colors as you'd like!

STEP 3:

Now paint the wet fabric.



STEP 4 :

While the paint and fabric is wet, press leaves, petals, and flowers onto the fabric. Press down firmly.

STEP 5:

Let the fabric dry completely in the sun for a few hours. The sun's rays are strongest between 10 a.m. and 4 p.m. Use rocks to hold down the bag from blowing away.



STEP 6:

Once dry, remove the petals, leaves, and flowers.



THINK ABOUT IT!



How does wet fabric dry in the sun? **Evaporation!** The heat from the sun warms the surface of water then makes the water molecules move faster and faster. This movement makes the liquid water turn into water vapor, which is a gas, and it becomes part of the air.

The parts of the fabric that are covered by leaves or flowers are protected from the sun's heat. That means those areas stay wet for longer. But as the areas dry around them, the water from the wet areas get pulled to the drier areas--as well as the paint pigment! That's how white areas appear on the fabric in the shapes of leaves and petals.

LEARN MORE:

Astrophysics for Young People in a Hurry
by Neil deGrasse Tyson
Norton Young Readers, 2019

Sun! One in a Billion
by Stacy McAnulty
Henry Holt and Co, 2018

Solar System for Kids
by Hilary Statum
Rockridge Press, 2020

